CRESCENTA VALLEY WATER DISTRICT

2700 Foothill Boulevard
La Crescenta, California

Agenda for the
Adjourned Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on Tuesday, July 23, 2019 at 7:00 p.m.

Posted: July 19, 2019 at 3:00 p.m.

Any written materials distributed to the Board in connection with this agenda will be made available at the same time for public inspection at the District office located at the above address.

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

At this time the public shall have an opportunity to comment on any non-agenda item relevant to the subject matter jurisdiction of the Board. This opportunity is non-transferable and speakers are limited to one three (3) minute comment.

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of Minutes of the Regular Meeting on July 9, 2019.
2. Ratification of Disbursements for June 2019.

Action Calendar

The public shall have an opportunity to comment on any action item as each item is considered by the Board prior to action being taken. This opportunity is non-transferable and speakers are limited to one two (2) minute comment.

1. **Discussion and Recertification of CVWD's Sewer System Management Plan –** Consideration and motion to recertify the District's Sewer System Management Plan for 2019.
2. **Water Hydraulic Model and GIS Update, Project E-1007** – Consideration and motion to award a contract to Akel Engineering to provide professional consulting services to upgrade CVWD's hydraulic model and associated information for geographical information system (GIS) update for a not-to-exceed cost of $55,263, and establish a contingency amount of $5,530 (10% of contract) to cover the cost of additional work.

Information Items

Written Communications to District/Board

General Manager's Report

Attorney Report

Reports of Committees

- **Engineering Committee**
- **Finance Committee**
- **Employee Relations Committee**
- **Policy Committee**
- **Community Relations/Water Conservation Committee**
- **Emergency Planning Committee**

Director's Oral Reports

Report on issues, meetings, or activities attended by Directors.

Closed Session

Conference with Labor Negotiators - §54957.6

- District negotiators: Nem Ochoa, Ron Mitchell, and James Lee
- Employee organization: AFSCME

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT

REGULAR MEETING, BOARD OF DIRECTORS

July 9, 2019

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Regular Meeting of June 25, 2019, a Regular Meeting was held on July 9, 2019 at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California, with President James D. Bodnar presiding.

At roll call, the following Directors and staff members were present:

Directors:	**James D. Bodnar**
	Kerry D. Erickson
	Kenneth R. Putnam
	Sharon S. Raghavachary
	Judy L. Tejeda
Attorney:	**Thomas S. Bunn**
General Manager:	**Nem Ochoa**
Secretary-Treasurer:	**Ron L. Mitchell**
District Engineer:	**David S. Gould**
Others Present:	**Mark Hass, IT Manager**
	Christy Scott, Program Specialist
	Wendy Holloway, Customer Service Supervisor
	Dennis Maxwell, Operation & Maintenance Mgr.
	James Lee, Finance & Accounting Manager
	Brook Yared, Senior Engineer

PLEDGE OF ALLEGIANCE

President Bodnar opened the meeting by leading the Board and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA

It was moved by Director Putnam, seconded by Director Tejeda and carried by a 5-0 vote that the Agenda for the Regular Meeting of July 9, 2019, be adopted as presented.

PUBLIC COMMENT – None

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – No Report

CONSENT CALENDAR

It was moved by Director Erickson, seconded by Director Raghavachary and carried by a 5-0 vote to approve the Minutes of the Adjourn Regular Board meeting held on June 25, 2019 and the Special Meeting on June 25, 2019 as presented.

ACTION CALENDAR

Proposition 218 Notice – Following a closed session at the June 25, 2019 meeting, the Board decided to re-issue the Proposition 218 Notice originally mailed in April 2019. This decision was based upon comments received at the public hearing on June 11, 2019 where some residents stated that the information presented in the notice made it unclear to tenants that they had the right to protest the rate increase. Staff presented an

updated Proposition 218 Notice to the Board for discussion and review. Marilyn Tyler a customer of the District, read her comments and opinions to the Directors.

Following discussion:

It was moved by Director Putnam, seconded by Director Tejeda and carried by a 5-0 vote to approved staff to mail the Proposition 218 Notice as amended and discussed.

TTHM Study and Disinfection Process Upgrades, Project E-995 – Mr. Gould gave an update on the TTHM's and said that the levels are rising slightly due to the water temperature, and that demand has increased which means more water is coming from MWD for use. Staff is watching the water levels and the chlorine levels. Mr. Gould reported that our crews have completed the work on installing the chlorine analyzer and Apex in on site this week to work on the SCADA system. Last week staff met with Dr. Issam Najm with WQTS and are preparing the information for DDW to amend the District's permit to operate.

INFORMATION ITEMS – CV Weekly: CVWD holds off on rate increase. Glendale-News Press: Vote on Foothills area water rate hike delayed.

WRITTEN COMMUNICATIONS TO DISTRICT – Letter from American Society of Civil Engineers: An award to be presented to CVWD for the Well No. 2 project on August 2, 2019.

REPORTS OF PERSONNEL

GENERAL MANAGER- Mr. Ochoa reported that he will be preparing an informational item for the Board on what staff has accomplished as a District in the fiscal year. Also he will be providing a draft for the Strategic Plan so the Board and staff can finalize it.

Mr. Gould reported that for the month of June 2019 water production is a 50%/50% split with 104.5 MG, which is 1/9% less than 2018 and 7.8% less than the 5-year average. The FY 18/19 we projected water production of 4,200 ac-ft, but actually produced 3,725 ac-ft which is 475 ac-ft less or 11% below what was projected. We had 0.23" of rain for June 2019, and the rainfall total for the 2018/19 year is 32.03". The design for the pipeline project for the 3200 – 3300 Block of Brookhill is 90% complete. We awarded a contract to Harper and Associated Engineering, Inc. in the amount of $14,000 associated with the rehabilitation of Markridge Reservoir. Well 2 is online at 90 gpm or 8% increase in the ground water production. We received notice that CVWD did not receive the grant for the AMI. This was a nationwide grant and out of 111 applications submitted, they awarded it to the top 45. We submitted a grant for $125,000 to the Office of Emergency Services/FEMA and should hear back in a couple of months. Staff met with UtiliWorks to prepare the RFP for the AMI Communications Network.

Mr. Mitchell reported that recently staff submitted to AWCA/JPIA a request in the amount of $1,500 for a Wellness Grant and we received $1,200 for this grant.

ATTORNEY- Mr. Bunn reported that the average age of water district employees is going up and there are many who are getting ready to retire. This raises two concerns. One is how do we preserve the institutional knowledge, and two is how do you get people to replace them. Assembly Bill 1580A applies to the qualifications of veterans. This proposes the State Water Board consider whether a veteran is doing the type of work that would be considered elsewhere as experience doing water distribution and treatment and can they qualify for state certifications.

REPORTS OF COMMITTEES

Engineering Committee – Director Erickson reported that the Committee will meet on July 12, 2019 at 9:00 a.m.

Finance Committee – Director Putnam reported that the Committee had not met; however, a meeting will be scheduled as needed.

Employee Relations Committee – Director Bodnar reported that the Committee had not met; however, a meeting will be scheduled as needed.

Policy Committee – Director Raghavachary reported that the Committee had not met; however, a meeting will be scheduled as needed.

Community Relations/Water Conservation Committee – Director Tejeda reported that the Committee had not met; however, a meeting will be scheduled as needed.

Emergency Planning Committee – Director Tejeda reported that the Committee had not met; however, a meeting will be scheduled as needed.

Executive Committee – Director Bodnar reported that the Committee had not met; however, a meeting will be scheduled as needed.

DIRECTORS ORAL REPORT

Director Bodnar reported he attended a Conservation and Local Resource Committee meeting at MWD and they discussed a potential stormwater pilot program. There is a possibly of funding in the future for this pilot program. Director Bodnar will recuse himself from any decision due to his employment with MWD.

Director Raghavachary – No Report

Director Tejeda – No Report

Director Putnam – No Report

Director Erickson – No Report

CLOSED SESSION – No reportable action

ADJOURNMENT

There being no other business to come before the Board, at 8:20 p.m. it was moved by Director Putnam, seconded by Director Tejeda, and carried by a 5-0 vote that the meeting be adjourned to July 23, 2019 at 7:00 p.m.

APPROVED:

James D. Bodnar
President

Ron L. Mitchell
Secretary-Treasurer

CASH DISBURSEMENTS LIST
JUNE 2019

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
0	6/25	CalPERS	Contribution for 05/2019	24,725.56	14,777.84
0	6/25	Southern California Edison	Purchased power 05/2019	14,712.88	287.08
0	6/25	Los Angeles County Public Works	Excavation permit for 3132 Orange Avenue	535.00	
39389	6/3	Pryor Learning Solutions	Training class for Dennis Maxwell	74.25	24.75
39390	6/11	ACWA Joint Powers Ins Authority	Group health for July 2019	38,444.10	24,979.58
39391	6/11	ADS, LLC	Monthly sewer monitoring for May 2019		1,100.00
39392	6/11	Airgas National Carbonation	Well 2 Cylinder rental for carbon dioxide May 2019	55.00	
39393	6/11	Airgas USA, LLC	Monthly Cylinder rental for May 2019	225.38	225.37
39394	6/11	All American Landscape Co.	Monthly landscape maintenance office for June 2019	262.50	87.50
39395	6/11	Allen Pipeline, Inc.	E-995 - Welding services at 2 sites	1,177.60	
39396	6/11	Ameripride Uniform Services, Inc	Monthly uniform rentals for May 2019	886.71	295.57
39397	6/11	Anawalt Lumber & Materials Co.	E-995 -Misc hardware for May 2019	1,127.63	
39398	6/11	Apex Manufacturing Solutions	Disaster recovery support for SCADA	281.25	93.75
39399	6/11	ARC	Monthly MSP billing - May 2019	663.88	221.30
39400	6/11	AT&T	Voice communication for May 2019	286.69	95.56
39401	6/11	Regino Avalos	Monthly landscape maintenance for May 2019	929.37	125.63
39402	6/11	BC Laboratories, Inc	Water analysis	4,595.60	
39403	6/11	BC Laboratories, Inc	Water analysis	4,993.00	
39404	6/11	BC Laboratories, Inc	Water analysis	4,812.75	
39405	6/11	BC Laboratories, Inc	Water analysis	4,156.80	
39406	6/11	BC Laboratories, Inc	Water analysis	1,620.00	
39407	6/11	California Water Environment	Collection Sys Maint Grade 4 renewal for Dennis Maxwell	348.00	82.00
39408	6/11	CCS Interactive, Inc.	Monthly website hosting June 2019	78.75	26.25
39409	6/11	Cerdant, Inc.	Network secruity for the month of June 2019	206.25	68.75
39410	6/11	City of Glendale Water & Power	Power purchased May 2019	269.53	
39411	6/11	City of LA Bureau Sanitation	Sewerage Facilities charge Mar/Apr 2019		17,888.65
39412	6/11	Colonial Life & Accidents Ins.	Employee paid insurance May 2019	228.67	
39413	6/11	Dataprose LLC	Printing & postage for Control 1-4 for May 2019	1,429.39	1,429.39
39414	6/11	Dell Financial Services	Monthly Lease contract for May 2019	727.71	242.57

