

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, 2024, at 7:00 p.m.

Posted: Friday, July 19, 2024, at 5:00 p.m.

This meeting will be conducted in person at the address listed above. Members of the public may also participate virtually by using a touchtone phone. You may select any of the following phone numbers (there are more than one for increased reliability during this time of increased phone traffic)

(669) 900-6833

(346) 248-7799

(929) 205-6099

(253) 215-8782

(301) 715-8592

(312) 626-6799

Then, enter Access Code: 836 9601 9930

Those members of the public who are able to and would like to additionally participate through computer may access the Zoom audio & video conferencing tool available at the following link:

<https://us02web.zoom.us/j/83696019930>

If there is a disruption of service, this meeting will continue without remote participation. The remote participation option is provided as a convenience to the public and is not required.

Public comment may be made either by emailing comments ahead of the meeting or by speaking over the phone. Emailed comments will be sent to the Board of Directors prior to the meeting and posted on the District's website. Comments may be sent to Customer Service, at (818) 248-3925 or customerservice@cvwd.com by 3pm on July 23, 2024.

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by contacting the District by phone or in writing at the above email address. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

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 and posted on the District's website.

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

Public Comments

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-minute (3) comment. Under the provisions of the Brown Act, the Board is prohibited from taking action on items not listed on the agenda, except under certain circumstances.

Foothill Municipal Water District Report

Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of the Minutes of the of the Adjourned Regular Board Meeting on June 25, 2024.
2. Ratification of Disbursements for May 2024 and June 2024.
3. Ratification of Board Compensation for June 2024.

Action Calendar

1. **Water and Wastewater Rate Study** – Consideration and motion to authorize the General Manager to award a contract for the completion of a water budget-based rate study and wastewater rate study to Water Resources Economics (WRE) at a cost of \$112,460 and establish a contingency amount of \$11,246 (10% of contract) to cover the cost of unforeseen or additional work.
2. **Rules and Regulations Updates** – Consideration and possible motion to adopt changes to the District's Rules and Regulations Section 8:03 – The Bill Assistance Program, Appendix E – Rates and Charges for Water Service, Appendix H: Rates and Charges for Sewer Service, and the Bill Assistance Program application.
3. **Adoption of FY 2024-25 Pay Schedules for CalPERS Compliance** – Consideration and motion to adopt the current pay schedules.

Information Items

Written Communications to District/Board of Directors

General Manager's Report

Attorney Report

Reports of Committees

- Engineering and Operations Committee
- Finance Committee
- Employee Relations Committee
- Policy Committee
- Community Relations/Water Conservation Committee
- Emergency Planning Committee
- Technology Committee
- Ad Hoc PFAS Committee

Directors' Oral Reports – Reports on issues, meetings, or activities attended by Directors.

Board Members' Request for Future Agenda Items

Closed Session

CONFERENCE WITH LEGAL COUNSEL

Existing Litigation - (Paragraph (1) of subdivision (d) of Section 54956.9) Name of Case: Aqueous Film-Forming Foam (AFFF) Product Liability Litigation (MDL 2873), DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA, MASTER DOCKET NO. 2:18-MN-2873-RMG

EMPLOYEE PERFORMANCE EVALUATION

Position: General Manager

Adjournment



CRESCENTA VALLEY WATER DISTRICT
ADJOURNED REGULAR MEETING, BOARD OF DIRECTORS
June 25, 2024

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District made at the Regular Meeting on June 11, 2024, an Adjourned Regular Meeting was held on June 25, 2024, at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California and through audio and video conference. A call-in number was clearly noted on the meeting Agenda, posted in accordance with the Brown Act, with President Sharon Raghavachary presiding.

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

Directors:	James D. Bodnar (remote participation) Kerry D. Erickson (absent) Jeffery W. Johnson Sharon S. Raghavachary Jennifer T. Valdez
Attorney:	Thomas Bunn
General Manager:	James Lee
Interim Director of Finance and Administration:	Arturo Montes
Director of Engineering and Operations:	Carla Dillon
Staff Members:	Tessa Allmon, Customer Service Lead Patrick Atwater, Regulatory & Public Affairs Manager Pam Leddy, Administrative Assistant Adam Sutphin, Senior Management Analyst
Guests:	Frank Colcord, Foothill Municipal Water District (remote) Anya Kwan, Best, Best & Kreiger Karen Ramirez

Director Bodnar announced that he was participating virtually for just cause involving care of a family member. He stated that there were no other individuals 18 years of age or older present at the remote location.

PLEDGE OF ALLEGIANCE

Mr. Sutphin opened the meeting by leading the Directors and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA

It was moved by Director Johnson, seconded by Director Valdez, and carried by a 4-0 roll call vote that the revised Agenda for the Adjourned Regular Meeting of June 25, 2024, be adopted.

AYES: **Director Bodnar**
 Director Johnson
 Director Raghavachary
 Director Valdez

ABSENT: **Director Erickson**

NOES: **None**

PUBLIC COMMENTS – No public comments.

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – Mr. Colcord stated that Adan Ortega Jr., Chair of the Board for Metropolitan Water District, announced that Adel Hagekhalil has been placed on paid administrative leave for 90 days to investigate various personnel matters.

CONSENT CALENDAR

It was moved by Director Johnson, seconded by Director Valdez, and carried by a 3-0 roll call vote to approve the Minutes of the Regular Board Meeting held on June 11, 2024.

AYES: **Director Bodnar**
 Director Johnson
 Director Valdez

ABSTAIN: **Director Raghavachary**

ABSENT: **Director Erickson**

NOES: **None**

CLOSED SESSION – No reportable action

ACTION CALENDAR

Replacement of Well 2 Filter with Granular Activated Carbon (GAC), Project M-1084 – Ms. Dillon provided the background of Well 2, noting that Well 2 is introduced directly into Zone 2 and does not have the opportunity to blend with imported water prior to its point of use. Ms. Dillon stated that PFAS levels of Well 2 had increased significantly since it was first sampled in 2023 and noted that in order to continue operating Well 2, either imported water levels would need to increase or additional treatment

would be necessary. Ms. Dillon provided the overall treatment cost, SCADA control adjustments, and DDW permitting amendments. Ms. Dillon explained that Well 2 filter replacement would present a low-cost opportunity to test the efficacy of Granular Activated Carbon (GAC) treatment for the removal of PFAS.

Following discussion:

It was moved by Director Johnson, seconded by Director Bodnar, and carried by a 4-0 roll call vote to authorize the General Manager to award contracts for the installation and replacement of the filter media at the Well 2 Biological Nitrate Removal Facility at Ordunio Reservoir at a cost not to exceed \$100,000, including contingency.

AYES: Director Bodnar
Director Johnson
Director Raghavachary
Director Valdez

ABSENT: Director Erickson

NOES: None

Design RFP for FY 2024-25 Contracted Pipeline Jobs, Project E-1083 – Ms. Dillon stated that CVWD’s goal is to replace 25.02 miles of pipeline before 2035, approximately 2.5 miles of pipeline annually on average. Ms. Dillon said that in order to meet the timely replacement of the aging infrastructure, the assistance of a consulting engineering firm to prepare plans and specifications is necessary. Ms. Dillon provided a request for proposal (RFP) that staff intends to send to six (6) consulting engineering firms with prior experience for the design of similar water infrastructure experience.

Following discussion:

It was moved by Director Valdez, seconded by Director Bodnar, and carried by a 4-0 roll call vote to request proposals from professional engineering services providers for assistance in generating designs and specification for FY 24/25 pipeline replacement capital improvement, project E-1083, which includes replacement of pipelines along Alabama Ave. (Blocks 2800 & 3000-3100), Stevens St. (Blocks 3000-3100), Mary St. (Blocks 2800-2900, 2700 Block of Franklin St. (Block 2700) and Park Vista (Block 3200).

AYES: Director Bodnar
Director Johnson
Director Raghavachary
Director Valdez

ABSENT: Director Erickson

NOES: None

Backhoe Equipment Purchase – Ms. Dillon shared that the existing 2007 John Deere backhoe, which is an integral piece of equipment used by the Operations and Maintenance Division for core operations and maintenance activities, is nearing the end of its useful life. Ms. Dillon stated that the South Coast Air Quality Management District has offered incentives to retire older, higher emissions equipment, and that staff has secured a Carl Moyer Program grant in the amount of \$31,114 to be applied toward the purchase of a new backhoe.

Following discussion:

It was moved by Director Bodnar, seconded by Director Johnson, and carried by a 4-0 roll call vote to authorize the purchase of a new Backhoe for a base cost of \$183,000 plus taxes and registration for an amount not to exceed \$205,000, exclusive of grant reimbursement in the amount of \$31,114 in FY 24/25.

AYES: **Director Bodnar**
 Director Johnson
 Director Raghavachary
 Director Valdez

ABSENT: **Director Erickson**

NOES: **None**

Rosemont Preserve – Advancing Project Funds Prior to Grant Reimbursement – Mr. Atwater announced that the Community Relations and Water Conservation Committee have discussed a project at Goss Canyon to enable additional groundwater recharge from stormwater through a straightforward excavation project. The project would 1) enhance the stormwater retention and groundwater recharge and serve as a precursor to a larger scale stormwater capture at CV Park, 2) improve functionality, safety, and aesthetics of the entry gate, 3) create an outdoor lending library and educational signage. Mr. Atwater provided detailed information about the Rosemont Preserve Stormwater & Community Access Project including pictures of the design ideas for a new entry, educational signage, and location maps. Mr. Lee added that the project will be brought back to the Community Relations Committee for further discussion.

Workplace Violence Prevention Policy – Mr. Sutphin announced that the California Division of Occupational Safety and Health (Cal/OSHA) mandates that all employers develop and implement a Workplace Violence prevention Plan by July 1, 2024. Mr. Sutphin provided a draft of CVWD’s “Workplace Violence Prevention Plan” (WVPP) to prevent acts of aggressive, threatening behavior and violence in the workplace. Staff will provide an update on the program at a subsequent meeting.

Following discussion:

It was moved by Director Bodnar, seconded by Director Johnson, and carried by a 4-0 roll call vote to adopt the Workplace Violence Prevention Plan.

AYES: **Director Bodnar**
 Director Johnson
 Director Raghavachary
 Director Valdez

ABSENT: **Director Erickson**

NOES: **None**

INFORMATION ITEMS – June 20, 2024, “Cities applaud CA Supreme Court striking Taxpayer Deception Act from November ballot”, “Postcard announcing that the Consumer Confidence Report/Annual Drinking Water Quality Report for 2023 is available” “Annual Water Quality Report – Reporting Year 2023”.

WRITTEN COMMUNICATIONS TO DISTRICT – Letter dated June 12, 2024 from 2755 Orange Ave., La Crescenta and response from General Manager James Lee.

GENERAL MANAGER – Mr. Lee reported that CVWD was represented at the Hometown Country Fair on June 22nd. Mr. Montes provided details of the Administrative & Finance Report for May 2024 and stated that file records retention/destruction has been completed. Mr. Lee introduced new employees hired in June - Carla Dillon, Katherine Lieu, Edgar Perez, and Shwetha Rao.

ATTORNEY REPORT – Mr. Bunn reported on the removal of the Taxpayer Protection Act ballot initiative from the ballot in the upcoming November general election.

REPORTS OF COMMITTEES

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

Finance Committee – Director Raghavachary reported that the Committee had not met. A meeting is scheduled for July 8, 2024.

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

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

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

Emergency Planning Committee – Director Bodnar reported that the Committee had not met. A meeting is scheduled for July 2, 2024.

Executive Committee – Director Raghavachary reported that the Committee had met on June 13, 2024. A meeting will be scheduled as needed.

Technology Committee – Mr. Lee reported that the Committee had not met; however, a meeting will be scheduled as needed.

Ad Hoc PFAS Committee – Director Raghavachary reported that the Committee had met on June 21, 2024. A meeting is scheduled for June 27, 2024.

DIRECTORS' ORAL REPORTS

Director Bodnar – Reported that he had completed a Workplace Violence Prevention Training course at his place of employment.

Director Erickson – No report

Director Johnson – No report

Director Raghavachary – Announced the “Leadership in Times of Climate Uncertainty ACWA Region Event Reception” will be held at the Brookside Country Club on August 21, 2024

Director Valdez – Reported that she attended the Hometown Country Fair on June 22, 2024.

BOARD MEMBERS REQUESTS FOR FUTURE AGENDA ITEMS

CLOSED SESSION – No reportable action

ADJOURNMENT

There being no other business to come before the Board, at 9:24 p.m., the meeting was adjourned to July 23, 2024, at 7:00 p.m.

APPROVED

Sharon S. Raghavachary
President

Arturo Montes
Board Secretary

CASH DISBURSEMENTS LIST

MAY 2024



<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
0		CalPERS	PERS Contributions - May 2024	30,891.87	9,490.76
0		Los Angeles County Public Works	Excavation permits - May 2024	3,434.00	
0		SCE	Power purchased - April 2024	18,361.00	6,120.40
0	5/2/2024	One Ring	Glenwood/Office - data communication - May 2024	1,350.00	
0	5/8/2024	Colonial Life	Employee paid insurance - April 2024	178.61	
0		BMO - Employee Credit Cards			
0		CVWD Account Payable	GWP, Spectrum, Dig Alert, working meals, ATT, Clark Pest Control	53,840.45	
0		Atwater, Patrick	ACWA Conference, hotel, virtual assistant, working meal	2,762.78	
0		Boyce, Kellen	Conference registration & travel expenses, forklift training	3,291.65	
0		Leddy, Pam	Employee recognition, board meeting, office supplies	2,122.18	
0		Lee, James	Employee development, staff events, working meals	1,393.79	
0		Montes, Arturo	Employee recognition, Amazon returns	4,999.61	
0		Mortenson, Siaki	Sheet metal & materials for sound blanket, Uniform shirts,	4,697.28	
0		Sargsyan, Armine	AWWA Seminar, office supplies	143.48	
0		Telles, Darlene	Road signs, building & office supplies, employee recognition, backhoe fork	2,758.96	
0		Yared, Brook	Conference accommodations, JCL traffic services	1,475.58	
47700	5/1/2024	A to Z Home Repair, Inc.	2234 Crescent - bee relocation	125.00	
47701	5/1/2024	ACC Ramco	Mixed bobtail - April 2024	40.04	
47702	5/1/2024	ACWA/JPIA	Workers Compensation Program - Jan. - March 2024	21,365.01	14,243.24
47703			*This check was voided		
47704	5/1/2024	Aqua - Metric Sales, Co.	CMEP Annual Support Renewal	477.41	159.13
47705	5/1/2024	Regino Avalos	Glenwood, Rosemont & Ordunio Reservoirs - clean-up, clear dead trees	5,015.00	
47706			*This check was voided		
47707	5/1/2024	B.L. Wallace Distributor, Inc.	Fiberlyte meter boxes - 50 ea. & 40 lids	10,790.89	
47708	5/1/2024	Costco	Misc. supplies - April 2024	1,175.00	391.66
47709	5/1/2024	City of Glendale	3341 Montrose - application for permit	2,961.00	
47710			*This check was voided		
47711			*This check was voided		
47712	5/1/2024	Dion & Sons, Inc	Diesel exhaust fluid purchased - April 2024	2,305.92	768.91

47713			*This check was voided		
47714	5/1/2024	Emins Air Conditioning & Heating	Office - replaced air filter, maintenance	150.00	50.00
47715			*This check was voided		
47716	5/1/2024	Grace Environmental Services	Nitrate plant maintenance - Jan./Feb./March 2024	731.46	
47717	5/1/2024	Hayes Automation, Inc.	Hach Chlorine , pH, controller services	14,964.94	
47718	5/1/2024	Highroad Information Technology	Misc. computer supplies - May 2024	115.91	38.63
47719	5/1/2024	J.A. Salazar Construction	2938 Mary - Install 1" water service & meter	13,071.18	
47720	5/1/2024	City of Los Angeles LA Sanitation	Sewerage facilities charges - O & M portion of ASSSC		460,968.00
47721	5/1/2024	Liebert Cassidy Whitmore	Legal services - April 2024	842.25	280.75
47722	5/1/2024	Lincoln Financial Group	Life & Disability Insurance - May 2024	1,706.25	977.41
47723	5/1/2024	Loeb & Loeb LLP	Environmental services advice - March 2024	2,700.00	
47724	5/1/2024	MCR Technologies, Inc.	Ramsdell Mixing Station - flow meter	1,569.20	
47725			*This check was voided		
47726	5/1/2024	Quadient Finance USA, Inc.	Postage machine funds	525.00	175.00
47727	5/1/2024	Regulatory Compliance Services, LLC	Regulatory Compliance services - March 2024	10,977.66	
47728	5/1/2024	Santa Fe Water Systems	Chemline valve	441.27	
47729	5/1/2024	Southland Pipe Corp.	Steel pipe 6" cml x cmc, 20' weld bell	44,676.00	
47730	5/1/2024	Tetra Tech, Inc.	E-1069 - Prepare design plans & specs	1,387.50	
47731	5/1/2024	Toro Enterprise, Inc.	E-1067 - Progress payment #3 - February 2024	209,651.62	
47732			*This check was voided		
47733	5/1/2024	Utility Services Associates, LLC	Waterline survey	29,631.45	
47734	5/1/2024	Vision Service Plan Co	Vision insurance - April 2024	321.30	142.80
47735	5/1/2024	Western Water Works	Stock - weld nozzle &, weld reducers	10,147.70	
47736	5/1/2024	Western Water Works	Stock - weld bell elbow, flanges, reducers, & elbows	10,291.80	
47737	5/1/2024	Western Water Works	Stock - 2" meter gaskets, blind flanges	2,131.20	
47738	5/1/2024	Western Water Works	Stock - Ring gaskets	1,125.00	
47739	5/1/2024	Western Water Works	Stock - weld flange, weld nozzle, ring gaskets	1,286.00	
47740	5/7/2024	Water Quality & Treatment Solutions, Inc.	Technical Support Services for Chloramine Implementation, Project	550.00	
47741	5/7/2024	Wayne Boyce	Reimbursement - mailing water samples, Wellness Reimbursement for FY 23	400.28	
47742			*This check was voided	133.62	
47743	5/8/2024	AALRR	Legal services - March 2024	3,284.67	1,094.89
47744	5/8/2024	City of Glendale Finance Department	Utility tax collected - Sept. thru April 2024	179,988.17	
47745	5/8/2024	DIY Home Center	Misc. supplies - April 2024	12.56	4.18
47746	5/8/2024	ACC Ramco	Mixed bobtail - April 2024	41.86	
47747	5/8/2024	ACWA/JPIA	Monthly benefits coverage - April 2024	23,068.51	9,992.81
47748	5/8/2024	ACWA/JPIA	Monthly benefits coverage - June 2024	22,111.79	14,669.82
47749	5/8/2024	ADS, LLC	Sewer flow monitoring - April 2024		1,187.00
47750	5/8/2024	Affordable Generator Services, Inc.	Scheduled maintenance of portable generators - March 2024	8,989.38	

47751	5/8/2024	Applied Technology Group, Inc.	E-939 - supplies - April 2024	22.50	7.50
47752	5/8/2024	ARC Document Solutions, LLC	Plotter supplies - April 2024	100.19	33.40
47753	5/8/2024	Armine Sargsyan	reimbursement - Esri Social Water Summit	70.95	23.65
47754	5/8/2024	BSK Associates	Water sampling - April 2024	14,234.76	
47755	5/8/2024	California Water Environment	CWEA annual membership renewal	221.00	
47756	5/8/2024	CCS Interactive, Inc.	Website design & build, monthly website hosting	1,983.75	661.25
47757	5/8/2024	Charter Communications	GPS core/phones/software - June 2024	87.81	29.27
47758	5/8/2024	City of Glendale	Rockhaven lease and water purchased - April 2024	11,056.06	
47759	5/8/2024	Crescenta Valley Publishing, LLC	Crescenta Valley Weekly ads	375.00	
47760	5/8/2024	Meredith Davis	Refund check - 3639 Honolulu	44.21	
47761	5/8/2024	DIY Home Center	Misc. supplies - April 2024	107.32	35.76
47762	5/8/2024	Dunn-Edwards Paint Corporation	Office - misc. painting supplies	239.73	79.91
47763	5/8/2024	Eurofins Eaton Analytical, Inc.	Water Quality testing - April 2024	700.00	
47764	5/8/2024	Foothill Municipal Water	Water purchased - April 2024	188,185.44	
47765	5/8/2024	Randy Foster	Refund check - 3147 Encinal	4.97	
47766	5/8/2024	General Pump Company, Inc.	E-1068 - Paschall Booster B	46,919.00	
47767	5/8/2024	Gsolutionz Professional Services	GPS core/phones/software - June 2024	290.35	96.78
47768	5/8/2024	Harrington Ind Plastics, LLC	Glenwood Nitrate Plant - solenoid valve	1,127.88	
47769			*This check was voided		
47770			*This check was voided		
47771	5/8/2024	InfoSend, Inc.	Printing & postage for billing - April 2024	3,357.47	1,119.16
47772	5/8/2024	Jay & J Janitorial Services	Janitorial services - April 2024	646.50	215.50
47773	5/8/2024	John Robinson Consulting, Inc.	M-965 - Professional services - April 2024	660.00	
47774	5/8/2024	Office Depot Business Credit	Misc. office supplies - April 2024	55.99	18.66
47775	5/8/2024	Paper Cuts, Inc.	Paper shredding services - May 2024	61.87	20.63
47776	5/8/2024	Proton Energy Systems, Inc.	Nitrate plant - 50 am contactor	648.14	
47777	5/8/2024	Public Water Agencies Group	Monthly PWAG assessment - April 2024	951.17	317.06
47778	5/8/2024	So Cal Compton Pipe Supply Co., Inc.	Stock - rebuild kits, gaskets, & o-rings	8,439.49	
47779	5/8/2024	South Coast Air Quality	Annual AQMD fee - July 2023 - June 2024	161.81	
47780	5/8/2024	Traffic Management Products, Inc.	Surface mount base & hardware	578.36	192.79
47781	5/8/2024	Ultra Welding, Inc.	Misc. welding - Ramsdell Mixing Station - hydrant #1 - 1906 Waltonia	2,175.00	
47782	5/8/2024	United Concordia Dental	Dental insurance - April 2024	2,318.32	820.88
47783	5/8/2024	Vulcan Materials Company	Mixed bobtail - April 2024	1,470.00	
47784	5/8/2024	Water Resources Economics	Consulting services - April 2024	1,627.50	542.50
47785	5/8/2024	Western Water Works	Stock - flange bolts ring gaskets, 4" tee	3,279.55	
47786	5/8/2024	Western Water Works	Stock - service brass	1,682.40	
47787	5/8/2024	Western Water Works	Stock - service brass	809.10	
47788	5/8/2024	Western Water Works	Stock - service brass, couplings reducer bushing	492.00	

47790	5/8/2024	AGI General Contracting	Reimbursement - 1.5" meter upgrade - 2200 Foothill Blvd.	1,030.41	
47791	5/8/2024	AVEVA	Annual service renewal	1,177.00	
47792	5/8/2024	Coastline Equipment Co.	Unit #15 - new tires	1,290.00	
47793	5/8/2024	Consolidated Electrical Distributors, Inc.	E-939 - SCADA equipment	1,486.02	
47794	5/8/2024	DIY Home Center	Misc. supplies - April 2024	868.80	289.60
47795	5/8/2024	Eurofins Eaton Analytical, Inc.	Water quality testing - April 2024	375.00	
47796	5/8/2024	Pep Boys, Fleet Services	Unit # 61 - oil change	73.13	
47797	5/8/2024	Traffic Management Products, Inc.	Road signs & stands	1,724.63	246.37
48550	5/9/2024	ACC Ramco	Mixed bobtail - April 2024	1,493.96	
48551	5/9/2024	AT&T	Voice communication - May 2024	794.92	264.97
48552	5/9/2024	ATS Communications	Telecommunications management - April 2024	492.19	164.06
48553	5/9/2024	Eurofins Eaton Analytical, Inc.	Water Quality testing - April 2024	750.00	
48554	5/9/2024	Kennedy Jenks	Consulting services - April 2024		3,808.75
48555	5/9/2024	Univar Solutions USA, Inc.	Sodium hypochloride - Glenwood (720 gals.) Mills (800 gals.)	2,578.92	
48556			*This check was voided		
48557	5/13/2024	Western Water Works	P. O. #7605 - remaining balance (taxes)	716.41	
48558	5/14/2024	A to Z Home Repair, Inc.	5504 Pine Cone - bee relocation	125.00	
48559	5/14/2024	ACC Ramco	Mixed bobtail - April 2024	1,020.00	
48560	5/14/2024	Karmen Aghakhani	Refund check - 3240 Montrose	172.00	
48561	5/14/2024	Airgas USA, LLC	Well #2 - carbon dioxide rental tank - April 2024	16.58	5.52
48562	5/14/2024	Artyom Aleksanyan	Refund check - 3313 Fairmount	4.73	
48563	5/14/2024	Aqua - Metric Sales, Co.	Annual RNI SAAS & analytics fee	16,535.68	
48564	5/14/2024	Regino Avalos	Markridge & Ocean View - windstorm damage, brush removal	4,675.00	
48565	5/14/2024	Michael Bierman	3010 Montrose #32 - claim payment to resident	900.00	
48566	5/14/2024	City of Glendale	3450 Altura - application for permit	1,974.00	
48567	5/14/2024	City of Glendale Water & Power	Power purchased - April 2024	510.15	
48568	5/14/2024	Clark Pest Control, Inc.	Pest control services - May 2024	138.00	46.00
48569	5/14/2024	Brad Close	Refund check - 3234 1/2 Foothill	73.32	
48570	5/14/2024	DIY Home Center	Misc. supplies - April 2024	228.92	76.31
48571	5/14/2024	Great America Leasing Corp.	Monthly copier leases - April 2024	2,160.01	720.00
48572	5/14/2024	Katz & Associates, Inc.	Advisory services - April 2024	308.44	102.81
48573	5/14/2024	Christine Kim	Refund check - 1941 Waltonia #305	73.43	
48574	5/14/2024	Lagerlof, LLP	Legal services - April 2024	18,057.75	6,019.25
48575	5/14/2024	Ashley Lim	Refund check - 3355 Alabama	73.32	
48576	5/14/2024	O'Reilly Auto Parts	Misc. supplies - April 2024	43.79	
48577	5/14/2024	Jakie Passerelle	Refund check - 2755 Sycamore	30.23	
48578	5/14/2024	Quadient Leasing USA, Inc.	Copier leases - June/July/August 2024	316.97	105.66
48579	5/14/2024	Jaime & Linda Valles	Refund check - 3236 Foothill	73.32	