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
39415	6/11	Direct Connection	Printing business cards for 5 employees	90.55	90.54
39416	6/11	Do-it Center	Misc hardware for May 2019	747.35	111.23
39417	6/11	E&M Electric & Machinery, Inc.	SCADA Top View Support renewal through 05/31/20	19,257.00	6,419.00
39418	6/11	First Choice	Final coffee service for Plant & Office - May 2019	209.73	209.73
39419	6/11	Grainger	Miscellaneous tools	15.80	15.80
39420	6/11	Gsolutionz Professional Services	Landline support for June 2019	330.84	110.27
39421	6/11	Harrington Ind Plastics LLC	E-995 - PVC elbows and couplings	75.62	
39422	6/11	Home Depot Credit Services	E-995 - Misc supplies - May 2019	755.46	
39423	6/11	Houston & Harris PSC, Inc.	Hydro wash lift station		1,355.00
39424	6/11	Joseph A. Huerta	Mileage reimbursement Jan to May 2019	20.42	1.93
39425	6/11	ISI Winzer Corporation	Lubricant for Vactor truck nozzles		346.44
39426	6/11	J's Maintenance	Janitorial service for May 2019	793.50	264.50
39427	6/11	Lagerlof, Senecal, Gosney & Kr	PWAG legal services & ERC - Jan-Feb 2019	1,494.11	498.04
39428	6/11	Harutyun Gevorgyan & Arpiner Melikyan	Refund Check	20.54	
39429	6/11	Newegg, Inc.	Copper/fibre twinax cables for networking	281.88	93.95
39430	6/11	O'Reilly Auto Parts	Misc supplies for May 2019	19.61	95.78
39431	6/11	Office Depot - Credit Plan	Misc office supplies for May 2019	193.75	193.75
39432	6/11	Paper Cuts, Inc	Paper shredding for May 2019	2.50	2.50
39433	6/11	PMC Engineering LLC	Replacement of transducer for Well 5	3,890.38	
39434	6/11	Ramco	Mexed bobtail and crushed misc base for May 2019	1,949.44	
39435	6/11	Red Wing Shoe Store	Safety boots for Alex Sandoval	108.94	36.31
39436	6/11	Robertson's	E-995 - Slurry for vault @ Glenwood	2,980.61	
39437	6/11	Royal Industrial Solutions-Chatsworth	E-995 - 1" PVC elbows, sleeves, terminal blocks, wiring ducts	1,678.67	
39438	6/11	Sawyer Petroleum	Clear diesel	1,248.98	416.33
39439	6/11	Simpler Systems	Monthly maintenance fee for June 2019	375.00	125.00
39440	6/11	So Cal Water Utilities Assoc.	Membership renewal for James Lee	25.00	
39441	6/11	Spectrum Business	Data Communications for Well 2 - May 2019	130.48	43.50
39442	6/11	Spectrum Business	Data Communications May 2019 Mills Plant	2,181.62	727.20
39443	6/11	Spectrum Business	Data Communications May 2019 Office	2,138.69	712.90
39444	6/11	Staples Business Advantage	Misc supplies	131.12	131.12
39445	6/11	Sterling Water Technologies, LLC	Well 2 - Phosphoric acid solution	202.61	
39446	6/11	The Gas Company	Gas purchased May 2019 for Glenwood	29.50	9.83
39447	6/11	Underground Service Alert/SC	Underground notifications for May 2019	246.68	82.22
39448	6/11	Univar USA Inc	Well #2 - Caustic soda	356.97	

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
39449	6/11	UPS	Shipping charges for June 1, 2019	67.66	67.66
39450	6/11	Valvetek Utility Services, Inc	E-995 - Flushing main lines Apr, 15-19, 2019	17,930.00	
39451	6/11	Ver Sales, Inc	3 ft round sling for pipe	83.63	83.62
39452	6/11	Vision Service Plan Co-(CA)	Group vision for June 2019	278.46	185.64
39453	6/11	Vulcan Materials Company	Mixed bobtail	990.00	
39454	6/11	Water Well Redevelopers Inc	Videolog, revideolog, sonar jet cleaning for Well #1 and #7	6,550.00	
39455	6/11	Judi Woo-Sato	Remove bees from meter box at 4824 Janvier Way	150.00	
39456	6/11	CalPERS	Contribution for prefunding OPEB	40,000.00	160,000.00
39458	6/25	Southwest Hydrotech	8" altitude valve @ Ordunio Res	797.55	
39459	6/25	ADS, LLC	Sewer flow monitoring & sampling - May 2019		1,750.00
39460	6/25	Advanced Industrial Serv. Inc	E-970 - Progress payment 5 for February 2019	180,025.00	
39461	6/25	Affordable Generator Services, Inc.	Cost to service emergency generators #28,29,30,41,35	1,275.00	
39462	6/25	Affordable Generator Services, Inc.	Emergency generator rental at Main office - May 16 to June 13, 2019	922.43	307.47
39463	6/25	Aflac	Employee paid insurance June 2019	1,707.21	
39464	6/25	Allen Pipeline, Inc.	E-995 - Welding services	907.20	
39465	6/25	American Water Works, Inc	Unit #3 - Repair hydro excavator		446.55
39466	6/25	Aqua Solutions, Inc.	Well #2 - Purification kit	523.07	
39467	6/25	AT&T Mobility	Cell phone service June 2019	1,529.32	509.77
39468	6/25	Building Block Entertainment Inc	H2O Where did you go? School education classes	995.00	
39469	6/25	CA-NV Section AWWA	Training class at Santiago College	1,060.00	
39470	6/25	Cargill, Inc - Salt Division	25 Tons of solar salt	2,407.29	
39471	6/25	Certified Laboratories	Lube for Vactor and dump truck	634.69	211.56
39472	6/25	Choice Pest Control	Monthly service for Mills house & Well 9 - June 2019	96.75	13.25
39473	6/25	City of Glendale	Glendale utility tax for May 2019	36,008.08	
39474	6/25	City of Glendale	Rockhaven Well lease and water purchase for January 2019	10,822.72	
39475	6/25	City of Glendale	ULARA - fees Jan - Feb - Mar 2019	4,481.61	
39476	6/25	City of Glendale - Permits	Excavation permits	1,900.00	
39477	6/25	City of Glendale Water & Power	Power purchased June 2019	33,477.21	45.20
39478	6/25	Coastline Equipment Co.	Miscellaneous supplies	10.24	10.24
39479	6/25	Contractor Compliance & Mont Inc.	E-956 - Labor compliance services for May 2019	546.25	
39480	6/25	Cypress Ancillary Benefits	Group dental for July 2019	2,200.41	1,466.95
39481	6/25	Direct Connection	Postage for water quality report	2,237.03	
39482	6/25	Empire Fleetwash, LLC	Monthly fleet wash - 06/2019	227.25	75.75
39483	6/25	Eurofins Eaton Analytical Inc.	Water analysis	970.00	

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
39484	6/25	Expo Propane	Miscellaneous supplies	16.85	5.61
39485	6/25	Foothill Municipal Water District	Purchased water - May 2019	207,514.07	
39486	6/25	Frank Garcia	Refund Check	4.91	
39487	6/25	Goodyear Commercial Tire & Service Center	Unit #25 - 4 tires	1,557.46	519.15
39488	6/25	Grainger	Miscellaneous supplies	78.26	76.67
39489	6/25	Great America Leasing Corp.	Kyocera copier rentals June 2019	767.60	767.59
39490	6/25	Hach Company	E-995 Service chlorine analyzers	2,451.00	
39491	6/25	Harper & Associates Eng, Inc	E-970 - Warranty dive inspection and report Oak Creek 1	3,340.00	
39492	6/25	Itron, Inc	Annual subscription for Itron mobile reading device	240.00	
39493	6/25	Jensen Precast	E-995 - Precast utility vault	36,775.00	
39494	6/25	John Robinson Consulting, Inc.	M-965 - Grant consulting services for May 2019	1,200.00	
39495	6/25	Bryan Jones	Reimbursement for safety boots	110.87	36.96
39496	6/25	Samantha Karsh	Refund Check	26.33	
39497	6/25	Anahid Khachian	Refund Check	22.79	
39498	6/25	Doug Kilpatrick	Refund balance for D-18-95 meter installation	1,201.80	
39499	6/25	LA Dept Water and Power	Power purchased June 2019	53.87	
39500	6/25	Lagerlof, Senecal, Gosney & Kr	Legal services for May 2019	14,660.50	1,382.50
39501	6/25	Lagerlof, Senecal, Gosney & Kr	PWAG legal services Feb-May 2019	1,123.17	374.39
39502	6/25	LANAIRGroup-LLC-LosAngeles	Professional services for system configuration and implementation	9,000.00	
39503	6/25	Lincoln Financial Group	Life & Disability insurance for July 2019	946.55	631.04
39504	6/25	Huanjun Liu	Refund Check	18.43	
39505	6/25	Logan Supply Co. Inc	Meter box lids	158.41	158.39
39506	6/25	Mimecast North America, Inc.	Email security for June 2019	531.26	177.08
39507	6/25	Northern Safety Co., Inc	Replacement battery AED machine	150.86	50.28
39508	6/25	Plumbers Depot Inc	High pressure hose fittings for Vactor truck		913.54
39509	6/25	Pryor Learning Solutions	Fred Pryor for training classes	447.75	149.25
39510	6/25	Quinn Power Systems	Miscellaneous supplies	12.72	12.72
39511	6/25	Rassac Air Systems	A/C repair for Office	356.25	118.75
39512	6/25	Reliable Road Service, Inc.	Unit #2, replace oil, fuel and air filter and grease fittings	358.85	119.61
39513	6/25	Royal Industrial Solutions-Chatsworth	E-995 - Misc supplies - May 2019	582.10	
39514	6/25	Serge's Automotive	Oil change for Unit 6	28.85	9.62
39515	6/25	Shell	Gas purchased for May 2019	1,962.56	654.18
39516	6/25	St Water Resource Control Brd.	Renewal for Grade 4 - Kellen Boyce	105.00	
39517	6/25	Sterling Water Technologies, LLC	Well 2 - Coagulant	187.73	

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
39518	6/25	Sully-Miller Contracting Co.	Temporary asphault	805.48	
39519	6/25	Systemated Business Products	Printing meter installation cards	453.96	
39520	6/25	The Hitch Depot	Unit #36 - Trailer hitch	185.60	61.87
39521	6/25	Toro Enterprises, Inc.	E-1003 - replace 12" gate valve, install line stop 12" water	31,690.00	
39522	6/25	Toro's Lawnmower & Garden	Repairs to chop saw	95.08	95.07
39523	6/25	Tri-State Seminar	TriState Seminar training Wayne Boyce	371.25	123.75
39524	6/25	Tri-Xecutex Corp	Security alarm monitoring for July-Aug-Sept 2019	235.27	78.43
39525	6/25	Univar USA Inc	1,430 gallons of liquid bleach for Mills & Glenwood	3,345.93	
39526	6/25	UtiliWorks Consulting, LLC	AMI consulting service for April 2019	10,582.59	
39527	6/25	Valvetek Utility Services, Inc	E-995 - Flushing main lines Apr. 22-26, 2019	10,650.00	
39528	6/25	Vision Service Plan Co-(CA)	Group Vision for July 2019	278.46	185.64
39529	6/25	Wells Fargo Card Services	Gould: ACWA Conf. (hotel, meals, car rental); board dinner; training class reg. (Whittaker); tool for lateral replacements	1,677.05	457.03
39530	6/25	Wells Fargo Card Services	Hass: Monthly recurring charges; computer hardware/software	284.72	94.91
39531	6/25	Wells Fargo Card Services	Maxwell: Wash Unit 51; review course reg (Ortega); training class lunch; confined space training class refreshments	329.57	109.85
39532	6/25	Wells Fargo Card Services	Mitchell: ACWA Conf (hotel, meals, car rental; D2 review course (Montes); board dinner; frame for plaque for M. Claessens	1,381.63	471.48
39533	6/25	Wells Fargo Card Services	Ochoa: Disrict staff photo shoot; board dinner	185.49	61.82
39534	6/25	Wells Fargo Card Services	Scott: 5-year safety lunch food; community all-stars advertisement; signs for Board meetings; board dinner	1,570.74	124.73
39535	6/25	Western Water Works	Nipples, weld flanges, brass pipe, adapters, bushings, couplings, tees for stock	1,485.70	
39536	6/25	Judi Woo-Sato	Remove bees from meter box at 4618 Marellen	300.00	
39537	6/25	Wood Environment & Infrastructure	E-985 - Services through April 18, 2019	27,194.00	
39538	6/28	Christy Joana Scott	Health reimbursement	874.88	583.26
39539	6/30	Dennis A. Maxwell, Jr	Health reimbursement	37.44	24.96
39541	6/30	Nemesciano Ochoa	Health reimbursement	1,336.80	891.20
39542	6/30	Christy Joana Scott	Health reimbursement	480.00	320.00
39543	6/30	Ron Mitchell	Health reimbursement	1,044.85	696.57
			Subtotals	$ 884,516.95	$ 249,855.97
			Total Disbursements for June 2019		$ 1,134,372.92

Check#	Check Date	Payable To	Description	Water Amount	Wastewater Amount
			Payroll Report		
			Directors		$ 1,710.00
			Office Regular Payroll		$ 132,054.00
			Office OT		$ 861.00
			Plant Regular Payroll		$ 115,303.00
			Plant OT & Standby		$ 10,865.00
			Employer Payroll Taxes		$ 19,446.00
			Payroll Service Charges		$ 366.00
			Total Payroll for June 2019		**$ 280,605.00**

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Action Item No. 1

To: Honorable President and Members of the Board of Directors — July 23, 2019

From: David S. Gould. P.E. – District Engineer

Subject: **Discussion and Recertification of CVWD's Sewer System Management Plan (SSMP)**

ACTION ITEM:

Discussion and Recertification of CVWD's Sewer System Management Plan – Recertification of the 2019 updated Sewer System Management Plan (SSMP).