48580	5/14/2024	Western Water Works	Stock - weld elbow, CMC xCML	3,757.83	
48581	5/14/2024	Sharon Raghavachary	ACWA Spring Conference - reimbursement	1,794.21	598.07
48582			*This check was voided		
48583	5/22/2024	Petty Cash	Reimburse petty cash	284.87	164.19
48584	5/23/2024	Western Water Works	Remaining tax balances - 6 invoices	3,836.74	
48585	5/23/2024	Advanced Centrifugal Systems, Inc.	Fierro Circle - labor	10,146.38	
48586	5/23/2024	Apex Manufacturing Solutions	E-939 - SCADA services - Q2	17,775.00	
48587	5/23/2024	Aqua - Metric Sales, Co.	2" meters - 5 each	10,536.34	
48588	5/23/2024	Best Best & Krieger	Legal services - April 2024	1,272.00	424.00
48589	5/23/2024	Boot Barn, Inc.	Hernandez - safety workboots	151.52	50.50
48590	5/23/2024	City of Glendale	3347 Montrose - application for permit	987.00	
48591	5/23/2024	Dispensing Technology Corp.	Misc. supplies - April 2024	643.65	
48592	5/23/2024	DIY Home Center	Misc. supplies - April 2024	759.05	253.02
48593	5/23/2024	Morgen Durose	Reimbursement - safety work boots	250.00	
48594	5/23/2024	Eurofins Eaton Analytical, Inc.	Water testing - April 2024	725.00	
48595	5/23/2024	Home Depot Credit Services	Misc. supplies - April 2023	157.57	
48596	5/23/2024	iPaySmart, Inc.	Payment services, credit card fees	3,111.23	1,037.08
48597	5/23/2024	J. Colon Coatings, Inc.	E-1066 - Goss Canyon #2 Reservoir, Monthly progress payment	301,930.53	
48598	5/23/2024	Christina Kopelman	Reimbursement - working lunch	23.70	
48599	5/23/2024	Koppl Pipeline Services, Inc.	3161 Hermosa, 2155 Glenada - test & hot tap	3,330.00	
48600	5/23/2024	LA Dept Water and Power	Power purchased - April 2024	47.56	
48601	5/23/2024	Pam Leddy	Reimbursement - Board room furniture, working meals	493.78	105.11
48602	5/23/2024	O'Reilly Auto Parts	Misc. supplies - April 2024	242.05	80.68
48603	5/23/2024	Paveco Construction, Inc.	Various paving locations - April 2024	16,744.45	
48604	5/23/2024	Quadient Finance USA, Inc.	Postage funds	525.00	175.00
48605			*This check was voided		
48606	5/23/2024	Red Wing Business Advantage	Mortenson - safety workboots	219.93	73.31
48607	5/23/2024	The Gas Company SoCal Gas	Office - gas purchased - May 2024	271.31	27.89
48608	5/23/2024	South Coast Air Quality	Annual AQMD fee - July 2023 thru June2024	323.62	
48609	5/23/2024	Stemar Equipment & Supply Co.	Tools & supplies - April 2024	10,930.29	
48610	5/23/2024	Sully-Miller Contracting Co.	Cold mix for temporary repairs - April 2024	6,840.08	
48611	5/23/2024	Toro Enterprise, Inc.	Montrose Ave. Project - Progress payment #4 - March 2024	193,295.55	
48612	5/23/2024	Univar Solutions USA, Inc.	Sodium hypochloride - Glenwood (670 gals.) Mills (500 gals.)	6,354.74	
48613	5/23/2024	Vulcan Materials Company	Mixed bobtail - April 2024	13,607.19	
48614			*This check was voided		
48615	5/29/2024	Regino Avalos	Monthly landscaping services @ 8 sites - May 2024	1,655.00	
48616	5/29/2024	Red Wing Business Advantage	Wood - safety work boots	219.93	73.31
48617	5/31/2024	CVWD Customer	Refund - Capital charge	194.06	

	1,743,966.82	539,881.55
Total Disbursements for May 2024		<u>2,283,848.37</u>

Payroll Report

Directors	4,500.00
Office Regular Payroll	140,563.00
Office OT	923.00
Plant Regular Payroll	101,673.00
Plant OT & Standby	29,366.00
Employer Payroll Taxes	20,986.00
Payroll Service Charges	<u>445.00</u>
Total Payroll for May 2024	<u>298,456.00</u>

CASH DISBURSEMENT LIST

June 2024



<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
0		Southern California Edison	Power purchased - June 2024	30,879.20	
0		Los Angeles County Public Works	Excavation permits - June 2024	3,633.00	
0	6/4/2024	Shell Oil	Gas purchased - May 2024	3,195.65	
0	6/7/2024	Colonial Life	Employee paid insurance - June 2024	178.61	
0	6/10/2024	AFLAC	Employee paid insurance - June 2024	2,028.24	
0	6/20/2024	Shell Oil	Gas purchased - May 2024	4,233.67	
		BMO - Employee Credit Cards			
		CVWD Account Payable	Dig Alert, CalPERS event, GWP, Spectrum, misc. supplies	47,437.14	
		Atwater, Patrick	Rosemont Preserve meeting, virtual assistant	951.92	
		Boyce, Kellen	Unit #66 service, Glenwood security monitor	389.67	
		Leddy, Pam	Employee Recognition, office supplies, board meeting	3,740.25	1,246.75
		Lee, James	CalPERS Conference x3, coaching, working meals	1,036.50	
		Montes, Arturo	BC Water jobs posting, updated PA system & microphones	329.72	
		Mortenson, Siaki	Pressure gauge, EZ up safety shade	383.64	
		Sargsyan, Armine	AWWA Seminars, postage	510.56	
		Telles, Darlene	Backhoe breaker bar, CalPERS registrations, unit #46 brakes & oil	13,999.39	
		Yared, Brook	AWWA Seminars	1,525.00	
48618	6/5/2024	HPS West, Inc.	6 ft. read pad	4,802.30	
48619	6/5/2024	ACC Ramco	Mixed bobtail - May 2024	1,260.00	
48620	6/5/2024	ACWA Joint Powers Ins Authority	Benefits coverage - June 2024	44,198.28	24,007.95
48621	6/5/2024	ADS, LLC	Meter maintenance/sampling data analysis - May 2024		1,187.00
48622	6/5/2024	Advanced Centrifugal Systems, Inc.	Upper Terrace - welding for pipeline installation	10,938.00	
48623	6/5/2024	American Reclamation, Inc.	Office - waste collection services - May 2024	154.35	51.45
48624	6/5/2024	Armine Sargsyan	Mileage reimbursement	12.06	
48625	6/5/2024	Regino Avalos	Monthly landscaping services @ 8 sites - May 2024	1,655.00	
48626	6/5/2024	Avetis Matsunyan	Wellness reimbursement - FY 23/24	300.00	
48627	6/5/2024	Jennifer Bautista	Wellness reimbursement - FY 23/24	161.62	53.88
48628	6/5/2024	Kellen Boyce	Reimbursement - dental/vision/healthcare	999.92	
48629	6/5/2024	California Data Collaborative	CADC - Annual membership renewal FY24/25	5,625.00	1,875.00
48630	6/5/2024	Charter Communications	Voice communications - May 2024	93.74	31.24
48631	6/5/2024	Chawkins Communications Consulting, Inc.	Communications consulting - May 2024	950.63	316.87

48632	6/5/2024	Costco	Misc. supplies - May 2024	287.85	95.95
48633	6/5/2024	City of Glendale	Rockhaven lease and water purchased - May 2024	11,402.00	
48634	6/5/2024	Crescenta Valley Publishing, LLC	Display ads - May 23 & 30, 2024	825.00	
48635			*This check was voided		
48636	6/5/2024	DIY Home Center	Misc. supplies - May 2024	11.93	3.98
48637	6/5/2024	EmbroidMe	Field hats & t-shirts - embroidery	864.50	1,041.73
48638	6/5/2024	Eurofins Eaton Analytical, Inc.	Water Quality testing - May 2024	425.00	
48639	6/5/2024	Foothill Municipal Water	Water purchased - May 2024	221,767.04	
48640	6/5/2024	David Gould	David Gould consulting - May 2024	5,625.00	1,875.00
48641	6/5/2024	Grainger	Misc. supplies - May 2024	227.08	75.68
48642	6/5/2024	Great America Leasing Corp.	Copier leases - April/May 2024	4,556.54	1,518.84
48643	6/5/2024	Gsolutionz Professional Services	GPS core/phones/software - July 2024	290.35	96.78
48644	6/5/2024	Haaker Equipment Company	Unit #33 - replace upper boom homes/hose ends/install new hose	2,237.92	
48645	6/5/2024	Highroad Information Technology	Maintenance, support, renewals, infrastructure - June 2024	9,737.25	3,245.75
48646	6/5/2024	Home Depot Credit Services	Misc. supplies - May 2024	157.57	
48647	6/5/2024	Jay & J Janitorial Services	Janitorial services - May 2024	646.50	215.50
48648	6/5/2024	Christina Kopelman	Kopelman - work safety boots	135.47	45.15
48649	6/5/2024	City of Los Angeles, LA Sanitation	O & M portion of assc - July 2023 to June 2024		460,968.00
48650	6/5/2024	Pam Leddy	Reimbursement - office supplies	1.76	0.59
48651	6/5/2024	Lincoln Financial Group	Life & Disability Insurance - June 2024	854.89	409.83
48652	6/5/2024	Arturo Montes	Reimbursement - dental/vision/healthcare	895.20	596.80
48653	6/5/2024	NBS	District admin. Services - March/April/May 2024	2,324.38	
48654	6/5/2024	New Motion Wellness, LLC	CVWD Wellness program - May/June/July 2024	487.50	162.50
48655	6/5/2024	Northern Safety Co., Inc.	Misc. safety supplies - May 2024	204.75	68.25
48656	6/5/2024	Agile Occupational Medicine	First aid kits	191.25	63.75
48657	6/5/2024	O'Reilly Auto Parts	Misc. supplies - May 2024	43.48	14.50
48658	6/5/2024	Paper Cuts, Inc.	Paper shredding services - May 2024	7.50	2.50
48659	6/5/2024	Paveco Construction, Inc.	E-1070 - paving - emergency pipeline blowout Rosemont	20,022.92	
48660	6/5/2024	Pep Boys, Fleet Services	Misc. supplies - May 2024	73.13	
48661	6/5/2024	PMC-STs, Inc.	Well #9 - Dessicant module replacement	4,468.52	
48662	6/5/2024	Red Wing Business Advantage	Escalara, Vadquez - safety workboots	570.80	
48663	6/5/2024	Jonathan Russo	Collection system Grade 2 renewal	77.25	25.75
48664	6/5/2024	Southwest Hydrotech	Glenwood, Goss Canyon, Ordunio - reservoir service	3,117.10	
48665	6/5/2024	Toro Enterprise, Inc.	E-1067 - Progress payment #4 - March 2024	209,651.62	
48666	6/5/2024	Ultra Welding, Inc.	E-977 - welding hydrant install - 1906 Waltonia	1,647.50	
48667	6/5/2024	UniFirst Corporation	Uniform cleaning service - May 2024	90.47	30.16
48668	6/5/2024	United Concordia Dental	Dental insurance - May 2024	2,318.32	820.88
48669	6/5/2024	Vulcan Materials Company	I-1076 - Mixed crushed base	5,976.41	
48670	6/5/2024	Water Resources Economics	Consulting services - May 20254	4,428.75	1,476.25

48671	6/5/2024	WCT Products Company	Misc. supplies - May 2024	489.85	
48672	6/5/2024	Robert Wood	Wellness reimbursement - FY 23/24	225.00	75.00
48673	6/5/2024	Brook Yared	Reimbursement - dental/vision healthcare	338.39	225.59
48674	6/5/2024	Pam Leddy	Reimbursement - employee recognition	262.70	87.55
48675	6/5/2024	UniFirst Corporation	Uniform cleaning service - May 2024	11.46	
48676	6/11/2024	ACC Ramco	Mixed bobtail - May 2024	1,995.00	
48677	6/11/2024	Airgas USA, LLC	Well #2 - csarbon dioxide rental tank - June 2024	16.88	5.62
48678	6/11/2024	Applied Technology Group, Inc.	E-939 - SCADA equipment	22.50	7.50
48679	6/11/2024	ARC Document Solutions, LLC	Plotter supplies - May 2024	83.57	27.85
48680	6/11/2024	AT&T Mobility	Voice communication - June 2024	391.03	130.34
48681	6/11/2024	B.L. Wallace Distributor, Inc.	Meter lids	650.76	
48682	6/11/2024	California Water Environment	Durose - CWEA Annual membership renewal	319.00	
48683	6/11/2024	City of Glendale	2759 Montrose - application for permit	987.00	
48684	6/11/2024	DIY Home Center	Misc. supplies - May 2024	875.19	291.73
48685	6/11/2024	State Water Resources Control Board	Ortega - D2 renewal	80.00	
48686	6/11/2024	Eurofins Eaton Analytical, Inc.	Water Quality testing - May 2024	650.00	
48687	6/11/2024	Highroad Information Technology	Computer supplies, microsoft copilot	2,828.56	942.85
48688	6/11/2024	InfoSend, Inc.	Printing & postage for billing - May 2024	2,339.40	779.80
48689	6/11/2024	LA County Tax Collector	Various CVWD properties - Property tax	8,852.56	2,950.85
48690	6/11/2024	City of Los Angeles, LA Sanitation	Sewer facilites charge - March/April 2024		10,357.47
48691	6/11/2024	Lagerlof, LLP	Legal services - May 2024	7,485.10	2,495.04
48692	6/11/2024	O'Reilly Auto Parts	Misc. supplies - May 2024	11.73	3.91
48693	6/11/2024	Public Water Agencies Group	Monthly PWAG assesment - May 2024	951.17	317.06
48694	6/11/2024	United Rentals	Solar message board	2,561.90	
48695	6/11/2024	Utility Cost Management, LLC	Water line survey - March 2024	852.33	284.11
48696	6/11/2024	Vulcan Materials Company	Finance charge	380.43	
48697	6/11/2024	Western Water Works	Stock - slip on weld flanges	191.84	
48698	6/11/2024	Western Water Works	Stock - coupling adapters, gate caps, clamps	9,874.91	
48699	6/11/2024	Western Water Works	Stock - rubber gaskets meter boxes, flanges, gaskets	6,188.50	
48700			*This check was voided		
48701			*This check was voided		
48702			*This check was voided		
48703	6/25/2024	ACC Ramco	Mixed bobtail - May 2024	7,050.00	
48704	6/25/2024	Apex Manufacturing Solutions	Ordunio Nitrate Skid Bypass Integration - May 2024	8,560.00	
48705	6/25/2024	Armine Sargsyan	Reimbursement - work pants	78.72	
48706	6/25/2024	Associated Soils Engineering	I-1076 - Laboratory soil testing services	2,175.00	
48707	6/25/2024	Best Best & Krieger	Legal services - May 2024	63.60	21.20
48708	6/25/2024	California Water Environment	Kopelman- Engineering Conference	215.00	
48709	6/25/2024	City of Glendale	4547 New York - application for permit	987.00	

48710	6/25/2024	Coastline Equipment Co.	Unit #15 - battery & water pump	3,032.66	1,010.89
48711	6/25/2024	Dairy Stop	Refund check - 2271 Foothill Blvd.		65.49
48712	6/25/2024	David Escalera	Reimbursement - work pants	91.56	30.52
48713	6/25/2024	Dion & Sons, Inc.	Diesel fuel purchased - April 2024	5,271.72	1,757.24
48714	6/25/2024	Eurofins Eaton Analytical, Inc.	Water Quality testing - May 2024	325.00	
48715	6/25/2024	Grainger	Reduced pressurte zone assembly, misc. stock supplies	10,663.31	938.86
48716	6/25/2024	Harper & Associates Eng., Inc.	E-1066 - Engineering services - May 2024	1,882.00	
48717	6/25/2024	Highroad Information Technology	Configure & installation of GIS	600.00	200.00
48718	6/25/2024	Jay & J Janitorial Services	Janitorial services - March 2024	646.50	215.50
48719	6/25/2024	Christina Kopelman	Reimbursent - mileage & parking AWWA	114.20	38.06
48720	6/25/2024	LA Dept Water and Power	Power purchased - May 2024	48.44	
48721	6/25/2024	New Resources Group, Inc.	Public outreach supplies	2,090.54	
48722	6/25/2024	O'Reilly Auto Parts	Misc. supplies - May 2024	34.49	11.49
48723	6/25/2024	Pep Boys, Fleet Services	Unit #62 - vehicle inspection	20.04	
48724	6/25/2024	Pump Check	Pump efficiency testing at 12 wells	13,530.00	
48725	6/25/2024	Red Wing Business Advantage	K. Boyce - safety workbooks	272.29	
48726	6/25/2024	So Cal Compton Pipe Supply Co., Inc.	Stock - 50 ea. 1" fittings, 30 ea. Meter adapters	11,520.93	
48727	6/25/2024	The Gas Company SoCal Gas	Office - gas purchased - May 2024	122.06	40.69
48728	6/25/2024	West Coast Pipe	Misc. supplies - May 2024	534.44	
48729	6/25/2024	Western Water Works	Stock - meter flansge adapters for 1.5" & 2" installations	6,271.32	
48730	6/27/2024	OpenGov, Inc.	SEMS - 811 integration	4,335.19	1,445.06
				832,706.33	526,381.53

Total Disbursements for June 2024

1,359,087.86

Payroll Report

Directors	4,375.00
Office Regular Payroll	148,065.00
Office OT	8,953.00
Plant Regular Payroll	110,958.00
Plant OT & Standby	21,978.00
Employer Payroll Taxes	22,534.00
Payroll Service Charges	465.00
Total Payroll for June 2024	\$ 317,328.00

Director Compensation Report

Jun-24



<u>Name</u>	<u>Date</u>	<u>Meeting/Event</u> *
Director Bodnar	6/10/2024	Special Meeting - Interviews
	6/11/2024	Board Meeting
	6/12/2024	Special Meeting - Interviews
	6/25/2024	Board Meeting

Director Erickson	6/10/2024	Special Meeting - Interviews
	6/11/2024	Board Meeting
	6/12/2024	Special Meeting - Interviews

Director Johnson	6/5/2024	Ad Hoc PFAS
	6/13/2024	Executive Committee
	6/10/2024	Special Meeting - Interviews
	6/11/2024	Board Meeting
	6/12/2024	Special Meeting - Interviews
	6/14/2024	PFAS Diligence (environmental consultant)
	6/17/2024	PFAS Diligence (environmental consultant)
	6/21/2024	Ad Hoc PFAS
	6/25/2024	Board Meeting
	6/27/2024	Ad Hoc PFAS

Director Raghavachary	6/5/2024	Ad Hoc PFAS
	6/10/2024	Special Meeting - Interviews
	6/12/2024	Special Meeting - Interviews
	6/13/2024	Executive Committee
	6/14/2024	PFAS Diligence (environmental consultant)
	6/17/2024	PFAS Diligence (environmental consultant)
	6/21/2024	Ad Hoc PFAS
	6/24/2024	Conference with GM
	6/25/2024	Board Meeting
	6/27/2024	Ad Hoc PFAS

Director Valdez	6/10/2024	Special Meeting - Interviews
	6/11/2024	Board Meeting
	6/12/2024	Special Meeting - Interviews
	6/25/2024	Board Meeting

* Compensation of \$125 per meeting

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 1
July 23, 2024

To: Honorable President and Members of the Board of Directors
From: Arturo Montes – Interim Director of Finance and Administration
Subject: **Water and Wastewater Rate Study**

ACTION ITEM:

Consideration and motion to authorize the General Manager to award a contract for the completion of a water budget-based rate study and wastewater rate study to Water Resources Economics (WRE) at a cost of \$112,460 and establish a contingency amount of 11,246 (10% of contract) to cover the cost of unforeseen or additional work.

BACKGROUND:

At the November 8, 2023 Board workshop, Sanjay Gaur of Water Resources Economics led a discussion about revisiting the District's current "inclining tiers" rate structure to address a number of topics including: 1) a mechanism to comply with the State's increasing and anticipated conservation mandates; 2) a variety of equity-based issues raised by the community over the years; and 3) collecting sufficient revenues on the fixed charge to reflect water/wastewater delivery as a "service". It was determined that a budget-based billing structure was the best fit for the District within the current landscape. Subsequently, the Board voted to defer a rate increase to provide time for staff to conduct a thorough rate study, including validating the District's billing system, and to provide the community extended messaging including a demonstration of value to customers.

DISCUSSION:

WRE has provided a proposal to the District with a two-phase approach to completing the rate study. Through Board workshops, WRE will identify appropriate Board policies to address water supply and regulatory requirements, financial resiliency, and equity concerns. These policies will shape the rate structure, including consideration for shifting the current fixed-to-variable ratio of water and wastewater charges. Phase I will focus on completing the following:

1. Water budget analysis;
2. Water and wastewater cost-of-service analysis; and
3. Water and wastewater rate design.

The proposed schedule anticipates completion of Phase I by the end of the calendar year. Phase II will incorporate the proposed FY 2026 budget into the rate design established in Phase I. Phase II will include:

1. Updating the analysis;
2. Developing rate study report;
3. Staff workshops;
4. Community outreach; and
5. Completion of the 218 process.

RECOMMENDATION

Authorize the General Manager to award a contract for the completion of a water budget-based rate study and wastewater rate study to Water Resources Economics (WRE) at a cost of \$112,460 and establish a contingency amount of 11,246 (10% of contract) to cover the cost of unforeseen or additional work.

Prepared and Submitted by:



Arturo Montes
Interim Director of Finance & Administration

Attachment(s):

1. Rate Study Presentation
2. Proposal for Water Budget-Based Rate Study and Wastewater Rate Study

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Crescenta Valley Water District

Water Budget-Based Rate Study & Wastewater Rate Study

Board Meeting

July 23, 2024



**Water Resources
Economics**

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

Agenda

- Policy Overview
- Rate Study Process
- Scope of Services
- Schedule
- Next Steps and Discussion

Policy Overview

- Challenges:
 - Uncertainty with water supply and regulatory requirements
 - Financial resiliency in reduced demand conditions and funding aging infrastructure
 - How to address equitability issues among different customers
- Policies discussed during November 8 Board Meeting to address District's challenges:
 - Water budget rate structure (Residential class)
 - How do we allocate water fairly?
 - Fixed charge revenue recovery
 - Is water a commodity or service?

Rate Study Process

1. **Policy framework:** Identify key policy objectives (revenue stability, customer affordability, conservation, etc.)
2. **Cost-of-service analysis:** Allocate the rate revenue requirement to customers based on proportional use of the water and wastewater system
3. **Rate design:** Identify appropriate rate structure changes and calculate proposed rates
4. **Documentation:** Develop a study report to provide transparency and defensibility

Proposition 218

- Applies to property-related fees for service including retail water and wastewater rates
 - Rates must be proportional to and may not exceed the cost of providing service
 - One customer class (residential, commercial, etc.) may not subsidize another customer class
 - Retail agencies typically conduct a “cost-of-service analysis” at least once every 5 years to ensure a sufficient nexus between rates and costs
- Procedural requirements:
 - Rates must be adopted at a public hearing
 - All customers must be mailed a public hearing notice no fewer than 45 days before the hearing
 - Rates may not be adopted if a majority of customers submit a formal protest

Scope of Services – Phase I

Goal of Phase 1: Determine which rate structure meets the goals and objective of the District; develop hypothetical rates utilizing the current budget for evaluation.