BACKGROUND

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order No. 2006-003 which established the General Waste Discharge Requirements (WDRs) for all publicly owned or operated sewer systems within California. The WDRs require that the owners and operators of a sewer system perform the following:

1. Report Sanitary Sewer Overflows (SSOs) to the SWRCB.
2. Develop and implement a Sewer System Management Plan (SSMP), which is a written document detailing how the District's sewer system is operated, inspected, maintained, repaired, and funded.
3. Submit a completed Sewer System Management Plan for approval and certified by the governing agency by August 2, 2009.

- 2009 - Staff completed CVWD's SSMP and the plan was approved by the CVWD Board of Directors. This requirement was put into place to ensure that the governing board is aware of the SSMP program and the potential impacts to the District, such as budget needs and updating CVWD's Rules & Regulations.
- 2012 - Staff performed an internal audit and updated the SSMP. Appendices pertaining to existing wastewater conveyance and treatment agreements between CVWD and the City of La Canada-Flintridge and the City of Glendale were removed and included as reference. A summary of these changes can be found in the attached 2019 revisions summary.
- 2013 - In 2008, SWRCB released draft changes to the monitoring and reporting requirements of the WDRs. After implementation of the original WDRs, SWRCB found that there were inconsistencies in the original order, and the current system resulted in far too many SSOs being reported to the California Office of Emergency Service (COES). Water quality sampling information was added to the emergency response plan as well as information on how to develop a technical report for submittal to SWRCB after a large volume spill, larger than 50,000 gallons. These draft changes took effect in 2013 as part of an update to the Monitoring and Reporting Program for the WDR.
- 2014 - Staff updated the SSMP to reflect changes to the WDR made in 2013. The 2014 SSMP was re-certified and approved by the Board on July 15, 2014. Also, in 2014, the SWRCB has released enforcement criteria for the WDR, but this required no major changes to the SSMP. A summary of these changes can be found in the attached 2019 revisions summary.
- 2016 - Staff performed an internal audit SSMP in November of 2016 with slight adjustments to our inspection schedule. Staff also made updates to maps, organizational charts, and the design manual to better reflect the procedures occurring in the field. A summary of these changes can be found in the attached 2019 revisions summary.

DISCUSSION:

Since the audit in 2016, there have been no sewer spill overflows or substantive changes to the WDR by SCWRB. In the past five (5) years there has only been one sewer spill overflow event, which was associated with the malfunction of a private grease interceptor. The spill occurred in September 2016 and after staff completed the reporting for this spill it was determined that the emergency response protocol in the SSMP was up-to-date and sufficient.

Since last recertifying the SSMP in 2014, CVWD has purchased a new Vactor truck (2017) for cleaning operations and began employing a new alternative treatment method for root removal. In 2018/19, staff has also performed maintenance on both lift station pumps and cleaned the lift station force main. Otherwise, maintenance and inspection were performed as described in the SSMP.

In 2019, Staff reviewed the SSMP and updated Sections 4, 5, 6 and 8 to better represent CVWD's office and field practices. A summary of these changes can be found in the attached Revisions Summary, which will be incorporated into the SSMP as appendix 10-A. For CVWD to stay in compliance with the WDR, re-certification of the SSMP must be approved by the Board of Directors prior to August 2, 2019.

The Engineering Committee met on Friday, July 12, 2019 to discuss the SSMP updates. The Committee was provided additional time to review the document in order to develop further recommendations. After these changes are incorporated, the SSMP will require a review by legal counsel to ensure that all legal requirements of the law are met by the SSMP.

SUMMARY

After SSMP audits in 2016 and 2019, the SSMP was provided to the Engineering Committee on July 12, 2019 for review. It is staff's recommendation that the Board of Director's approve CVWD's Sewer System Management Plan after the revisions provided by the Engineering Committee and any comments CVWD's legal counsel provides have been implemented.

Prepared by:

Brook Yared, P.E.
Senior Engineer

Submitted by:

David S. Gould, P.E.
District Engineer

Attachments: 2019 Summary of Changes

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Crescenta Valley Water District's
SSMP AUDIT - 2012

Once every two years CVWD reviews the effectiveness of the Sewer System Management Plan (SSMP) that is currently in place to access its effectiveness. During this review, updates and changes were made to update and strengthen the document to improve the District's wastewater service and overall spill response performance.

Since the inception of the SSMP, the District has lined approximately 3,800 linear feet of sewer main, lined three (3) manholes, and performed five (5) sewer main spot repairs. In FY 12/13, CVWD plans spot repair of the District's enhanced maintenance areas. As funds become available the District will continue to focus on repairing more mains that are listed as enhanced maintenance areas.

Overall, staff response to emergency events was excellent. Once the District is informed of a spill crews arrive on scene in approximately 15 minutes. More work is being done to notify residents and neighboring agencies of the District's response program. During the Response to a lift station overflow that occurred in the 2012, it was found that more SSMPs and map books needed to be distributed to staff.

The District has maintained an annual lining and maintenance program to fix deficiencies as they are discovered through regular inspection. The Enhanced maintenance area list has been updated and included here. No new monitors have been added to District facilities as of now. Plans to add monitoring equipment and software are included in the annual budget.

The current schedule for cleaning and inspection outlined in the SSMP is adequate. However, due to work place injuries, the sewer crew has recently been short staffed. Once these incidents have been resolved, the sewer crew should be back to full operation, and the schedule for cleaning and inspection returned to normal.

Revision 1: Summary of Changes - 2012

Organization – Titles and contact information were updated for the Wastewater Crew Supervisor and the Senior Engineer. Responsibilities have remained the same since the SSMP's inception.

Legal Authority – The City of Los Angeles and City of La Canada treatment agreements were removed from the appendices. The documents were too lengthy to be included in every SSMP distributed. These agreements can be found in the Engineering Department as well as at the Glenwood Operations Facility.

Operations & Maintenance – All sewer map books were updated and distributed. Cleaning and inspection maps showing current progress by year are located at the Wastewater Supervisors office. The sewer main cleaning and inspection program schedule was changed from once every two years to once every three years. The Enhanced Maintenance Area list was updated.

Design and Construction – Updated design manual in 5-A.

Emergency Response – Since the inception of the SSMP, CVWD has responded to a variety of emergencies. Mudslides after the Station Fire lead to an SSO in 2010 and a lift station failure caused an SSO in 2012. Prevailing wage rate requirements for hiring emergency contractors were added. Staff believes that response to these events was adequate. The emergency response action plans (Appendix 6-C) were updated to reflect better response practices as well as to include response for grease interceptor overflows at food service establishments. Program monitoring information can be found in Appendix 9-A.

Fats, Oils, and Grease (FOG) – See appendix 9-A for the number of FOG related Sewer Spills.

System Evaluation and Capacity Management – While defect coding for CCTV inspection has been implemented, no comprehensive condition and criticality analysis has been performed to date.

Monitoring, Measurement, & Program Modifications – Attached find the updated SSO Spill Ssummary, Appendix 9-A. This appendix also outlines cleaning and inspection total footage for cleaning and inspection for each year.

Crescenta Valley Water District's
SSMP AUDIT - 2014

Once every two years CVWD reviews the effectiveness of the Sewer System Management Plan (SSMP) that is currently in place to access its effectiveness. During this review updates and changes are made to update and strengthen the document in hopes of improving the District's wastewater service and overall spill response performance.

Changes to the State of California's Waste Discharge Requirements (WDR) mandated that water quality sampling and large volume spill reporting guidelines be included in the SSMP. Furthermore, the notification rules for reporting SSO's were changed. All documents within the SSMP have been updated to reflect the regulations in the amended WDR.

Overall, staff response to emergency events remained the same. Once the District is informed of a spill crews arrive on scene in approximately 15 minutes. There were two (2) sewer spill overflows occurring in the system since the last update. The first took place at the intersection of Briggs Ave. and Ocean View Blvd. on February 27, 2014. The second spill took place at 2720 Timberlake Ave. on March 17, 2014. These spills cumulatively resulted in approximately 1950 gallons of wastewater being discharged. Staff responded adequately and had each blockage cleared in less than 40 minutes. Reporting to CIWQS and all other applicable agencies were carried out according to the new Waste Discharge Requirements implemented in September 2013. In each of these incidents, a blue plaster, thought to be a result illegal dumping after refinishing a pool surface, was found to be the cause of the blockage in the line. Staff reviewed Building and Safety permits from the County of Los Angeles in an attempt to determine the source of the plaster. This investigation is still ongoing.

In 2013, CVWD staff cleaned approximately thirty-four (34) miles of sewer main and inspected approximately three (3) miles of main using CVWD's CCTV inspection truck. This includes the cleaning the entire District's enhanced maintenance areas. Otherwise, since 2012, two ring and cover maintenance projects were carried out. CVWD staff also treated over 130 manholes to prevent insects and vermin from establishing themselves in manholes and becoming a public nuisance.

In 2014, upgrades to the telemetry system for the sewer flow monitoring station and diverter valve were updated. In FY 14/15, CVWD plans to line approximately 2,000 linear feet of pipe and perform various spot repairs. As funds become available the District will continue to focus on repairing more mains that are listed as enhanced maintenance areas.

Revision 2: Summary of Changes - 2014

Organization – A new wastewater crew member was added to the organizational chart. Contact information for the new crew member was added as well.

Operations & Maintenance – All sewer map books were updated and distributed. The Enhanced Maintenance Area list was updated.

Emergency Response – Changes to the new Waste Discharge Notification Requirements were included in the SSMP. The three (3) category reporting structure shifted to a four (4) category reporting structure. All emergency contact information was updated. Program monitoring information can be found in Appendix 9-A. Criteria for handling large spills were added as well as information on water quality analysis.

System Evaluation and Capacity Management – Appendix 8-A was added containing the Capital Improvement Program budget for FY15/16 and the five (5) year budget projection.

Monitoring, Measurement, & Program Modifications – Attached find the updated SSO Spill summary, Appendix 9-A. This appendix also outlines cleaning and inspection total footage of cleaning and inspection for each year.

Crescenta Valley Water District's
SSMP AUDIT - 2016

In 2016, staff experienced one sewer system overflow. It was a private lateral spill associated with a grease interceptor located on the 2600 block of Foothill Blvd. The spill was small and contained within the parking lot. Response to the spill was under 20 minutes, and staff assisted the property manager with response activities.

Staff performed night time work to clean and inspect CVWDs Interceptor Main. The main was found to be in good condition. Staff successfully completed the cleaning of 35 miles of sewer main in 2016 and 25 miles of sewer main in 2015, and the inspection of 20 miles of sewer main in 2016 and 5 miles of sewer main in 2015.

Revision 3: Summary of Changes - 2016

Organization – Contact information for the new General Manager was added. The organizational chart was updated to include the new General Manager as well as reflect several internal personnel shifts.

Operations & Maintenance – All sewer map books were updated and redistributed. The Enhanced Maintenance Area list was reviewed and found to be sufficient. Adjusted inspection schedule to better reflect CVWD's practices.

Design and Performance Provisions – Updated Insurance Requirements to reflect new practices.

Emergency Response – All emergency contact information was updated. Program monitoring information can be found in Appendix 9-A.

System Evaluation and Capacity Management – The section was updated to remove references to CVWD's 5 year capital projects outlay. CVWD has seen a consistent reduction in wastewater flows over the years. No capacity improvements are recommended as this trend continues.

Monitoring, Measurement, & Program Modifications – Attached find the updated SSO Spill Summary, Appendix 9-A. This appendix also outlines cleaning and inspection total footage of cleaning and inspection for each year.

Crescenta Valley Water District's
SSMP AUDIT - 2019

There have been no Sewer Spill Overflows at CVWD since September of 2016. Since the 2016 audit, CVWD began employing herbicidal root foam to several areas with root intrusion in 2018. CVWD also purchased a new Vactor truck for cleaning operations to reduce maintenances costs. This removes the requirement for Class B license training for Wastewater personnel.

Staff performed night time work to clean and inspect CVWDs Interceptor Main in 2019. The main was found to be in good condition with minor to moderate root intrusion in several joints. Staff completed root foaming of the area in June of 2019. There have been no ring and cover maintenance projects, sewer lining or manhole vector spraying projects since 2015. Staff successfully completed the cleaning of 15 miles of sewer main in 2017 and 21 miles of sewer main in 2018 and the inspection of 5 miles of sewer main in 2017 and 15 miles of sewer main in 2018.

Revision 3: Summary of Changes - 2019

Organization – Contact information for the new General Manager was added. The organizational chart was updated to include the new General Manager as well as reflect several internal personnel shifts.

Operations & Maintenance – All sewer map books were updated and redistributed. The Enhanced Maintenance Area list was reviewed and found to be sufficient. Added herbicidal root foaming to alternative cleaning methods.

Design and Performance Provisions – Updated Insurance Requirements to reflect new practices. Removed Prevailing Wage requirement from D-jobs section.

Emergency Response – Staff training was updated to reflect the new Vactor Truck. All emergency contact information was updated. Program monitoring information can be found in Appendix 9-A.

System Evaluation and Capacity Management – CVWD has seen a consistent reduction in wastewater flows over the years. No capacity improvements are recommended as this trend continues.

Monitoring, Measurement, & Program Modifications – Attached find the updated SSO Spill Summary, Appendix 9-A. This appendix also outlines cleaning and inspection total footage of cleaning and inspection for each year.

SSMP Audit Revision Summary

Approval Deadline	Revision	Comments
August 2, 2009	SSMP – Adopted by Board of Directors	Adopted – 7/21/2009
August 2, 2011	Section 4: Operations and Maintenance	Maps Updated and Redistributed – 7/29/2011
August 2, 2012	Section 2: Organization Section 3: Legal Authority Section 4: Operations and Maintenance Section 6: Emergency Response Appendix 2-A: Organizational Charts Appendix 5-A: Design and Construction Manual Appendix 6-C: Emergency Response Action Plans Appendix 9-A: SSO summary Appendix 10-A: Audit Summary	Updated 7/15/2012
August 2, 2014	Section 2: Organization Section 4: Operations and Maintenance Section 6: Emergency Response Appendix 2-A & 2-B: Organizational Charts Appendix 9-A: SSO summary Appendix 10-A: Audit Summary	Proposed – 7/18/2014
August 2, 2016	Section 2: Organization Section 4: Operations and Maintenance Section 6: Emergency Response Appendix 2-A & 2-B: Organizational Charts Appendix 9-A: SSO summary Appendix 10-A: Audit Summary	Updated – 12/7/2016
August 2, 201**9**	Section 2: Organization Section 4: Operations and Maintenance Section 5: Design and Performance Revisions	Updated – 7/3/2019

	Section 6: Emergency Response Section 8: System Evaluation and Capacity Management Appendix 2-A & 2-B: Organizational Charts Appendix 9-A: SSO summary Appendix 10-A: Audit Summary	Updated – 7/3/2019

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Action Item No. 2

To: Honorable President and Members of the Board of Directors — July 23, 2019

From: David S. Gould, P.E. – District Engineer

Subject: **Water Hydraulic Model and Geographical Information System (GIS) Update**

ACTION ITEM:

Water Hydraulic Model and GIS Update, Project E-1007: Award a contract to Akel Engineering to provide professional consulting services to update CVWD's water hydraulic model and associated information for CVWD's geographical information system (GIS) update at a cost of $55,263 and establish a contingency amount of $5,530 (10% of contract) to cover the cost of additional work.

BACKGROUND:

An up-to-date hydraulic model is the backbone of a number of water and wastewater master plans and studies. This information will be utilized in CVWD's urban water management plan, asset management plan and future water & wastewater master plan. A robust and up-to-date hydraulic model is also a valuable tool that can be integrated into the daily operations, giving staff the ability to perform virtual fire flow testing, analysis of booster pumps for possible power cost savings, water quality and surge analysis, and asset management.

CVWD had contracted with IDModeling (IDM) to establish our hydraulic model while doing the last water master plan in 2007. Since then CVWD has installed approximately five (5) miles of new water main, replaced various valves and added additional water services for developer projects. The new pipes, valves, meters, etc… associated with these capital improvements have not been included in the current hydraulic model.

It was the Engineering Department's original intention to update the water system infrastructure layers of GIS in house as time permitted. However, the number of developer projects and O & M projects has increased over the past few years and has not allowed staff to fully concentrate on the detailed work necessary to update the GIS that supports the hydraulic model. In order to update the hydraulic model in house, staff would require a new software platform, called "InfoWater", which could be cost prohibitive to purchase since the licensing quotes being provided are well over $10,000 annually per seat.

DISCUSSION:

Staff met with Dr. Tony Akel from Akel Engineering, Inc. (Akel) and Paul Hauffen from Sedaru, Inc., formerly IDM. Both companies provide support services for the GIS updates and possess the software licenses necessary to update and calibrate CVWD's hydraulic model. After discussing the scope of work with both companies in May and June of 2019, they provided proposals. The following is a summary of the submitted proposals:

	Professional Service Provider	**Total Proposal Amount**
Low	Akel Engineering Group, Inc.	$55,263
2nd	Sedaru, Inc. – Proposal 1 (Update Only)	$63,000
3rd	Sedaru, Inc. – Proposal 2 (Update and Sedaru Asset Management Phase 1 implementation)	$80,000

There are several differences between the companies shown above. Sedaru (formerly IDM) has a larger modeling staff with several clients in our area. They also have the advantage of having worked directly with our GIS database in the past.

Sedaru, Inc. has developed propriety software for asset management, called Sedaru. Their proposal offers an option for "Phase one" of that software platform's implementation. Sedaru did a demonstration of the software at the Glenwood Operations Facility on June 27, 2019. Staff was impressed with the presentation, but there were several drawbacks. First, there is an annual licensing fee for the platform of $2,400 per seat, which is expensive relative to a standard ESRI licensing package. Second, the software only runs on Apple operating systems, which would severely limit staffs hardware options for tablets and phones used in the field.

Akel Engineering (Akel) is a smaller organization with a smaller project workload. After reaching out to their provided references, it appears that they have strong project experience, which has yielded very positive results. They were recommended by the InfoWater software distributor as one of the better firms performing GIS and hydraulic modeling update work within the area.

RECOMMENDATION:

It is staff's recommendation to award a contract to Akel Engineering Group, Inc. for $55,263 and establish a contingency amount of $5,530 (10% of contract) to cover the cost of additional work. There is funding available in the FY 19/20 Administrative Consultants budget for these services.

Account Description	Amount
Amount remaining in Administrative Consultants	$75,000*
Hydraulic Modeling Contract Award	<$55,263>
Contingency (Unforeseen or additional work	<$5,530>
Total Amount Requested	**<$60,793>**
Amount Remaining in Administrative Consultants	**$14,207**

*Tentative budget for Administrative Consultants as discussed in the Engineering Committee Meeting held on July 12, 2019.

Prepared by:

Brook Yared, P.E.
Senior Engineer

Submitted by:

David S. Gould, P.E.
District Engineer

Attachment:

1. Sedaru proposal dated June 27, 2019
2. Akel Engineering Group proposal dated June 17,2019

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AKEL
ENGINEERING GROUP, INC.

June 17, 2019

Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214

Attention: Brook Yared, MS, PE
Senior Engineer

Subject: Proposal for the Water System GIS and Hydraulic Model Update and Water Model Calibration

Dear Brook,

Akel Engineering Group (Akel) is pleased to submit this proposal for consulting services to update the Water System GIS and to update and calibrate the hydraulic model.

Background

The Crescenta Valley Water District (CVWD) currently services potable water to approximately 8,000 accounts representing a population of 32,000 in a four square mile area located in the San Gabriel Mountain foothills of Los Angeles County. CVWD last updated their water master plan in 2004, and developed and calibrated a hydraulic model at that time. The model was based in Innovyze's H2ONet, and was calibrated for steady state and extended period simulations.

As part of CVWD staff efforts to modernize the hydraulic model, they have begun the process of updating their GIS. This includes the in-progress effort to locate, map, and catalog the water meters, with the ultimate goal of migrating to an Advanced Meter Infrastructure system. Accordingly, CVWD has requested a scope of work and fee estimate to complete the GIS and hydraulic model update and model calibration. The model will be updated and calibrated in Innovyze's InfoWater modeling software.

Scope of Work

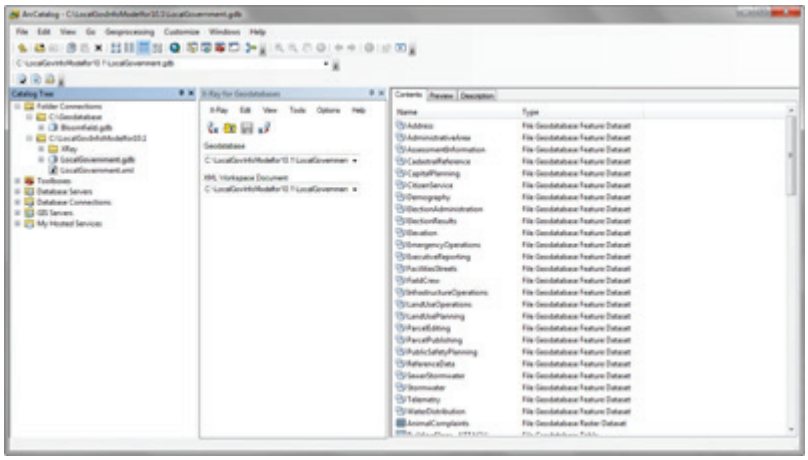
Task 1. Water System GIS Update

Task 1.1 GIS Geometry Review and Update. This task consists of a thorough review of the water system GIS geometry. It is assumed that CVWD will provide any available

improvement plans, which shall be reviewed and compared for accuracy with the current spatial data. Special attention shall be paid to pipe distance from road centerlines or parcel lines, as well as any high precision coordinate locations that have been placed on the plans.

Task 1.2 GIS Attribute Review and Update. This task will include the population of missing attribute information found on CVWD's water infrastructure improvement plans, where available. A review with CVWD of the GIS data will be performed to determine which attribute are most critical for populating into the database. Attributes such as size, material, installation date, and other data attributes considered a priority to CVWD will be reviewed for accuracy and populated where necessary.

Task 2. GIS Conversion



Task 2.1 Conversion to LGIM and Data Quality Review. This task will include converting the newly updated water system GIS datasets into a Local Government Information Model and reviewing the data for completeness and quality assurances. A data quality analysis shall be performed using tools and methodologies recommend by Esri. After a review period, the necessary updates or edits to the water system datasets will be performed.

Task 2.2 GIS Conversion. This task is consists of redeveloping the hydraulic model for consistency with the GIS developed as part of Task 2. This includes importing the GIS into Innovyze's InfoWater platform, which is a GIS-based hydraulic modeling software.

Task 3. Hydraulic Model Update

Task 3.1 Water System Control Settings. This task consists of updating the hydraulic model pump station, PRV, tank, and well elements to

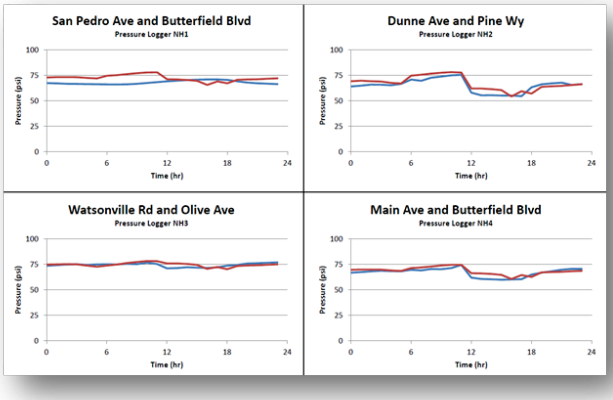
account for the physical SCADA controls. These controls may include pressures, flows, tank levels, or other physical controls used for operating the water system.

Task 3.2 Water System Demand Allocation. This task consists of evaluating the billing records for CVWD and allocating flows using one of several available methodologies, and which may include: Geo-Coding, APN matching, Meter XY Coordinates, or other.

Task 3.3 Diurnal Pattern Development. This task consists of developing pressure zone specific diurnal demand patterns. This will be based on the system SCADA for pumping and tank level fluctuations, and correlated to the demands from the billing records.

Task 4. Hydraulic Model Calibration

Task 4.1 Calibration Plan. This task consists of providing CVWD with a plan for calibrating the hydraulic model, including both SCADA points and proposed telelogger locations. This task assumes that CVWD will procure and install the teleloggers, and AEG will provide preferred locations. This task will include a review of daily production records in order to determine peak use periods throughout the year.



Task 4.2 Hydraulic Model Calibration. This task consists of calibrating the hydraulic model to the SCADA and telelogger information gathered as part of Task 3.3. Calibration graphs will be submitted to CVWD staff for review and approval.

Task 5. Hydraulic Model Training

This task consists of a one day training workshop intended to teach an introductory level course on hydraulic modeling. The first half of the day will consist of learning the general layout of the model, the basics of model elements, and how to run the model scenarios. The second half of the day will consist of utilizing the CVWD model to learn the process on the CVWD InfoWater model. This will include fire flow analysis, water trace, and tank evaluations.