1. Water Budget Analysis
2. Water Cost-of-Service Analysis
3. Water Rate Design
4. Wastewater Cost-of-Service Analysis
5. Wastewater Rate Design
6. Board and Finance Committee Meetings (6 in-person meetings)

Scope of Services – Phase II

Goal of Phase 2: Based on direction during Phase I, update the analysis with 2025/2026 budget to determine the Proposition 218 Rates for Board approval.

1. Update Analysis with New Budget
2. Report Development
3. Virtual Staff Workshops (2 virtual meetings)
4. Community Outreach Workshops (2 in-person meetings)
5. Board and Finance Committee Meetings (6 in-person meetings)

Schedule

- ~~July 9 – Finance Committee Meeting to review and provide direction on rate study process and scope~~
- **July 23 – Board Member Review rate study process and scope**
- August – Board Workshop to present water budget analysis results
- September – Board workshop on how to enhance financial resiliency
- October – Board meeting to present results of Phase I of the rate study
- Spring 2025 – Update analysis and schedule community outreach workshops, Board meetings, and Finance Committee meetings



Water Resources Economics

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

Contact Information

Sanjay Gaur
Principal Consultant
sgaur@water-economics.com

Nancy Phan
Senior Consultant
nphan@water-economics.com

June 28, 2024

Arturo Montes
Finance and Administration Manager
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta-Montrose, CA 91214

Subject: Proposal for Water Budget-Based Rate Study and Wastewater Rate Study

Dear Mr. Montes,

Water Resources Economics, LLC (WRE) is pleased to submit this proposal to the Crescenta Valley Water District (District) for a Water Budget-Based Rate Study and Wastewater Rate Study.

WRE is well-qualified to provide this service. I have conducted hundreds of water and wastewater rate studies over the last 25 years throughout California and am an expert in developing rates that can withstand different financial and legal challenges.

I have also completed numerous water budget-based rate studies and understand the various technical, political, and regulatory standards associated with designing these rates and have assisted many similar agencies with successfully implementing rates that comply with Proposition 218 requirements.

It would be my pleasure to assist the District on this important project. If you have any questions, please contact me at 213-327-4405 or by email at sgaur@water-economics.com

Sincerely,



Sanjay Gaur
Principal Consultant
Water Resources Economics, LLC

Scope of Work

Phase 1

Task 1: Water Budget Analysis

WRE will develop a water budget analysis for the District's Residential customers. The purpose of a water budget is to evaluate the efficient use of water for each customer and will include an indoor water budget and an outdoor water budget. The analysis will include prior years' water usage for Residential customers, and it will evaluate the indoor and outdoor budgets of those customers. The indoor budget is typically based on efficient indoor use per capita, and the outdoor budget is typically based on efficient outdoor irrigation criteria (such as irrigable area, evapotranspiration data, etc.).

Meeting(s): 3 virtual meetings with District staff

Deliverable(s): Water budget analysis in Microsoft Excel

Task 2: Water Cost-of-Service Analysis

The cost-of-service analysis task provides the defensibility needed to meet Proposition 218 requirements. WRE will conduct a water cost-of-service analysis in accordance with industry standards and methodologies outlined in the *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* published by the American Water Works Association (AWWA). The water cost-of-service analysis will incorporate the results from the water budget analysis in Task 1.

The cost-of-service analysis will be utilized to allocate the water rate revenue requirements to "cost causation components" and then to the associated rates and charges. This ensures that water system costs are distributed equitably and that customers will be charged commensurate with the cost incurred by the District to provide water services, as required by Proposition 218.

Meeting(s): 2 virtual meetings with District staff

Deliverable(s): Water cost-of-service analysis in Microsoft Excel

Task 3: Water Rate Design

WRE will calculate rates based on the cost to serve each customer class derived in Task 2 and will incorporate the budget-based water rate structure developed in Task 1. We will develop a water

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

rate model in Microsoft Excel that incorporates industry standard rate-setting methodologies consistent with AWWA guidelines. We will also discuss the desired level of revenue recovery from fixed charges.

For this study, we assume that the District would like a budget-based rate structure for the Residential class and maintain a uniform rate structure for all other classes. WRE will also determine the potential financial impact on customers that will result from the proposed rate structures. The model will include a series of tables and figures that show projected rate impacts on different types of customers at various use levels.

Meeting(s): 3 virtual meetings with District staff

Deliverable(s): Water rate model in Microsoft Excel

Task 4: Wastewater Cost-of-Service Analysis

WRE will conduct a wastewater cost-of-service analysis in accordance with industry standards and methodologies outlined in the *Manual of Practice No. 27: Financing And Charges for Wastewater Systems, 4th Edition* published by the Water Environment Federation (WEF). The cost-of-service analysis is necessary to ensure a strong nexus between the costs incurred by the District's wastewater enterprise and the rates charged to customers for wastewater service.

The cost-of-service analysis will be utilized to allocate the wastewater rate revenue requirements to "cost causation components" and then to the associated rates and charges. This ensures that wastewater system costs are distributed equitably and that customers will be charged commensurate with the cost incurred by the District to provide wastewater services, as required by Proposition 218.

Meeting(s): 2 virtual meetings with District staff

Deliverable(s): Wastewater cost-of-service analysis in Microsoft Excel

Task 5: Wastewater Rate Design

The District's current wastewater rate structure consists of a bi-monthly service charge for Residential classes, a usage rate per units of winter water usage for Residential customers, a quantity charge for schools based on average daily attendance (ADA), and a usage rate based on prior-year average water use for Commercial customers with a minimum charge.

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

WRE will work with District staff to evaluate the current wastewater rate structure and identify potential rate structure alternatives based on the District's rate and policy objectives. We will develop an Excel-based rate model to calculate proposed wastewater rates based on the rate revenue requirement determination under both the current and alternative rate structure(s) selected for consideration.

The rate model will also include sample customer bill comparisons to evaluate the impact of the proposed wastewater rate changes on various types of customers. The sample bill calculations will illustrate the impacts to customers as a result of any changes to the budget and/or the cost-of-service analysis.

Meeting(s): 3 virtual meetings with District staff

Deliverable(s): Wastewater rate model in Microsoft Excel

Task 6: Board and Finance Committee Meetings

WRE will attend six in-person meetings with the District Board and/or Finance Committee and assist District staff with presenting the water and wastewater rate study process and results. We will prepare presentation materials for all meetings, which may include the preliminary results of the cost-of-service analyses, rate design processes, and proposed water and wastewater rates. Presentation materials for the Board and Finance Committee meetings will be provided to District staff prior to the meetings for review.

Meeting(s): 6 in-person meetings with District Board and/or Finance Committee

Deliverable(s): Presentation materials

Phase 2

Task 7: Update Analysis

At the start of Phase 2 of the study, WRE will update our analysis with the District's upcoming budget and any other relevant data that needs to be updated for a future year. The water cost-of-service, water rate design, wastewater cost-of-service, and wastewater rate design analyses will incorporate the updates to the District's financial and/or other data. We will present the updated analyses to District staff and identify the rate impacts based on the changes.

Meeting(s): 2 virtual meetings with District staff

Deliverable(s): Updated models in Microsoft Excel

Task 8: Report Development

The rate study report will serve as the District's administrative record to meet Proposition 218 requirements. An administrative record is a technical document that describes the assumptions, methodologies, results, cost allocations, and calculations that are used to develop the proposed water and wastewater rates. WRE's reports are highly detailed and provide a clear nexus between the costs of providing service to the District's customers and the rates that customers are charged for that service, which is a key requirement of Proposition 218.

WRE will draft a detailed rate study report that presents the proposed water and wastewater rate development process. The report will highlight the major issues and decisions reached during the rate study and will provide detailed explanations of any proposed rate and fee structure changes, and proposed water and wastewater rate calculations. District staff and legal counsel will review and provide input on the draft report, which WRE will incorporate into a final report version.

Meeting(s): 2 virtual meetings with District staff

Deliverable(s): Draft and final reports in Microsoft Word and PDF formats

Task 9: Virtual Staff Workshops

WRE will conduct two virtual workshops with District staff to review the preliminary results of the water and wastewater cost-of-service analyses, rate design processes, and proposed water and wastewater rates. These workshops will provide an opportunity for staff to provide feedback on the proposed rate structure changes and to learn more about the rate study process.

Meeting(s): 2 virtual workshops with District staff

Deliverable(s): Presentation materials

Task 10: Community Outreach Workshops

WRE will conduct two in-person community outreach workshops with the public to discuss the District's challenges and opportunities, policy objectives, proposed rate structure changes, and proposed customer impacts. These workshops will provide an opportunity for the District to proactively communicate the rate study changes with its customer base and for the public to ask questions about the process and impacts. We will prepare presentation materials for the community outreach workshops, which will be provided to District staff prior to the workshops for review.

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

Meeting(s): 2 in-person community outreach workshops

Deliverable(s): Presentation materials

Task 11: Board and Finance Committee Meetings

WRE will attend six in-person meetings with the District Board and/or Finance Committee and assist District staff with presenting the water and wastewater rate study process and results with the updated analysis. We will prepare presentation materials for the Board and Finance Committee meetings, which will be provided to District staff prior to the meetings for review.

WRE will attend an in-person Proposition 218 Public Hearing, during which the goal is for the District Board to adopt the proposed water and wastewater rates. WRE will prepare a presentation and assist District staff with presenting a summary of the water and wastewater rate study results. We will be available to answer any questions from the Board or the public that may arise during the meeting. In addition, WRE will provide guidance as requested on how to conduct and facilitate the Public Hearing based on best practices and past experiences with other agencies in California.

Meeting(s): 6 in-person meetings with District Board and/or Finance Committee

Deliverable(s): Presentation materials

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

Fees

WRE proposes to complete the proposed scope of work based on the fee table shown below, with a not-to-exceed value of \$112,460. WRE will invoice the District based on time and materials. The three individuals staffed on this project are Sanjay Gaur, the Project Manager with an hourly rate of \$290 per hour, and Nancy Phan and Charles Diamond, the Project Analysts with an hourly rate of \$200 per hour.

Project Tasks	Virtual Meetings	In-Person Meetings	PM Hours	Analyst Hours	Total Cost
Phase I					
Task 1: Water Budget Analysis	3	0	20	40	\$13,800
Task 2: Water Cost-of-Service Analysis	2	0	10	20	\$6,900
Task 3: Water Rate Design	3	0	16	20	\$8,640
Task 4: Wastewater Cost-of-Service Analysis	2	0	16	30	\$10,640
Task 5: Wastewater Rate Design	3	0	16	20	\$8,640
Task 6: Board and Finance Committee Meetings	0	6	54	12	\$18,060
Subtotal			132	142	\$66,680
Phase II					
Task 7: Update Analysis	2	0	10	16	\$6,100
Task 8: Report Development	2	0	16	45	\$13,640
Task 9: Virtual Staff Workshops	2	0	4	4	\$1,960
Task 10: Community Outreach Workshops	0	2	18	4	\$6,020
Task 11: Board and Finance Committee Meetings	0	6	54	12	\$18,060
Subtotal			102	81	\$45,780
Total			234	223	\$112,460

Resumes

Resume – Sanjay Gaur, Principal Consultant

TECHNICAL SPECIALTIES

- Financial analysis
- Cost of service studies
- Conservation rate structure design
- Connection fee studies
- Public outreach
- Proposition 218 rates

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Principal Consultant (2021-present)
- **Raftelis Financial Consultants, Inc.**, Vice President (2015-2021); Senior Manager (2012-2014); Manager (2009-2012)
- **Red Oak Consulting**, Division of Malcolm Pirnie (2007-2009)
- **MuniFinancial** (2005-2006)
- **A & N Technical Services**, (1999–2003)
- **United States Peace Corps**, Bulgaria (1995-1997)

EDUCATION

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

PROJECT EXPERIENCE

- **Alameda County Water District (CA)** - Sustainability Plan, Water Rate Study, Financial Plan Study and Annual Updates, and Basin Management Evaluation
- **City of Callexico (CA)** - Water and Sewer Conservation Tiered Rate Feasibility Analysis, Drought Rate Study, Water Cost of Service and Rate Study, and other Ad-hoc Support
- **City of Camarillo (CA)** - Water and Wastewater Rate Study, Financial Plan Study, and Cost of Service Study
- **City of Buckeye (AZ)** – Water Rate Study and Capacity fee
- **Carpinteria Sanitary District (CA)** – Sewer Rate and Fee Study
- **Amador Water District (CA)** – Water and Wastewater Rate Study
- **Castaic Lake Water Agency (CA)** – Wholesale Water Rate Study, Drought Rates, Rate Analysis, and Facility Capacity Fees
- **American Water Company (CA)** - Water Rate Study
- **Borrego Water District (CA)** – Financial Planning Study, Groundwater
- **Central Basin Municipal Water District (CA)** – Financial Plan