Task 6. Project Management and Coordination.

Task 6.1 Project Management. This task consists of general project coordination and oversight, including keeping CVWD apprised of project status updates. This task includes monthly progress reports, scheduling and invoicing.

Task 6.2 Workshops and Meetings.

Task 6.2.1 Kickoff Meeting. This task consists of preparing for and conducting a kickoff meeting. This includes documenting meeting minutes, and submitting draft and final minutes for staff review. The consultant will recommend staff for attendance and provide Project Team handouts to facilitate discussions.

Task 6.2.2 Progress Meetings. This task consists of coordinating and scheduling monthly progress meetings to document key decisions and milestones throughout the process.

Task 6.2.3 Workshops and Focused Meetings. This task includes holding meetings in as needed webconferences and a workshop to present the results of the GIS build and hydraulic model calibration results.

Water System GIS and Hydraulic Model Update and Water Model Claibration

Cost Proposal

(June 17, 2019)

Task No.	Task Description	Hours							Costs			
		Principal	Senior Engineer	Engineering Associate	Engineering Assistant	GIS Analyst	Secretarial	Total Hours	Labor Costs	Other	Desc.	Total Cost
		$194	$176	$157	$118	$107	$80					
Task 1	**Water System GIS Update**											
Task 1.1	GIS Geometry Review and Update	2	5			40		47	$5,548			$5,548
Task 1.2	GIS Attribute Review and Update	1	3	8		100		112	$12,678			$12,678
	Subtotal	3	8	8	0	140	0	159	$18,226			**$18,226**
Task 2	**GIS Conversion**											
Task 2.1	Conversion to LGIM and Data Quality Review	1	3			35		39	$4,467			$4,467
Task 2.2	GIS Model Conversion and QA/QC		2	4		8		14	$1,836			$1,836
	Subtotal	1	5	4	0	43	0	53	$6,303			**$6,303**
Task 3	**Hydraulic Model Update**											
Task 3.1	Water System Control Settings	1	2	8	4			15	$2,274			$2,274
Task 3.2	Water System Demand Allocation	2	6	20	15	12		55	$7,638			$7,638
Task 3.3	Diurnal Pattern Development	1	3	12	8			24	$3,550			$3,550
	Subtotal	4	11	40	27	12	0	94	$13,462			**$13,462**
Task 4	**Hydraulic Model Calibration**											
Task 4.1	Calibration Plan	1	2	6		4		13	$1,916			$1,916
Task 4.2	Hydraulic Model Calibration	3	8	12	20	12		55	$7,518			$7,518
	Subtotal	4	10	18	20	16	0	68	$9,434			**$9,434**
Task 5	**Hydraulic Model Training**	6	12					18	$3,276			**$3,276**
Task 6	**Project Management and Coordination**											
Task 6.1	Project Management and Coordination	4	8					12	$2,184			$2,184
Task 6.2	Workshops and Meetings	5	8					13	$2,378			$2,378
	Subtotal	9	16	0	0	0	0	25	$4,562			**$4,562**
	Total	**27**	**62**	**70**	**47**	**211**	**0**	**417**	**$55,263**	**$0**	**$0**	**$55,263**

AKEL
ENGINEERING GROUP, INC.

Notes:
1. Per conversation with CVWD Staff on 6/17/2019, the parcel database has been cleaned and updated, and requires no further review.
2. This task assumes approximately 5 miles of new pipelines added at approximately 425 as-builts.

June 27, 2019

Brook Yared
Senior Engineer
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214

Subject: Proposal for a Water Model Update and Calibration

Dear Mr. Yared:

Sedaru is pleased to submit this proposal to update & calibrate the water system model (the Project) for the Crescenta Valley Water District (CVWD or District).

Project Understanding: Sedaru will deliver on all aspects of this Project, including the below:

1. Updating the District-provided water GIS, utilizing as-builts for an estimated 5 miles of pipeline.
2. Utilizing the updated GIS to import GIS-based line work and associated attributes into the District's current hydraulic model software.
3. Hydraulic updates to the District's water model, including and not limited to: water demands, elevations where needed, PRV settings, pump initial status' boundary conditions, etc.
4. Apply existing, District-provided hydrant tests to develop a Steady State model calibration.
5. Deliver hydraulic model files in H2ONET and InfoWater native file formats.
6. Deliver the calibrated hydraulic Model in the Sedaru Modeling application for ongoing, internal what-if simulations, including fire flows, pipeline sizing, pump offline and more, scenarios.
7. Delivery of a 4-hour training with H2ONET, in addition to a 2-hour training utilizing Sedaru Modeling.

Special Considerations: The special considerations below reflect our understanding of CVWD's internal state of modeling software and experience. This understanding will help drive an approach that produces meaningful deliverables for the District.

- The District currently uses the AutoCAD-based hydraulic modeling software H2ONET, and does not anticipate upgrading until fiscal year 2020-21. Future modeling software upgrades may consider the GIS-based modeling software InfoWater.
- District's current in-house modeling experience is beginner level, with expectations to run internal fire flows, understand impacts of pipe closures, and pumps out-of-service.
- The District's last water master plan was completed in 2007, with Civiltec as the Prime Consultant and Sedaru (then, IDModeling Inc.) as the hydraulic model subconsultant.

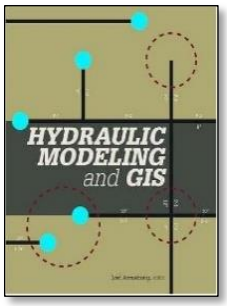
Familiarity, Locality, and Project Experience: The Sedaru team is familiar with the District's water model, water system hydraulics, internal team expectations, and requirements of this Project. Based in San Dimas-CA (approximately 40 minutes from the District), Sedaru has completed similar projects for local utilities including Rubio Canon Land & Water Association, Burbank Water & Power, Santa Clarita Valley Water Agency (formerly Castaic Lake Water Agency), City of Pomona, Azusa Light & Water, Los Angeles Department of Water & Power, and many more.

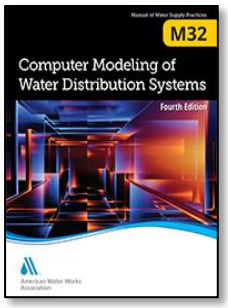
Budget Options: Sedaru proposes 2 budget options for the District's consideration, as summarized below. We have included the scope of work for the Hydraulic Model Project as **Exhibit A**.

1. **$63,000 Option 1:** Hydraulic Model Project, Stand Alone:
    a. $63,000 including 1 user license of the Sedaru Modeling app @$2,400/year
    b. Includes onsite training with documentation
2. **$80,000 Option 2:** Hydraulic Model Project + Sedaru Asset Management Software Phase 1
    a. $56,900 for Hydraulic Modeling Project, including Sedaru Modeling app @$2,400/year
    b. Includes onsite training with documentation
    c. $23,100 for Sedaru Asset Management Software Phase 1, including:
        i. 6 field data collection forms for water distribution* = $7,200 (one-time cost)
            a. 3 hydrant field data collection forms
            b. 3 valve field data collection forms, including Wachs Controller
            c. **forms can be any combination vs. the above suggested.*
        ii. GIS related support and configuration = $2,250 (one-time)
        iii. Onsite training, documentation & support to ensure usage = $2,250 (one-time)
        iv. Licensing for up to 6 named users = $9,000/year
        v. Licensing for one Wachs Valve Turning Machine integration = $2,400/year

Payment Terms: Sedaru software is billed upon authorization. Services are billed 50% upfront for initialization and mobilization at contract authorization. Subsequent payment terms for services are 25% and 25% at substantial completion of agreed-upon milestones.

GIS + Hydraulic Modeling Experts: The Sedaru team has decades of experience in GIS, utility information systems, data set integrations, and hydraulic modeling applications to provide a professional engineer's perspective to asset and operational management Projects. Sedaru co-authored Esri's Hydraulic Modeling and GIS Handbook and was a leading contributor to the AWWA's M32, Manual of Practice for Water Distribution Systems Modeling. We work with hydraulic modeling software every day, bringing a deep technical understanding of each platform. Our proposed Project Team's experience is included as **Exhibit B**.





Thank you for inviting Sedaru to this opportunity. We look forward to visiting with your team to implement our experience and collaborate with yours, to successfully complete your GIS, hydraulic model update and calibration, while supporting CVWD's broader asset management initiatives.

Please contact me at 626-244-0700 or paulhauffen@sedaru.com with any questions.

Sincerely,

Paul Hauffen,
CVWD Client Service Manager
Phone: (626) 354-7003
Email: paulhauffen@sedaru.com

Exhibit A: Hydraulic Model Project

Implementation Task	Budget
IMPLEMENTATION DETAILS	
Task 1: Water GIS Updates *Includes a Discovery Meeting and Preparation, including a walk through of the District's GIS Environment and requirements gathering/sharing. The Sedaru team will review the as-built drawings to update approximately 5 miles of pipe in the District's water system GIS. The Sedaru team will also review each as-built sheet to populate GIS features with attribute information found on the District's water infrastructure improvement plans. Priority will be given to critical attributes ensuring they are as complete as reasonably possible with the information provided in the associated improvement plans.*	$6,000
Task 2: GIS Conversion *Once Task 1 is complete, Sedaru will QA/QC the GIS updates focusing on connectivity and asset attribution. After District acceptance, the updates will be converted/imported into the hydraulic model.*	$7,000
Task 3: Hydraulic Model Update *Following acceptance of GIS updates from Tasks 1 & 2, the water system hydraulic model will be updated in the key areas as identified during the GIS update. This update process includes keeping relevant existing model information and updating key model components based on a review of the existing model and updated GIS. This also includes any hydraulic changes since the last model update such as: pressure zone boundary valves, PRV settings, facility status, etc. Demands for the newly added pipes will be estimated based on existing production data and allocated to the updated pipes and overall demands scaled to match existing production data.*	$20,000
Task 4: Hydraulic Model Calibration *Using the updated hydraulic model, historical fire hydrant flow and pressure data will be used to calibrate the model under steady-state conditions against available District SCADA information. Up to 3 hydrant locations per zone will be used for calibration. An overall calibration plan will be developed to outline the process, data available, and calibration goals. Calibration results will be summarized in a technical memorandum.*	$24,600
Task 5: Sedaru Modeling App *Predict system response for fire flows, pipeline sizing, pump operations, changes in water demand, and more.*	$2,400
Task 6: Staff Training *Delivery of the model in the District's preferred modeling platform (assumes InfoWater or H2ONet) as well as Sedaru Modeling. The Sedaru team will conduct a 1-day training for District staff with a focus on using the updated hydraulic model in both the preferred modeling platform as well as Sedaru Modeling.*	$3,000
SUBTOTAL	***$63,000***
TOTAL SERVICES	**$63,000**

Exhibit B: Sedaru Team Resumes

Paul Hauffen

Client Service Manager & Technical Advisor

Experience: 25 Years

2004-Present
Sedaru

2003-2004
Kennedy/Jenks

1999-2002
MWH Soft (Innovyze)

Key Skills:

- ✓ Utility Management Systems
- ✓ Operations Management
- ✓ Network Intelligence
- ✓ Decision Support Systems
- ✓ Network Modeling
- ✓ Enterprise Integrations
- ✓ Capital Improvement
- ✓ Water Loss
- ✓ Resource Management

Education & Certificates:

Bachelor of Science Civil Engineering
Loyola Marymount University

Highlighted Project Experience

LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) – CA
Hydraulic Modeling Project for 29 Zone Models
Technical Advisor

As sub-consultant to Arcadis, Sedaru is supporting LADWP with the water model construction, steady-state and extended period simulation calibrations, documentation and training for 29 zone models which represent 29 distinct pressure zones. The project involves data collection, model development from LADWP GIS and best available data, and calibration using pressure survey, SCADA data, and staff institutional knowledge and experience. This is a multi-year project, with 5-8 models being built per year.

CITY OF POMONA – CA
Dynamic Asset Management & Field Data Collection
Client Service Manager

Sedaru is deployed at the City of Pomona, supporting dynamic asset management and field data collection. The City is using Sedaru to manage hydrants, valves, meters, water production, and water treatment assets. In addition, sewer main maintenance and manhole inspections are managed in Sedaru. Sedaru is also working with the City to develop and update the City's Utility Strategic Plan in Sedaru CIP. This plan acts as a dynamic master plan, helping to prioritize asset maintenance and replacement.

CITY OF VICTORVILLE – CA
Digital Transformation & CMMS Implementation
Client Service Manager & Technical Advisor

Sedaru built the City's new water GIS, deployed Sedaru CMMS, integrated Sedaru with the City's ArcGIS Server, and completed a real-time, bi-directional integration with the City's CIS (Tyler Munis). The City now uses Sedaru with their new GIS and hydraulic model to

monitor and complete work specific to water production, distribution, and work management for their water & sewer system.

Additional Project Experience

EAST BAY MUNICIPAL UTILITIES DISTRICT (EBMUD) – CA

Sedaru Outage and Work Order Management Integration w/Field Data Collection
Client Service Manager and Technical Advisor

EBMUD requires improved response to leaks and breaks, utilizing existing tools with new technology. Sedaru Smart Outage, Command Center and Field Mobility was selected to deploy as a complete event response system (leaks, breaks, valve exercising, etc.), leveraging existing EBMUD tools, data and institutional knowledge. EBMUD's deployment also includes Wachs valve turning machine and work order management functionality.

LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) – CA

Water Loss Management with Sedaru
Client Service Manager and Technical Advisor

Deployed Sedaru Outage to support LADWP leak/break response & planning. Sedaru Outage immediately identifies valves to close, customers affected, calculates water loss, and automates water loss reporting, and allows field crews and customer service to respond within the same event, concurrently, in real-time. Also used the Sedaru Outage algorithm to develop a response plan for any outage area identified for a leak or break.

CITY OF BENICIA – CA

Utility Management system for water and public works
Technical Advisor

City of Benicia delivers water service to over 28,000 residents. Sedaru was implemented to consolidate information into a single mobile computerized maintenance management system (CMMS). Sedaru integrates and displays data from the City's water distribution, sewer collection and streets divisions. Field team use Sedaru for enhanced data access and mobile work management. Sedaru provides the City a platform for asset and network management, delivering real-time, mobile work management and network intelligence for water pipes, water quality, hydrants, valves, customer meters, pumps and tanks; sewer gravity mains, force mains, manholes, lift stations and wet wells; and streets, signs, streetlights, trees and sidewalks, as well as hydrologic modeling and predictive maintenance for disaster management.

Jennifer Wood, P.E.

Project Manager

Experience: 11 Years

2016-Present
Sedaru

2008-2016
Consolidated Utility District

Key Skills:

- ✓ Model Building & Calibrating
- ✓ Asset Management
- ✓ Capital Improvement
- ✓ Water Quality
- ✓ GIS (Esri)
- ✓ Utility Operations
- ✓ Project Management

Education & Certificates:

Bachelor of Science, Civil Engineering
University of Tennessee at Martin

Professional Engineer
State of Tennessee
License #116272

Highlighted Project Experience

RUBIO CANON LAND AND WATER ASSOCIATION (RCLWA) – CA

Hydraulic Model Build, Calibration, and Sedaru Implementation
Project Manager

Sedaru is building and calibrating the utility's first water system hydraulic model. The model was built from GIS and CAD reference data. The steady-state calibration is currently in progress based on recent hydrant flow test, pressure, and available SCADA data. The model will be delivered in Sedaru Modeling for an easy-to-use solution to use for on-going model analysis and field verification.

AZUSA LIGHT AND WATER (ALW) – CA

Hydraulic Modeling Support
Project Engineer & Project QA/QC

Sedaru provides on-going modeling support for ALW in support of pipeline and pump station design projects and system capacity evaluations. Evaluated the water system capacity to provide adequate pressures under different demand conditions for the proposed Raider Crater industrial development. Developed system curves for the Vernon and 11th Street pump station for pump selection and design. Reviewed previous system analysis reports and validated findings and recommendations.

LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) – CA

Hydraulic Modeling Project for 29 Zone Models
Project Manager/Engineer

Sedaru is supporting LADWP with the water model construction, steady-state and extended period simulation calibrations, documentation, and training for 29 zone models which represent 29 distinct pressure zones. The project involves data collection, model development from LADWP GIS and best available data, and calibration using pressure survey, SCADA data, and institutional staff knowledge and experience. This is a multi-year project, with 5-8 models being built per year.

Additional Project Experience

LOS ANGELES DEPARTMENT OF WATER & POWER (LADWP) – CA
Griffith Park Hydraulic Model and Distribution Alternatives
Project Manager

Sedaru is teamed with Arcadis to develop and calibrate the hydraulic model which will be used to gain system knowledge and insight, evaluate the hydraulic and water quality characteristics of the existing infrastructure, and make improvement recommendations to meet service goals and regulatory compliance.

EAST VALLEY WATER DISTRICT (EVWD) – CA
Water and Sewer Master Plan Update
Project Manager

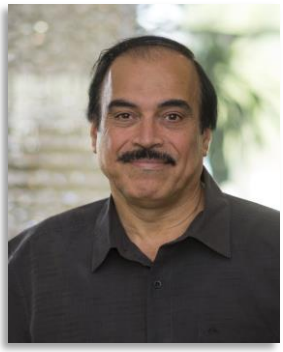
Sedaru teamed with Stantec to provide professional engineering services for the Water System Master Plan Update (WSMPU). The goals of this project are to update the water hydraulic model, analysis the system for deficiencies, develop prioritized and phased Capital Improvement Programs, and generate a GIS Database Management Plan for both water and sewer that the District can use for on-going GIS maintenance and model updates.

GOLETA WATER DISTRICT (GWD) – CA
SB Corp Well Blending & Hydraulic Constriction Analysis
Project Engineer

Sedaru created model scenarios to test the addition of a proposed groundwater well and the impact of that well on water quality. The analysis consisted of a source trace analysis using the existing well and analyzing the change in the blending ratio at the District's water quality sampling sites. In addition, the model was used to determine if any constrictions within the piping network would occur with the addition of the new well. The analysis was completed using the District's InfoWater model.

CITY OF SANTA ANA – CA
Water System Master Plan
Project Engineer

Sedaru is applying the potable water system model to support the City's Water Master Plan to identify CIP utilizing traditional hydraulic model and engineering methods, in addition to deploying Sedaru CIP to analyze condition and performance deficiencies from across multiple systems to automate the identification and prioritization of pipeline replacement projects.



Youssif Hussein, P.E.

Technical Advisor

Experience: 35 Years

2017-Present
Sedaru

1987-2016
CDM Smith

Key Skills:

- ✓ Hydraulic Modeling
- ✓ Hydrology
- ✓ Customer Billing Systems
- ✓ Asset Management
- ✓ Capital Improvement
- ✓ GIS (Esri)
- ✓ Master Planning

Education & Certificates:

Master of Science, Civil Engineering, Hydrology, & Water Resources Science
University of Texas Arlington

Professional Engineer
State of California
Certification #55678

Highlighted Project Experience

AZUSA LIGHT AND WATER (ALW) – CA

Hydraulic Modeling Support
Project Engineer

Mr. Hussein provides on-going modeling support for ALW in support of pipeline, pump station design projects, and system capacity evaluation. Evaluated the water system capacity to provide adequate pressures under different demand conditions for the proposed Raider Crater industrial development. Evaluated redundancy supply alternatives to serve the proposed development from adjacent pressure zones, performed hydraulic analyses, identified system deficiencies, and recommended system improvements. Developed system curves for the Vernon and 11th Street pump station for pump selection and design. Reviewed previous system analysis reports and validated findings and recommendations.

CITY OF POMONA – CA

Water & Wastewater Operations Utility Strategic Plan
Project Manager

Mr. Hussein led the development of the City's water distribution system hydraulic network model from GIS, demand allocation, and steady-state and EPS model calibration using hydrant tests, SCADA data, and field measurements. Diurnal curves were developed for each pressure zone using an hourly mass balance. The model was verified by comparing system operations with historical system operating data. Performed hydraulic analysis for different demand conditions and identified system improvements. A prioritized capital improvement plan was developed to meet distribution system needs for existing through buildout conditions.

Additional Project Experience

LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) – CA

Development of Hydraulic Models

Task Leader

Mr. Hussein is currently in charge of developing hydraulic models for specific pressure zones for LADWP. Model development includes importing physical and informational attributes from GIS geodatabases, demand allocation using billing data, elevation assignment using DEM, performing steady state and extended period simulation to calibrate model against SCADA data and field pressure measurement data.

GOLETA WATER DISTRICT (GWD) – CA

System Reliability and Rehabilitation Study

Senior Project Engineer

Mr. Hussein evaluated potential emergency, failure, and drought scenarios that could affect the Goleta Water District's water distribution system and identified the level of service based on the comparison of the available supply to the total demands. He performed a hydraulic analysis to identify facility improvement requirements and their associated costs.

NEVADA IRRIGATION DISTRICT (NID) – CA

Hydraulic System Analysis

Task Leader

Mr. Hussein has been performing hydraulic analyses for NID in support of design projects and system capacity evaluation. Evaluated the backbone extension program (BEP) proposed along Rattlesnake Road in the Loma Rica System for capacity meet system requirements while the Osborn Hill Tank and La Barr Meadows pressure reducing station (PRV) are out of service. Evaluated the impact of adding the Placer County Water System (PCWS) to the existing NID water system and assess the capacity of the NID water system under different existing demand conditions to meet system pressures and fire flow requirements. Evaluated the District's Rodeo Flat Pump Station (PS) to determine if it is possible to serve the Table Meadows project without upgrading the pump station and evaluated upgrading some of the existing pumps to serve the project.

Matt Sellers, P.E.

Project Engineer

Experience: 13 Years

2017-Present
Sedaru

2009-2017
CH2M Hill

2006-2008
Wiedeman and Singleton, Inc

Key Skills:

- ✓ Model Building & Calibrating
- ✓ Real-Time Modeling
- ✓ Demand Allocation
- ✓ Field Monitoring
- ✓ Master Planning
- ✓ Real-Time Operations
- ✓ Water Quality
- ✓ Non-revenue Water Studies

Education & Certificates:

Bachelor of Science, Civil & Environmental Engineering
Georgia Institute of Technology

Professional Engineer
State of Georgia PE038776

Distribution II (D2) Cert.
California SWRCB Operator #50081

Highlighted Project Experience

CITY OF POMONA – CA

Water & Wastewater Operations Utility Strategic Plan
Task Leader, Water System Hydraulic Analysis

Sedaru developed the City's water distribution system hydraulic network model from GIS, allocated customer demands to model junctions using customer billing information, and calibrated the model under steady-state and EPS conditions using hydrant tests, SCADA data, and field measurements. Diurnal curves were developed for each pressure zone using an hourly mass balance. The model was verified by comparing system operations with historical system operating data. Performed hydraulic analysis for different demand conditions and identified system improvements. A prioritized capital improvement plan was developed to meet distribution system needs for existing through buildout conditions.

EAST VALLEY WATER DISTRICT – CA

Water and Sewer Master Plan Update
Project Engineer/Modeling Lead

Sedaru teamed with Stantec to provide professional engineering services for the Water System Master Plan Update (WSMPU). The goals of this project are to update the water hydraulic model, analysis the system for deficiencies, develop prioritized and phased Capital Improvement Programs, and generate a GIS Database Management Plan for both water and sewer that the District can use for on-going GIS maintenance and model updates.

Additional Project Experience

SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
Real-Time Modeling and Water Loss
Project Manager/ Engineer

RWA uses Sedaru to power their Water Distribution System Optimization initiative. RWA uses Sedaru to analyze SCADA data with real-time hydraulic modeling to understand past, present and predict future water operations to help inform RWAs operational. Sedaru also provides RWA greater insight into daily water loss by unifying AMI consumption data, real-time SCADA, and hydraulic model.

CITY OF SANTA ANA – CA
Uni-directional Flushing Plan
Project Manager/Modeling Lead

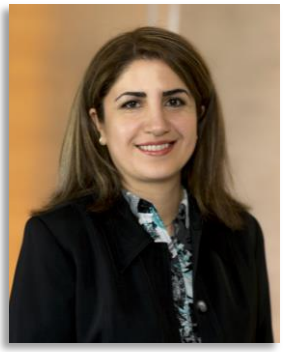
Sedaru was tasked with developing a detailed uni-directional flushing plan for approximately 30% of the water distribution system in order to help Santa Ana ensure water quality. The plan includes a comprehensive methodology and recommended best practices for executing their UDF plan, including customer engagement.

CITY OF SANTA ANA – CA
Walnut Pump Station Analysis
Project Manager/Modeling Lead

Utilize the hydraulic model to help predict how the system might respond to the Walnut Pump Station startup test which needs to reach full capacity (30 cfs) under June 2018 conditions. The hydraulic model will be used to predict the system's automatic response based on existing controls and will also be used to create a manual schedule to turn off supply facilities during the pump startup test.