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

- **City of Chino** (CA) – Water Budget Rate Design, Financial Plan Study and Cost of Service and Rate Design
- **City of Chowchilla** (CA) – Water and Wastewater Rate Study
- **Coastside County Water District** (CA) – Water Rate Study
- **Contra Costa Water District** (CA) – Financial Plan Study, Water Rate Study and Drought Rates Study
- **City of Corona** (CA) – Water Budget Rate Study, Wastewater Capacity Fees Study
- **Cucamonga Valley Water District** (CA) – Financial Plan, Water Conservation Rate Study, and Drought Rates
- **East Bay Municipal Utility District** (CA) – Water and Wastewater Cost of Service and Rate Study
- **Eastern Municipal Water District** (CA) – Water Budget Study and Financial Plan Study
- **East Orange County Water District** (CA) - Water Budget Study, Sewer Capacity Fees Study, and Financial Plan Study
- **Elsinore Valley Municipal Water District** (CA) – Financial Model, Drought Rate Analysis, Water and Recycled Water Rate Study, Capacity Fee Study, and Wastewater Rate Study
- **El Toro Water District** (CA) – Water Budget Study and Recycled Water Financial Plan Study
- **City of Escondido** (CA) – Water and Wastewater Rate Study and Capacity Fees Study
- **Fallbrook Public Utilities District** (CA) – Water, Wastewater and Recycled Water Rate Study
- **City of Florence** (AZ) – Water and Wastewater Rate Study
- **City of Gilbert** (AZ) – Fire Financial Plan
- **City of Glendora** (CA) – Water Budget Feasibility Study
- **City of Gridley** (CA) – Water Rate Study
- **Helix Water District** (CA) – Water Rate and Cost of Service Study
- **Hi-Desert Water District** (CA) – Water Rate Study
- **City of Hollister** (CA) - Sewer Rate and Impact Fee Study, Water Rates Study, and Capacity Fee Study
- **City of Huntington Beach** (CA) - Sewer Rate Study, Water Budget Rate Study, and Financial Plan Study
- **Imperial County Gateway County Service Area** (CA) – Water and Wastewater Rate Study
- **Indio Water Authority** (CA) - User Fee Study and Water Rate Study
- **Inland Empire Utilities Agency** (CA) – Conservation Rate Structure Workshop and Financial Plan Study
- **Inyo County Water Department** (CA) – Water Rate Study
- **Irvine Ranch Water District** (CA) - Conservation Study
- **Jurupa Community Services District** (CA) – Water Budget Study
- **La Habra Heights County Water District** (CA) – Wheeling Rate Study and Financial Plan Study
- **La Puente Valley County Water District** (CA) – Water Rate and Fee Study
- **Las Virgenes Municipal Water District** (CA) – Water Budget Rate Study, Water, RW and WW Financial Plan and Rate Studies, Capacity Fees Study
- **City of Livermore** (CA) – Water Cost of Service Study
- **City of Livingston** (CA) - Water Rate Study
- **City of Lomita** (CA) - Water Rate Workshop

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

- **City of Long Beach (CA)** - Water, Recycled Water and Wastewater Financial Plan and Rate Studies
- **Los Alamos Community Services District (CA)** – Water and Wastewater Rate Study
- **Los Angeles Department of Water and Power (CA)** - Daily Demand Estimates
- **City of Lynwood (CA)** - Cost Allocation Plan
- **City of Malibu (CA)** – Wastewater and Recycled Water Rate Study
- **Mammoth Community Water District (CA)** – Water Rate Study
- **City of Merced (CA)** - Water and Sewer Rate and Impact Fee Study
- **Mesa Consolidated Water District (CA)** – Financial Plan Study, Cost Comparison Study, Water and Recycled Water Cost of Service and Rate Design Study
- **Metropolitan Water District of Southern California (CA)** – Drought Allocation Model, Long Range Financial Plan, and Cost of Service Evaluation
- **Mill Valley - Tamalpais Community Services District (CA)** – Financial Plan Study
- **Mojave Water Agency (CA)** – Financial Plan Study, Financial Impact Analysis for Water Exchange and Leasing Programs and Water Reliability Rate Development
- **Modesto Irrigation District (CA)** – Stormwater Fee Study
- **Monterey Peninsula Water Management District (CA)** - Water Budget Study
- **Municipal Water District of Orange County (CA)** - Conservation Potential Study and Rate Study
- **City of Newport Beach (CA)** – Water Rate Study
- **City of Palo Alto (CA)** – Water Cost of Service and Rate Study
- **Pasadena Water and Power (CA)** - Water Cost of Service and Rate Design Study
- **Placer County Water Agency (CA)** – Cost of Service, Rate, and Financial Plan Study
- **City of Pomona (CA)** – Rate Study
- **City of Port Hueneme (CA)** - Water and Solid Waste Rate Study
- **City of Orange (CA)** – Water and Sanitation Rate Study
- **Rancho California Water District (CA)** – Water Budget Rate Study, Water Demand Offset Fees, Commercial Water Budget Revision Study, Alternative Water Supply Feasibility Analysis
- **City of Reno (NV)** – Wastewater Rate Study
- **City of Rio Vista (CA)** - Water and Sewer Rate and Impact Fee Study
- **Rubidoux Community Services District (CA)** – Rate Advisor
- **Salton Community Services District (CA)** – Sewer Rate Study
- **San Benito County Water District (CA)** – Water Rate Study
- **City of San Clemente (CA)** – Water and Wastewater Rate Study
- **San Diego County Water Authority (CA)** - Indexing Model and Wholesale Water Rate
- **San Geronimo Pass Water Agency (CA)** – Long Range Strategic Financial Plan
- **City of San Juan Capistrano (CA)** – Water Rate Study
- **Santa Clara Valley Water District (CA)** - Project Evaluation - Water Conservation Project
- **Santa Clarita Water District (CA)** – Retail Water Rate Study
- **City of Santa Cruz (CA)** - Financial Plan, Water Budget Feasibility Analysis, Cost of

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

- Service and Rate Study, Drought Rate Study, Capacity Fees Update and Water Demand Offset Fees Analysis, and Alternative Water Supply Feasibility Analysis
- **Scotts Valley Water District** (CA) – Water and Recycled Water Rate Study
- **City of Shasta Lake** (CA) – Water Rate Study and Water and Wastewater Capacity Fee Study
- **City of Sierra Madre** (CA) – Water and Sewer Rate Study
- **City of Signal Hill** (CA) – Water Rate and Cost of Service Study
- **City of Simi Valley** (CA) – Sewer Rate Study
- **Soquel Creek Water District** (CA) – Water Rate Structure Study
- **South Coast Water District** (CA) – Water Budget Assessment
- **South Mesa Water Company** (CA) – Rate Structure and Recycled Water Rate Study
- **City of South Gate** (CA) - Water Impact Fee
- **Sunnyslope County Water District** (CA) – Water Rates and Capacity Fees
- **Temescal Valley Water District** (CA) – Water and Sewer Rate Study and Capacity Fee Study
- **Trabuco Canyon Water District** (CA) – Water Rate Study
- **City of Thousand Oaks** (CA) – Water and Wastewater Cost of Service and Financial Plan Study
- **City of Ventura** (CA) – Water and Wastewater Rate Study
- **City of Vista** (CA) - Sewer Rate and Connection Fee Study
- **Walnut Valley Water District** (CA) - Water Rate Study
- **City of Watsonville** (CA) – Utility Enterprise Rate Study
- **Western Municipal Water District** (CA) - Financial Plan, Capacity Fees, and Water Budget Rate Studies
- **Yorba Linda Water District** (CA) - Sewer and Water Budget Rate Study, Financial Plan Study, and Cost of Service Rate Study
- **Zone 7 Water Agency** (CA) – Cost of Service Study and Water Rate Study Update

PUBLICATIONS

- Wittern, M., Gaur, S., “**Protecting Against Water Rate Challenges with the Equivalent of Bear Spray,**” *Journal – American Water Works Association*, March 2022, Volume 114, Issue 2
- Harmon, K., Mukherjee, M., Gaur, S., Atwater D., “**Evaluating Water Saving from Budget-Based Tiered Rates in Orange County, California,**” *Water Economics and Policy*, 2021, Volume 07, No. 2, 2150007
- Gaur, S., Smith, V., Kostiuk, K., “**Mandates and Messaging: How Californians Responded to the State’s Historic Drought,**” *Journal – American Water Works Association*, March 2019, Volume 111, Number 3.
- Gaur, S., Magu, D. “**California Water Rate Trends: Maintaining Affordable Rates in a Volatile Environment,**” *Journal – American Water Works Association*, September 2017, Volume 109, Number 9.

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

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

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

Resume – Nancy Phan, Senior Consultant

TECHNICAL SPECIALTIES

- Excel-based financial models
- Cost of service studies
- Water and wastewater rate design
- Technical report writing
- Proposition 218 rates
- Data analysis

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Senior Consultant (2023-present)
- **Raftelis Financial Consultants, Inc.**, Manager (2022-2023); Senior Consultant (2020-2021); Consultant (2018-2019); Associate Consultant (2016-2017)

EDUCATION

- Bachelor of Arts, Business Economics - University of California, Irvine (2015)

PROJECT EXPERIENCE

- **Amador Water Agency** (CA) – Water and Wastewater Cost of Service and Rate Study, Water Capacity Fees
- **Antelope Valley East Kern Water Agency** (CA) – Water Cost of Service and Rate Study Update
- **Carpinteria Valley Water District** (CA) – Water Cost of Service and Rate Study, Water Cost of Service and Rate Study Update
- **Central Contra Costa Sanitation District** (CA) – Wastewater Cost of Service and Rate Study Update, Capacity Fee Calculation
- **Coastside County Water District** (CA) – Water Cost of Service and Rate Study and Updates, Water Shortage Rate Study and Updates
- **Contra Costa Water District** (CA) – Treated and Untreated Water Cost of Service and Rate Study
- **City of Corona** (CA) – Water Cost of Service and Rate Study
- **City of Covina** (CA) – Water Cost of Service and Rate Study
- **City of Escondido** (CA) – Water Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study
- **City of Hayward** (CA) – Water Rate Study and Update, Wastewater Rate Study, Water and Sewer Connection Fees, Water Drought Rates
- **King County Wastewater Treatment Division** (WA) – Wastewater Financial Model and Rate Design
- **City of La Habra** (CA) – Water Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study
- **City of La Habra Heights** (CA) – Water Cost of Service and Rate Study
- **Madera County** (CA) – Groundwater Sustainability Agency Rate Study, Groundwater Sustainability Agency Rate Study Update
- **Marin Municipal Water District** (CA) – Water Cost of Service and Rate Study, Water Financial Plan Update
- **Montecito Water District** (CA) – Water Cost of Service and Rate Study

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

- **City of Monterey Park (CA)** – Water Cost of Service and Rate Study
- **City of Ontario (CA)** – Water and Recycled Water Cost of Service and Rate Study and Update, Wastewater Cost of Service and Rate Study and Update
- **City of Oxnard (CA)** – Water Cost of Service and Rate Study
- **City of Palo Alto (CA)** – Drought Rate Study Update, On-Call Financial Services
- **City of Pasadena (CA)** – Water Cost of Service and Rate Study
- **City of Pleasanton (CA)** – Water, Recycled Water, and Wastewater Cost of Service and Rate Study and Update
- **City of Pomona (CA)** – Water Cost of Service and Rate Study
- **City of Port Hueneme (CA)** – Water Cost of Service and Rate Study
- **Rainbow Municipal Water District (CA)** – Wastewater Cost of Service and Rate Study
- **City of Redlands (CA)** – Water, Wastewater, and Non-Potable Water Cost of Service and Rate Study
- **City of Reno (NV)** – Stormwater Financial Plan and Rate Design
- **City of San Gabriel (CA)** – Wastewater Property Tax Roll, Wastewater Property Tax Roll Update
- **City of Santa Cruz (CA)** – Water Cost of Service and Rate Study, Connection Fee Study, Wheeling Charge Calculation
- **City of Santa Fe Springs (CA)** – Water Cost of Service and Rate Study
- **Seattle Public Utilities (WA)** – Drainage and Wastewater Financial Model, Water Financial Model, Solid Waste Financial Model
- **Selma-Kingsburg-Fowler County Sanitation District (CA)** – Wastewater Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study Update
- **Soquel Creek Water District (CA)** – Alternative Water Rate Design Evaluation
- **City of South Pasadena (CA)** – Water Cost of Service and Rate Study
- **Stanford University (CA)** – Water and Sewer Rate Analysis, Comprehensive Benchmarking Study
- **City of Tacoma (WA)** – Wastewater Rate Study, Solid Waste Rate Study, Solid Waste Rate Study
- **City of Torrance (CA)** – Water Cost of Service and Rate Study
- **Vallejo Flood and Wastewater District (CA)** – Wastewater Cost of Service and Rate Study Update, Property Tax Roll Update
- **Valley Water / Santa Clarita Valley Water District (CA)** – Recycled Water Cost Allocation Evaluation
- **County of Ventura (CA)** – Water Rate Studies (for four Waterworks Districts)
- **Walnut Valley Water District (CA)** – Domestic and Recycled Water Cost of Service and Rate Study
- **West Basin Municipal Water District (CA)** – Wholesale Drinking Water Rate Analysis
- **Zone 7 Water Agency (CA)** – Wholesale Treated Rate Study and Updates, Wholesale Untreated Rate Study and Updates

PUBLICATIONS

- Armstrong, J., Harmon, K., Phan, N., “**The Power of Data to Improve Water Use Efficiency and Conservation,**” *Journal AWWA*, June 2017, Volume 109, No. 6.