CONSOLIDATED WATER WORKS (CWW) – LA
Model Development and Calibration
Project Manager/Engineer

CWW serves potable water to over 42,000 customers from two water treatment plants across over 1,000 miles of pipe, 16 elevated tanks, 5 ground tanks, and 2 standpipes. The purpose of this project is to build and calibrate CWW's first hydraulic model so they may have a valuable planning and operational tool. In addition, the finished model will be utilized in the Sedaru Smart Modeling application, where CWW will be able to quickly run scenarios to test hydrant flows, anticipated demands, and general effects of system changes on the distribution system.



Behnaz Khakbaz, PH.D., P.E.

Project Engineer

Experience: 6 Years

2017-Present
Sedaru

2015-2017
AECOM

2013-2014
URS Corporation

Key Skills:

- ✓ Model Building & Calibrating
- ✓ Network Analysis
- ✓ Asset Management
- ✓ Capital Improvement
- ✓ GIS (Esri)

Education & Certificates:

PH.D., Civil Engineering- Water Resources
University of California, Irvine

Master of Science, Civil Engineering- Hydraulic Studies
Sharif University of Technology

Bachelor of Science, Civil Engineering
Sharif University of Technology

Professional Engineer
State of California #C79323

Highlighted Project Experience

CITY OF POMONA – CA

Water & Wastewater Operations Utility Strategic Plan
Project Engineer

Sedaru developed the City's water distribution system hydraulic network model from GIS, allocated customer demands to model junctions using customer billing information, and calibrated the model under steady-state and EPS conditions using hydrant tests, SCADA data, and field measurements. Diurnal curves were developed for each pressure zone using an hourly mass balance. The model was verified by comparing system operations with historical system operating data. Performed hydraulic analysis for different demand conditions and identified system improvements. A prioritized capital improvement plan was developed to meet distribution system needs for existing through buildout conditions.

AZUSA LIGHT AND WATER (ALW) – CA

Hydraulic Modeling Support
Project Engineer

Sedaru provides on-going modeling support for ALW in support of pipeline, pump station design projects, and system capacity evaluation. Evaluated the water system capacity to provide adequate pressures under different demand conditions for the proposed Raider Crater industrial development. Evaluated redundancy supply alternatives to serve the proposed development from adjacent pressure zones, performed hydraulic analyses, identified system deficiencies, and recommended system improvements. Developed system curves for the Vernon and 11th Street pump station for pump selection and design. Reviewed previous system analysis reports and validated findings and recommendations.

Additional Project Experience

LOS ANGELES DEPT. OF WATER & POWER (LADWP) – CA
Hydraulic Computer Model and Water Distribution Alternatives
Project Engineer

Sedaru is teamed with Arcadis to develop and calibrate the hydraulic model which will be used to gain system knowledge and insight, evaluate the hydraulic and water quality characteristics of the existing infrastructure, and make improvement recommendations to meet service goals and regulatory compliance. Ms. Khakbaz developed the hydraulic model for the Griffith Park water system using InfoWater which involved importing GIS-based data to the model, demand allocation, and model calibration and validation.

CITY OF SANTA ANA – CA
Targeted Uni-Directional Flushing Program
Project Engineer

Ms. Khakbaz developed UDF sequences for 3 areas of the City's water distribution system to pilot a UDF program using the City's existing hydraulic model in conjunction with a built-in tool in WaterCAD™ for UDF sequencing with the objectives of 1) reducing the amount of flushing water volume and costs associated with maintaining a suitable level of water quality and 2) removing sediment in the pipes through high velocity scouring of pipes.

CONSOLIDATED WATER WORKS DISTRICT NO. 1 (CWW) – LA
Water Model Build and Calibration
Project Engineer

Ms. Khakbaz developed a WaterCAD hydraulic model of the District's water distribution system from the District's GIS geodatabase, available facility schematics, and demand information from the water customer billing database. The model was calibrated against SCADA as well as historical hydrant flow data.

CITY OF NEWPORT BEACH – CA
Water Master Plan
Project Engineer

Sedaru is teamed with Arcadis to develop the City's Water Master Plan. Ms. Khakbaz developed the City's water distribution model in InfoWater using GIS data, customer billing information, and facility reference drawings. The model was calibrated under steady-state and EPS conditions using hydrant field test data and available SCADA.

Ramon Gallegos

Sedaru Implementation Manager/GIS Advisor

Experience: 15 Years

2016-Present
Sedaru

2004-2016
EEC Environmental

Key Skills:

- ✓GIS (Esri)
- ✓Data Analysis
- ✓Enterprise Integration
- ✓Database Systems
- ✓Project Management
- ✓Process Automation
- ✓Field Workflows

Education & Certificates:

Master of Arts- Geography
California State University, Fullerton

Bachelor of Arts- Geography
California State University, Fullerton

Highlighted Project Experience

RUBIO CANON LAND AND WATER ASSOCIATION (RCLWA) – CA

Enterprise Work Management
Implementation Manager

RCLWA has implemented Sedaru to support workflows including valve exercising, system flushing, water production data collection and reporting, and fire flow testing. Valve exercising will include integration to Pacific-Tek valve turning machine.

AZUSA LIGHT & WATER (ALW) – CA

Sedaru CMMS & Field Data Collection
Project Manager

ALW has deployed Sedaru to support water distribution and production inspections and maintenance. Sedaru is used by field crews and operations to manage valve exercising, hydrant maintenance, fire flow tests, facility meter reads, water production facility inspections, backflow repair, water sampling and more. Field crews are also using Sedaru to operate and automatically collect data from their Wachs Valve Machine. ALW is also using Sedaru Modeling to analyze their hydraulic model. They are implementing Sedaru CIP to enable dynamic master planning and asset management.

CITY OF POMONA – CA

Dynamic Asset Management & Field Data Collection
Implementation & Support Manager

Sedaru is deployed at the City of Pomona, supporting dynamic asset management and field data collection. The City is using Sedaru to manage hydrants, valves, meters, water production, and water treatment assets. In addition, sewer main maintenance and manhole inspections are managed in Sedaru. Sedaru is also working with the City to develop and update the City's Utility Strategic Plan in Sedaru CIP. This plan acts as a dynamic master plan, helping to prioritize asset maintenance and replacement.

Additional Project Experience

COUNTY OF VENTURA PUBLIC WORKS – CA

GIS Build & Sedaru CMMS
Project Manager

Ventura is using Sedaru to manage workflows and build GIS. Sedaru is building and augmenting its water, sewer, and recycled water GIS layers. Sedaru will also manage the county's water distribution and sewer maintenance activities, enabling office staff and field workers to streamline work management and field data collection. Sedaru will integrate with Digalert to optimize the County's management of call before your dig tickets. In the field, the Sedaru integration to the County's Wachs Valve Machine will automate data collection from their valve exercising program.

EAST ORANGE COUNTY WATER DISTRICT (EOCWD) – CA

GIS Build & Sedaru CMMS
GIS and Sedaru Implementation Manager

Sedaru built the District's water GIS, build and calibrated their hydraulic model, and deployed Sedaru CMMS with field mobility for its water and wastewater system. Sedaru built the District's GIS utilizing Esri's local government information model (LGIM) to ensure topology, then trained and deployed a successful enterprise field mobile solution across all water & wastewater system assets.

CITY OF SANTA ANA – CA

Water Production and Advanced Reporting
Project Manager

City is collecting water production field data with Sedaru. Sedaru OMNI uses the production data to automate and manage water production reports. Sedaru worked directly with City staff to identify KPIs and optimize data capture and reporting workflows.

CITY OF COACHELLA – CA

GIS Build & Sedaru Outage
Project Manager

City is using Sedaru to manage day to day operations for water distribution and wastewater. Sedaru staff built the City's GIS from existing AutoCAD drawings, as-builts, and field redlines. Sedaru staff worked with the City to identify and optimize key workflows and KPIs. Sedaru also configured Sedaru Outage to help plan and manage water related outage. Sedaru Outage plays a key role in how the City communicates planned outage information with public.

CRESCENTA VALLEY WEEKLY
THE FOOTHILLS COMMUNITY NEWSPAPER

County Letters Raise Alarm for Local Residents

By CV Weekly on July 18, 2019

County of Los Angeles ♦ Department of Public Health
Environmental Health Division
5050 Commerce Drive, Baldwin Park, CA 91706

This letter is for information only, no action is required on your part unless you feel you have received this letter in error. According to the County Los Angeles, Department of Public Health's (DPH) records, your property has either a Conventional Onsite Wastewater Treatment System (OWTS), commonly known as a septic system, or a Non-Conventional Onsite Wastewater Treatment System (NOWTS), commonly known as an advanced treatment septic system.

On October 2, 2018, the Los Angeles County Board of Supervisors adopted the Local Agency Management Program (LAMP) Ordinance. The LAMP allows DPH to monitor wastewater disposal systems and work with residents to ensure public health protections are in place. The LAMP also includes a water quality assessment component to assess the extent to which groundwater and local surface water quality may be adversely impacted by wastewater disposal systems/septic systems.

Beginning with the 2019 property tax assessments, properties that dispose of wastewater through a septic system will be assessed an annual fee to support the services and analysis associated with the water quality assessment program. For conventional systems, the fee will be $5/year and for non-conventional systems, the fee will be $43/year.

If you are connected to a municipal sewer system or if you believe you have received this notice in error, please provide DPH with proof of a sewer connection, such as a sewer bill or an approved building permit to have your property removed from our database.

For more information, please visit http://publichealth.lacounty.gov/eh/EP/lu/lu_main.htm or contact the Land Use Program at (626) 430-5380 or dlanduse@ph.lacounty.gov.

Sincerely,

Liza Frias

Liza Frias, REHS
Director of Environmental Health
Department of Public Health
5050 Commerce Drive, Baldwin Park, CA 91706
www.publichealth.lacounty.gov/eh/

Comments

By Mary O'KEEFE

Several residents in the unincorporated area of Los Angeles County, including La Crescenta/Montrose, have received a letter from the County Dept. of Public Health/Environmental Health Division dated June 20 informing them of a $5 to $43 annual fee that would be charged to them for their septic tank via their property tax assessments.

The problem is most residents do not have septic tanks and pay for their sewer treatment via Crescenta Valley Water District.

Residents began calling Crescenta Valley Town Council President Harry Leon as soon as the letters began hitting mailboxes.

"I contacted Supervisor [Kathryn] Barger's office," Leon said.

What he learned was these letters had been sent out to about 49,000 addresses.

"The County didn't have the data of who had septic [tanks] and who didn't," he said.

CV Water District also began getting calls from residents concerned about the letter.

"We sent the Public Health Dept. a list of all our customers," said CVWD spokeswoman Christy Scott. "Residents don't have to do anything else."

Scott added if residents wanted to they could mail a copy of their CVWD bill to the Public Health Dept. showing that payment for sewer service is through CVWD, as the letter states.

The Dept. of Public Health Environmental Health website states, "It has been brought to our attention that communication from the Department of Public Health Environmental Health (DPH-EH) Division regarding septic systems has resulted in numerous calls to both the Board office and through Environmental Health. The intent of the letter was to prevent erroneous errors in future billing and unfortunately has created confusion and frustrations for property owners. Please accept our apologies for the discrepancies in our records. Our department is taking action to rectify this situation.

"At this time property owners are not being required to take any action to demonstrate that they are connected to the municipal sewer system. After our records have been compared to other County agency's records and municipal water and sewer district records, we will work with Board offices to notify impacted constituents."

Supervisor Barger received a "ton" of calls, according to Sussy Nemer, the supervisor's representative. The letters were sent throughout the unincorporated areas of LA County.

Barger will be introducing a motion at the July 23 meeting of LA County Board of Supervisors regarding the letters. According to the motion, there are currently 47,000 septic systems, plus an additional 900 non-conventional onsite wastewater treatment systems, with the majority in the County's Fifth District – Barger's district.

The letters were sent to residents in compliance with recently adopted changes to State Onsite Wastewater Treatment Systems Policy and, in October 2018, the County opted to adopt a Local Agency Management Plan ordinance.

If the County had not adopted the policy the State of California would have assumed oversight and charged a fee of $1,044 per year for residential systems and $2,088 annually for commercial systems. By adopting the policy it did, county fees are assessed at a lower rate increase of $43 per year for non-conventional systems and $5 annually for conventional systems.

In the motion, Barger has asked for a letter of explanation sent to residents within 30 days as well as having the Dept. of Public Works and other stakeholders update their records.

Although CVWD has sent a list of its customers to the County, residents who want to can still send the DPH proof of a sewer connection via a sewer bill or an “approved building permit to have your property removed from our database,” according to the County letter.