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

Resume - Charles Diamond, Senior Consultant

TECHNICAL SPECIALTIES

- Long-term financial plans
- Cost of service studies
- Rate design
- Capacity fee studies
- Excel-based financial models
- Data analysis

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Senior Consultant (2023-present)
- **Raftelis Financial Consultants, Inc.**, Manager (2023); Senior Consultant (2021-2022); Consultant (2019-2020); Associate Consultant (2017-2018)
- **The Nature Conservancy**, Science & Stewardship Practitioner (2013-2015)

EDUCATION

- Master of Environmental Science and Management – Water Resources Management, Bren School of Environmental Science & Management – University of California, Santa Barbara (2017)
- Bachelor of Science, Environmental Economics and Policy - University of California, Berkeley (2013)

PROJECT EXPERIENCE

- **Alameda County Water District (CA)** - Financial Plan Study, Conservation Tiered Rate Feasibility Analysis,
- **Antelope Valley-East Kern Water Agency (CA)** – Annual Water Rate Update Studies
- **Antelope Valley State Water Contractors Association (CA)** – Replacement Water Assessment Study
- **Borrego Water District (CA)** – Water Rate Affordability Assessment
- **City of Brentwood (CA)** – Water and Wastewater Rate Study
- **City of Burbank (CA)** - Water Rate Study
- **Cucamonga Valley Water District (CA)** – Financial Plan, Water Conservation Rate Study, and Drought Rates
- **City of Dixon (CA)** – Water Rate Study
- **City of El Monte (CA)** – Water Rate Study, Water Cost Allocation Plan Study
- **Goleta Water District (CA)** – Water Rate Study
- **City of Huntington Beach (CA)** – Water Rate Study
- **Inyo County Water Department (CA)** – Water Rate Study
- **Jurupa Community Services District (CA)** – Inland Empire Brine Line Rate Study
- **La Cañada Irrigation District (CA) (CA)** – Water Rate Study
- **Las Virgenes Municipal Water District (CA)** –Water, RW, and WW Financial Plan and Rate Studies
- **City of Lincoln (CA)** – Water Rate Study
- **City of Long Beach (CA)** - Water, Recycled Water, and Wastewater Financial Plan, Water and Wastewater Rate Survey
- **Marin Municipal Water District (CA)** –

Water Budget-Based Rate Study and Wastewater Rate Study

Crescenta Valley Water District

- Miscellaneous Fee Study
- **Mojave Water Agency (CA)** – Financial Impact Analysis for Water Exchange and Leasing Programs
- **Municipal Water District of Orange County (CA)** – Core Service Charge Allocation Study
- **National Water and Sewerage Authority of Grenada** (Eastern Caribbean) – Water and Sewer Rate Study
- **Olivenhain Municipal Water District (CA)** – Water Rate Study, Water Pass-Through Rate Annual Updates
- **Placer County Water Agency (CA)** – Cost of Service, Rate, and Financial Plan Study, Water Connection Charge Study
- **Rancho California Water District (CA)** – Water Capacity Fee Study, Water Rate Study
- **Sacramento Suburban Water District (CA)** – Water Rate Study
- **San Francisco Public Utilities Commission (CA)** – Water and Wastewater Rate Study
- **Santa Ana Watershed Project Authority (CA)** – Inland Empire Brine Line Rate Model, Inland Empire Brine Line Reserve Policy Study
- **Santa Clarita Valley Water Agency (CA)** – Water Capacity Fee Study
- **Santa Rosa Plain, Sonoma Valley, & Petaluma Valley Groundwater Sustainability Agencies (CA)** - Groundwater Sustainability Agency Fee Analysis and Rate Setting Services
- **Scotts Valley Water District (CA)** – Water and Recycled Water Rate Study
- **South Mesa Water Company (CA)** – Water Rate Study and Connection Fee Update
- **City of Simi Valley/Ventura County Waterworks District No. 8 (CA)** - Water Rate Study
- **City of Sonoma (CA)** – Water Rate Study
- **City of Thousand Oaks (CA)** – Water and Wastewater Cost of Service and Financial Plan Studies
- **City of Ventura (CA)** – Water and Wastewater Rate Study, Water and Wastewater Annual Financial Plan Updates, Water Net Zero Fee Study
- **Victor Valley Wastewater Reclamation Authority (CA)** - Sewer Rate and Connection Fee Study
- **City of Watsonville (CA)** – Utility Enterprise Rate Study

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2
July 23, 2024

To: Honorable President and Members of the Board of Directors
From: Arturo Montes – Interim Director of Finance & Administration
Subject: Rules and Regulations Updates

ACTION ITEM:

Consideration and possible motion to adopt changes to the District's Rules and Regulations Section 8.03 The Bill Assistance Program, Appendix E: Rates and Charges for Water Service, Appendix H: Rates and Charges for Sewer Service, and the Bill Assistance Program form

DISCUSSION:

At the July 9, 2024 Finance Committee meeting, staff identified sections of the District's Rules and Regulations that require updating to reflect previous Board direction. A summary of the changes to the Rules and Regulations include:

1. Section 8.03: The Bill Assistance Program - update income tables to reflect current Federal guidelines in Section 8.03 and the associated program form.
2. Appendix E: Rates and Charges for Water Service - remove columns for FY 22 and FY 23 rates and include a column for FY 25 rates at 0% increase.
3. Appendix H: Rates and Charges for Sewer Service - remove columns for FY 22 and FY 23 rates and include column for FY 25 rates at 0% increase.

The committee directed staff to present the changes to the full Board. Enclosed for reference is a redlined version of the suggested edits to the Retention Policy for the Board to review

RECOMMENDATION

Adopt changes to the District's Rules and Regulations Section 8.03 The Bill Assistance Program, Appendix E: Rates and Charges for Water Service, Appendix H: Rates and Charges for Sewer Service, and the Bill Assistance Program form.

Prepared and Submitted by:



Arturo Montes
Interim Director of Finance & Administration

Attachment(s):

1. Appendix E: Rates and Charges for Water Service
2. Appendix H: Rates and Charges for Sewer Service
3. Section 8.03: Bill Assistance Program
4. Bill Assistance Program form

APPENDIX E
CRESCENTA VALLEY WATER DISTRICT
RATES AND CHARGES FOR WATER
SERVICE

CRESCENTA VALLEY WATER DISTRICT

APPENDIX E

RATES AND CHARGES FOR WATER SERVICE

Quantity rate charge for single family residential usage: Quantity charges are applicable to all water consumption in addition to the bi-monthly service charge. The rates charged by the District for water consumption, per 1,000 gallons (Unit) of water consumed per bi-monthly billing period, are as follows:

	Effective	7/1/2023	7/1/2024
Tier I	1-10 Units	\$5.96	\$5.96
Tier II	11-26 Units	\$11.09	\$11.09
Tier III	27 Units and above	\$15.63	\$15.63

Quantity rate charge for multi-family units, commercial, institutions, & schools usage: The rates charged by the District for water consumption, per 1,000 gallons (Unit) of water consumed per bi-monthly billing period, are as follows:

	Effective	7/1/2023	7/1/2024
Base Rate		\$9.45	\$9.45

Quantity rate charge for irrigation usage: The rates charged by the District for water consumption, per 1,000 gallons (Unit) of water consumed per bi-monthly billing period, are as follows:

	Effective	7/1/2023	7/1/2024
Tier I	1-80 Units	\$6.30	\$6.30
Tier II	81 Units and above	\$11.88	\$11.88

Service Charge: The bi-monthly service charge is a fixed charge per meter size and does not provide for any minimum water consumption allowance are as follows:

Within District

Meter Size	Effective 7/1/2023	Effective 7/1/2024
¾"	\$68.12	\$68.12
1"	\$100.75	\$100.75
1 ½"	\$182.34	\$182.34
2"	\$280.26	\$280.26
3"	\$590.31	\$590.31
4"	\$1047.24	\$1047.24

Minimum Monthly Charge for Temporary Service per Article 9.02:

\$35.00

One-Time Service Charge for Temporary Service per Article 9.02:

\$25.00

Private Fire Protection Charge: The bi-monthly service charge for fire protection services per meter size and does not provide for any minimum water consumption allowance are as follows:

Meter Size	Effective 7/1/2023	Effective 7/1/2024
1"	\$21.18	\$21.18
2"	\$31.69	\$31.69
3"	\$55.55	\$55.55
4"	\$96.74	\$96.74
6"	\$244.50	\$244.50
8"	\$499.39	\$499.39
10"	\$882.78	\$882.78

Glendale Utility Administration Fee – Effective 1/1/2011, for customers within the City of Glendale - \$0.40 per bi-monthly bill.

WATER SYSTEM CONNECTION FEE:

1. The basic fee is **\$7,250** per equivalent dwelling unit for fiscal year **2024/2025**. On July first of each year, the fee shall be revised according to the following equation.

$$\text{Fee} = \frac{\text{BV} + \text{CIP}_5}{\Sigma \text{EDU}}$$

Where: Fee = Current year's connection fee per equivalent dwelling unit.

BV = Current value of all District water system property and equipment minus the depreciation of water system assets as published in the District's independently audited financial statements.

CIP₅ = The average annual cost of water system projects in the District's most recent Capital Improvement Program attributed to the need for increased water system capacity multiplied by 5 years.

Σ EDU = The sum of equivalent dwelling units in the District's water system as calculated at the end of the prior year based on the meter conversion method in the November 2003 report entitled "Establishment of a New Water System Connection Fee Structure for Crescenta Valley Water District".

2. **Exception:** For the installation of a new fire service line, where no other construction is proposed, the water system connection fee shall only include the CIP component as follows:

$$\text{Fee} = \text{CIP}_5 / \Sigma \text{EDU}$$

APPENDIX H

CRESCENTA VALLEY WATER DISTRICT

**RATES AND CHARGES FOR SEWER
SERVICE**

CRESCENTA VALLEY WATER DISTRICT

APPENDIX H

RATES AND CHARGES FOR SEWER SERVICE

Service Charge: Each user of the District's sewer system shall pay a bimonthly sewer service charge and usage charge by customer class as follows:

Customer Class

Single Family Residence:

Bimonthly Fee

Effective	7/1/2023	7/1/2024
Bimonthly Sewer Service Charge	\$58.59	\$58.59
Bimonthly Sewer Flow Rate Charge per Unit of water based upon prior year winter water usage with a minimum of 8 units (for new accounts until winter water use can be established) up to a maximum of 20 units (1 Unit = 1,000 gallons)	\$2.50	\$2.50

Winter water usage: Based upon the prior year February or March billing period for the property and will be revised each year prior to July 1st for the next 12-month cycle of bills.

Multiple Family Residence:

Effective	7/1/2023	7/1/2024
Bimonthly Sewer Service Charge per Equivalent Dwelling Unit (EDU)	\$34.51	\$34.51
Bimonthly Sewer Flow Rate Charge per unit of water based upon prior year winter water usage with a maximum of 15 units per EDU	\$2.77	\$2.77

Winter water usage: Based upon total water consumption divided by the number of EDUs at the property for prior year February or March billing period and will be revised each year prior to July 1st for the next 12-month cycle of bills.