For more information, contact (626) 430-5380 or email dlanduse@phlacounty.gov. Residents can also call CVWD at (818) 248-3925.

Mary Okeefe

CRESCENTA VALLEY WEEKLY
THE FOOTHILLS COMMUNITY NEWSPAPER

CVWD Rate Hike Protest Letters Accepted Now

By CV Weekly on July 18, 20190 Comments

By Mary O'KEEFE

In compliance with Proposition 218, Crescenta Valley Water District is asking for letters/protests regarding a possible rate increase. If this sounds familiar, that's because the District had asked for comments a few months ago.

If the rate increase is approved, a water bill for a typical resident with a 3/4-inch meter using 17 units of water during a two-month billing period would increase by $10.65, from $152.13 to $162.78. A wastewater bill for the same typical residence would increase by $3.03, from $77.57 to $80.60 in a two-month billing period, according to CVWD.

CVWD customers have been receiving notices explaining the proposed impact and notifying them of a public meeting on the issue on Aug. 27 at 6 p.m. at the CVWD boardroom, 2700 Foothill Blvd. in La Crescenta.

On June 27, during a CVWD meeting, customers were surprised when board president James Bodnar announced that the board would not take a vote on the proposed increases as planned. According to a recent mailer to customers, CVWD stated input from customers caused the board to adjust its voting schedule. It found that earlier notices on the issue did "not make it clear that property owners and CVWD customers had the right to protest the proposed increases."

Protest letters can now be sent to CVWD concerning the Water and Waste Water Bill Increase, with a deadline for email or mail of Aug. 23. People can hand-deliver their protest letter to the Aug. 27 community meeting as well.

What needs to be included in the written protest under Prop 218, according to CVWD's website, is the following information: parcel site address, name and signature of the parcel owner or tenant, a statement that the customer is protesting the proposed rates. The customer does not have to give a reason for his/her opposition; opposition alone is sufficient.

It is important to note that emailed protests must be scanned or photographed with a handwritten signature. Email text will not be accepted. Please ensure scans/photos are clear and legible.

The protest letters can be emailed to customerservice@cvwd.com, mailed to Crescenta Valley Water District, 2700 Foothill Blvd., La Crescenta, California 91214, hand-delivered to the CVWD offices (there is a drop box to the right side of the entrance) or handed to the CVWD staff at the public hearing.

At the District's June 11 meeting the treasurer presented the data from the protest letters it had received during the first go around. It was determined that 94 letters had met all the requirements of Prop 218 and were being considered as a formal protest. The criteria included that all letters were signed by the owner or tenant, only one protest letter per address was allowed, the property address was shown on the letter and the address was serviced by CVWD. At the time the District received an additional 279 protests that were not considered valid because they had one or more of the criteria missing. A number of those who emailed protests, after being informed of the invalidating issues, resubmitted and those protests were included in the 94 approved total.

July 16, 2019 Proposed Rate Increases and Feedback on July 9 Board Mtg (2 pages)

To: CVWD Board of Directors
CC: Tom Bunn, Attorney for CVWD
From: Marilyn Imura Tyler (address and signature below)
La Crescenta CA
Subject: Proposed Rate Increases and Feedback on July 9 Board Meeting (2 pages)

I want to thank the CVWD Board of Directors for the opportunity to speak and to participate in a limited way in the discussion on the proposed new Prop. 218 notice. I appreciate the comments from the Board which showed they had thought seriously about my concerns. The Board members took the time to share with me their own concerns and ideas, from Director Putnam who wanted to make sure I was heard, to Director Raghavachary who said she might be back from vacation on September 9 if there was a Board meeting on September 10, to Director Tejeda who pointed out that the community might prefer to have the Public Hearing and vote by the Board on the same night so the community would not have to return on a different night for the Board vote, to Director Erickson who pointed out that the the Board was receiving input from the community over the entire 45 day period, not just at the public hearing, which lessened the importance of the public hearing? All of your comments are valid and show the complexity of truth, which has many aspects.

I want to explain why I feel it was important to have the Public Hearing separated from the Board vote by at least two weeks. At the public hearing on June 11, a CVWD customer who was a renter spoke up, presenting new information which ultimately led, I believe, to CVWD changing direction from planning to approve the rate increases to deciding CVWD had to issue a new Prop. 218 notice.

But this change in direction by CVWD did not occur instantaneously. Initially CVWD brushed off the significance of the renter's comments, as shown by the "Public Hearing Questions and Answers" which CVWD published on their website shortly after the Public Hearing, which stated: "It is the opinion of the District's legal counsel that the District's prop. 218 notice complied with prop. 218. In future notices, the District will make it clearer that tenants as well as owners may file protests."

It took further letters to the Board by another CVWD customer, which showed that in 2019 CVWD intentionally contributed to the misleading idea that only property owners could write letters of protest, it took this further research and writing which I believe ultimately convinced the CVWD Board to change direction and issue a new Prop. 218 notice.

So sometimes something new may be revealed at the Public Hearing which was was not known ahead of time (I assume that the renter did not submit a written letter of protest), something new is revealed by the community which must be taken seriously---and this takes time. That's why

I'm asking, in the future, for a separation by at least two weeks between the Public Hearing and the Board vote.

I want to thank Dirctor Bodnar for bringing my attention to the graph which was distributed at the July 9 Board meeting. In retrospect it should have been obvious to me, but the graph showed that water consumption is highest during the summer and fall, so by delaying the rate increase to September (why did the graph show September 15 rather than September 1 for implementation of the new rates? You could have held the Board vote on September 10!), significant revenue would possibly be lost. The chart shows a 9.5% rate increase rather than the proposed 7% increase would be needed to make up the revenue shortfall. Great thanks to Director Tejeda for nixing the idea of proposing a 9.5% increase in the new Prop. 218 notice---I can't imagine how the community would have reacted to that.

In light of everything I have heard at the July 9 CVWD Board meeting, I am retracting my letter of protest to the proposed rate increases.

Marilyn Tyler
3139 Brookhill St.
La Quinta

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

GM Report

To: Honorable President and Members of the Board of Directors July 23, 2019

From: Nem Ochoa, General Manager

Subject: **General Manager Report**

General Managers Report Topics:

- GM Activities

The following are some highlights in this month's report:

- Update on Los Angeles County Letter to CVWD customers
- Update on FMWD Tier 2 charge
- Draft Strategic Plan
- Director Stipend Report

STAFFING

Four (4) employees have a work anniversary in July. Morgen DuRose – 18 years, Steve Dulay – 13 years, Christina Olmedo – 13 years, Wayne Boyce – 1 year.

As of July 19th the District has gone 1,865 days without a lost time accident.

GENERAL MANAGER ACTIVITIES

Meetings:

Management staff meetings	- July 15th, July 22nd
Engineering Committee	- July 12th
All-hands meeting	- July 17th

Submitted by:

_____

Nem Ochoa
General Manager

CRESCENTA VALLEY WATER DISTRICT
DIRECTOR STIPEND/REIMBURSEMENT REPORT
JULY 2019

Name	Meeting Date	Meeting/ Event	Items Discussed	Meeting Compensation	Expense Reimbursement
Director Bodnar	07/09/19	Board Meeting		$ 90.00	
	07/12/19	Engineering Committee	CIP, SSMP, CV High, Hydraulic modeling	$ 90.00	
	07/23/19	Board Meeting		$ 90.00	
Director Erickson	07/09/19	Board Meeting		$ 90.00	
	07/12/19	Engineering Committee	CIP, SSMP, CV High, Hydraulic modeling	$ 90.00	
	07/23/19	Board Meeting		$ 90.00	
Director Putnam	07/09/19	Board Meeting		$ 90.00	
	07/23/19	Board Meeting		$ 90.00	
Director Raghavachary	07/09/19	Board Meeting		$ 90.00	
	07/23/19	Board Meeting		$ 90.00	
	07/23/19	Community Rel. Com.	Community events, Facebook page	$ -	
Director Tejeda	07/09/19	Board Meeting		$ 90.00	
	07/23/19	Board Meeting		$ 90.00	
	07/23/19	Community Rel. Com.	Community events, Facebook page	$ -	
	07/24/19	ACWA Women in Water	Women in Water breakfast	$ 90.00	

CRESCENTA VALLEY WATER DISTRICT
M E M O R A N D U M

DATE: July 12, 2019

TO: Engineering Committee

FROM: David S. Gould, District Engineer

SUBJECT: CVWD Engineering Committee Meeting No. 311

Following is a summary of Engineering Committee Meeting No. 311, held at 9:00 AM on July 12, 2019, at the CVWD main office, and was attended by the following:

Director Kerry Erickson - Committee Chairperson	CVWD
Director James Bodnar	CVWD
Nem Ochoa – General Manager	CVWD
David Gould – District Engineer	CVWD
Brook Yared – Senior Engineer	CVWD
Dennis Maxwell – Operations & Maintenance Manager	CVWD

1. Status of Groundwater Wells and Well Capacity

Mr. Gould provided an updated chart on water production from 2016 to present that indicated that groundwater production has increased over the last few months. Also, Mr. Gould discussed that water production was increased by operations during the July 4th weekend in case of fire and in preparation for the coming high summer demands over the next several weeks. Director Bodnar suggested for staff to look into possible MWD programs that may provide lower cost imported water as MWD has excess water available due to this year's high State Water Project Allocation.

2. FY 19/20 – Capital Improvement Project (CIP) Program

Mr. Gould presented an updated CIP budget and administration consultant's budget relative to the proposed rate increase postponed until August 2019. Director Bodnar suggested that the CIP budget should be adjusted after the final rate increase is approved and the amount of lost revenue is determined. Mr. Gould indicated that staff will provide an updated budget with possible reductions in the CIP at a future Engineering Committee meeting. In the meantime, the Engineering Department is moving forward with the pipeline replacement and reservoir rehabilitation projects. Mr. Gould also discussed the administration consultant's budget and proceeding with upgrading the hydraulic model (as discussed in item 4.)

3. Sanitary Sewer Overflow Plan (SSMP) – 2019 Review

Mr. Yared presented to 2019 SSMP to the Engineering Committee for review and discussion. Mr. Yared discussed that staff reviewed the 2016 SSMP and updated Sections 4, 5, 6 and 8 to better represent CVWD's office and field practices. Mr. Yared explained that there is a summary of 2019 SSMP changes found in Appendix 10-A highlighting the changes made in this audit and all previous audits. Mr. Yared reviewed the schedule for recertification and the major items that were updated (i.e. new vactor truck, root intrusion, training changes.) Staff plans to bring this item to the Board of Directors at the July 23, 2019 meeting to approve recertification of the SSMP.

4. Proposals for Hydraulic Modeling Update

Mr. Yared discussed updating CVWD's hydraulic model, which was originally developed in 2007, and pointed out that the hydraulic model is a valuable tool to integrate into the daily operations, gives staff the ability to perform virtual fire flow testing, prepare an analysis of booster pumps with possible power cost savings, water quality and surge analysis, and asset management. Mr. Yared indicated he has met with two firms, Akel Engineering Group, Inc. and Sedaru, Inc. Both firms were asked to submit proposals covering the same scope of work. Mr. Yared explained that Sedaru was the larger firm with clients in the Foothill Family of Agencies. Sedaru also has direct experience with CVWD's GIS database since they helped CVWD put it together in 2007. Mr.

Yared also reviewed limitations of Sedaru's asset management software platform (i.e. cost and hardware limitations). Akel Engineering Group came in with a lower bid and had very high remarks from all their recommendations. After reviewing the proposals, The Engineering Committee concurred with Staff's recommendation to propose that the Board of Directors award the contract for hydraulic modeling to Akel Engineering Group.

5. Crescenta Valley High School (CVHS) – Water Loss:

Mr. Yared discussed the recent discovery of unauthorized water use at CVHS by the Glendale Unified School District. In 2006, GUSD performed the installation of an irrigation connection to the existing 6-inch water main that passes beneath the track and field. Director Bodnar indicated that he has issues with GUSD and recused himself from further discussion on this item. Mr. Yared indicated that this unauthorized water use was a theft of water and that staff was proceeding to do an investigation in accordance with CVWD's Water Theft Policy. Mr. Yared explained staff's methodology to determine the amount of water used from 2006 to 2019, and the costs associated with this use. Director Erickson suggested that we provide the information to GUSD for their response before bringing this issue back to the Board of Directors.

6. Next Meeting

- August 23, 2019 at 9:00 am

Adjournment - The Engineering Committee meeting was adjourned at 9:55 am on July 12, 2019

See CVWD Website www.cvwd.com for the Engineering Committee Packet