Commercial/Institutional:

Effective	7/1/2023	7/1/2024
Bimonthly Minimum Charge per Account	\$34.51	\$34.51
Bimonthly Sewer Flow Rate Charge per unit of water based upon prior year winter water usage with a maximum of 15 units per EDU	\$6.40	\$6.40

Schools

Effective	7/1/2023	7/1/2024
<u>Elementary School:</u> Bimonthly Quantity Charge per 100 Average Daily Attendance (ADA)	\$106.40	\$106.40
<u>Middle School:</u> Bimonthly Quantity Charge per 100 ADA	\$212.79	\$212.79
<u>High School:</u> Bimonthly Quantity Charge per 100 ADA	\$319.16	\$319.16

Sewer Connection Surcharge: \$500.00 per equivalent dwelling unit for each sewer lateral connection outside of District boundaries. Surcharge is applicable to all such connections approved after January 1, 2001.

Sewer Connection Permit Fee: \$1,000.00

Standby Charge: \$8 per Account per month

SEWER SERVICE CONNECTION CHARGE:

1. **CVWD Component:** The basic charge is \$1,400 per equivalent dwelling unit for calendar year 1995. On ~~July~~January first of each year the preceding year's charges shall be escalated according to the following equations:

$$C = \frac{(P_T \times 1.04) + P_X}{D_T}$$

Where:	C =	Current year's connection charge (new charge) per equivalent dwelling unit
	P _T =	Total cumulative District capital contributions to City of Los Angeles system exactly one-year prior (basis of \$11,594,387 on January 1, 1995)
	P _X =	Prior year's District capital contributions to City of Los Angeles system
	D _T =	Total cumulative equivalent Dwelling units connected to District sewer system to date
	1.04	Represents 6 percent inflation less 2 percent depreciation

C = \$2,470 per equivalent dwelling unit for fiscal year 2024/25

2. **City of Los Angeles Component**

Amalgamated System Sewerage Facilities Charge (ASSFC) based on the following calculation from the City of L.A. Bureau of Sanitation plus 10% administration charge; adjusted annually.

$$ASSFC = (FCR \times \Delta F) + (CCR \times \Delta F \times D) + (BODCR \times \Delta BOD_5) + (SSCR \times \Delta SS)$$

Where:	FCR =	Flow Charge Rate, \$/mgd
	CCR =	Conveyance Charge Rate, \$/mgd-miles
	BODCR =	BOD Charge Rate, \$/ppd SS
	SSCR =	SS Charge Rate, \$/ppd
	F =	Flow, mgd
	D =	Flow-weighted average centroidal distance, miles
	BOD ₅ =	Biochemical Oxygen Demand (5-day), ppd
	SS =	Suspended Solids, ppd
	Δ =	Net change in designated constituent from previous to proposed land use
	Mgd =	Millions gallons per day
	ppd =	Pounds per day

Also: Flow, BOD, SS values are based upon City of Los Angeles' table of Sewage Generation Factors for various developed land uses.

Charge Rates are based upon values published by City of Los Angeles Bureau of Sanitation and vary annually with Bureau expenses and capital outlay.

Bill Assistance Program: A residential customer of the District who resides on the property and who is the named account holder on the records of the District may be eligible for a 25 percent discount on the combined bill for water, wastewater and/or wastewater standby charges.

1. The customer must meet either of the following conditions, which are modeled after Southern California Edison's CARE program to qualify for the Bill Assistance Program.

a. The customer or any dependent member of the household receives benefits from any of the following programs (must provide proof)

- Bureau of Indian Affairs General Assistance
- CalFresh (Food Stamps)
- CalWORKs (TANF)/ Tribal TANF
- Head Start Income Eligible (Tribal Only)
- CARE Program (Gas Company)
- Low Income Home Energy Assistance Program (LIFEAP)
- Medi-Cal/Medicaid
- Medi-Cal for Families
- National School Lunch Program
- California Lifeline (Phone Company)
- Supplemental Security Income (SSI)
- Women, Infants & Children (WIC)

b. Total income for all members in the household meets the guidelines listed below. "Income" means all income received in the prior calendar year, including but not limited to social security, interest income, salaries, wages, pensions, rents, commissions, and capital gains. Proof of total household income includes federal and state income tax returns for the prior year, or if no tax return was filed, other proof of total household income satisfactory to the District.

Household Size	Income Eligibility Upper Limit
1-2	\$51,150 49,300
3	\$64,550 62,150
4	\$78,000 75,000
5	\$91,450 87,850
6	\$104,900 100,700
7	\$118,350 113,550
8	\$131,800 126,400
Each Additional Person	\$13,450 12,850

* Information is based on federal poverty guidelines and updated annually on July 1.

2. The discount becomes effective for the first full billing period following approval of an application in a form prescribed by the District. Applicants must sign the form under penalty of perjury and must furnish proof of eligibility as listed above.
3. Decisions on any questions concerning eligibility for the discount shall be made by the General Manager. Applicants shall have the right to appeal adverse determinations to the Board of Directors. Appeals shall be in writing and delivered to the District within 10 days following the General Manager's decision.
4. Once an application is approved, the Customer shall receive the eligible discount on future bills as long as the Customer continues to be eligible. The 25 percent discount applies to wastewater charges, all service charges, and the first 26 billing units of water per billing cycle. Usage over 26 billing units of water per billing cycle will be billed at standard rate. It shall be the duty of the Customer to advise the District if the Customer becomes ineligible for the discount. The Customer must reapply for the discount every two years to retain eligibility.
5. This program may be modified without prior notice. When the program is modified, current program recipients will remain eligible until the time of their recertification. During the recertification process, the customer's eligibility will be based on current requirements at the time of recertification.
6. This program is on a first-come-first-serve basis limited to annual budgeted funding.
 - a. When funding limits have been reached, applicants will be placed on a waiting list based on the order in which applications were received. If the program is closed due to funding limits, current members will be notified of recertification requirements and due dates. If a customer does not recertify within the allotted time, they will need to reapply and join the waiting list.



CVWD BILL ASSISTANCE PROGRAM

For Fiscal Year 2024-25

☐ First Time Applicant ☐ Reapply (required every 2 years)

1. CUSTOMER INFORMATION

Account Name:

Address:

Email Address:

CVWD Account Number:

Daytime Contact Name:

Phone: ()

2. OTHER RESIDENTS LIVING IN THE HOME

Name:

Age:

Name:

Age:

Name:

Age:

Name:

Age:

Name:

Age:

3. PUBLIC ASSISTANCE PROGRAMS BENEFITS RECEIVED

If you or one of your dependents receives benefits from any of the programs listed below, please check the box and **provide a current** copy of your **Verification of Benefits Letter or other proof** of enrollment for programs checked. If you checked one of the boxes below, Skip section 4 & 5 and go to Section 6.

☐ Medi-Cal/Medicaid

☐ Medi-Cal for Families

☐ CalFresh (Food Stamps)

☐ WIC

☐ CalWORKs (TANF)

☐ CARE Program (SoCalGas)

☐ Bureau of Indian Affairs G.A.

☐ LIHEAP

☐ SSI

☐ California Lifeline (phone)

☐ National School Lunch Program (NSLP)

If NONE of the above apply to you, please complete section 4 below.

4. SOURCE OF INCOME (Skip if you completed Section 3)

Please check the appropriate box for all sources of income for all persons in your household and **provide copies of current documents** for all sources checked below. Read page 2 for more information.

☐ SSA, SSP, SSDI

☐ Wages or Salaries

☐ Interest, Dividends, Annuities

☐ Pensions

☐ Unemployment Benefits

☐ Rental or Royalty Income

☐ Family Support

☐ Workers Compensation

☐ Profit and Loss Statement

☐ Spousal or Child Support

☐ Scholarships, Grants

☐ Cash or other income

5. HOUSEHOLD INCOME (Please fill in the total household income)

The total number of persons in my family/household, including myself is:

The total gross annual household income is:

\$

INCOME ELIGIBILITY GUIDELINES

Number of Household Members	Maximum Gross Annual Income
1-2	\$51,150 \$49,300
3	\$64,550 \$62,150
4	\$78,000 \$75,000

6. DECLARATION (Please read and sign below)

I certify under penalty of perjury that the information I have provided is true and correct. I agree to inform CVWD within 30 days if I no longer qualify to receive the discount. I understand that if I received this discount without qualifying for it, I may be required to pay back the discount I received.

CVWD CUSTOMER SIGNATURE

Date

CVWD BILL ASSISTANCE INFORMATION SHEET

CVWD 's Bill Assistance Program provides low-income households a 25 percent discount on the combined bill for water (up to 26 billing units of water), wastewater and/or wastewater standby charges. There are two ways to qualify for the discount: If you receive any of the Public Assistance Programs listed in the application or if your total income for all persons in your household meets the income eligibility guidelines chart. The discount will be applied once your completed and signed application is approved by CVWD. Please allow at least 30 days for processing your application.

CONDITIONS FOR PARTICIPATING

- Name on CVWD account must match the name on this application and must be a full time household resident.
- You must not be claimed as a dependent on another person's income tax return.
- You must re-certify when requested.
- You must reapply and provide Verification of Benefits Letter each time you move.
- You must provide current documentation or your application will not be processed.

CURRENT SOURCE OF INCOME & PUBLIC ASSISTANCE INFORMATION

Provide copy of your **current Verification of Benefits Letter** for Medi-cal, CalFresh, CalWORKs (TANF). These forms are available from the Department of Public Social Services (DPSS) at (818)701-8200.

WIC- Provide current verification of WIC Participation letter.

CARE Program (SoCalGas) - Provide copy of current first page of gas bill that shows Care Program discount.

California Lifeline (Telephone) - Provide current first page of California Lifeline bill that shows the discount.

Medi-Cal for Families - Provide a current Medi-Cal statement.

LIHEAP - Provide current approval letter for the program.

National School Lunch Program (NSLP) - Provide current document showing your enrollment in the program.

SSI and/or SSA - Provide a document showing your current monthly benefit amount with current address from the Social Security Administration. You can request the letter by contacting Social Security Office at (800) 772-1213.

Pension, Annuity, Scholarship, Grant, Rental or Royalty Income- Provide current copy of your statement.

Wages or Salaries - Provide most recent four consecutive pay stubs. You may provide a letter from your employer stating your monthly gross income. We can also accept tax returns/forms and bank statements.

Unemployment Benefits - Provide a copy of the first page of the unemployment letter from the Employment Development Department (EDD).

Zero Income - Provide Verification of Benefits Letter indicating zero income from the Department of Public Social Services(DPSS). If you are over the age of fifty, please contact the Social Security Office to obtain a Zero Income letter.

Cash and other income - Provide a letter from your employer stating your current monthly gross income if you receive cash.

This program may be modified without prior notice. When the program is modified, current program recipients will remain eligible until the time of their recertification. During the recertification process, the customer's eligibility will be based on current requirements at the time of recertification.

This program is on a first-come-first-serve basis limited to annual budgeted funding. When funding limits have been reached, applicants will be placed on a waiting list based on the order in which applications were received.

Please email application and copies of supporting documents to customerservice@CVWD.com or mail to:

Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214
(818) 248-3925
www.cvwd.com

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 3
July 23, 2024

To: Honorable President and Members of the Board of Directors
From: Arturo Montes – Interim Director of Finance & Administration
Subject: Adoption of FY 2024-25 Pay Schedule for CalPERS Compliance

ACTION ITEM:

Consideration and motion to adopt the current pay schedule.

BACKGROUND:

The California Code of Regulations Section 570.5 requires pay schedules to be approved and adopted by the Board of Directors on an annual basis. The pay schedules must be publicly available and include position, pay rate, and time basis for the pay rate.

The District's Memorandum of Understanding (MOU) and Terms & Conditions with its employees determine the annual cost of living adjustments. The current agreements, effective from July 1, 2022, to June 30, 2025, include a three percent adjustment for fiscal year 2024-25. This adjustment will be reflected in the July 16, 2024 payroll.

The pay schedule is accounted for in the approved budget for FY 2024-25, and a copy of the schedule is enclosed. Over the past year, the Board approved several job descriptions, all of which are included in the attached schedule.

RECOMMENDATION

Approve the District's pay schedule for FY 2024-25.

Prepared and Submitted by:



Arturo Montes
Interim Director of Finance & Administration

Attachment(s):

1. FY 2024-25 Pay Schedule



Crescenta Valley Water District **Pay Schedule (Monthly)**

Effective 7/1/2024 to 6/30/2025

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	MAX
ACCOUNTING CLERK	\$4,923	\$5,046	\$5,172	\$5,301	\$5,434	\$5,570	\$5,709	\$5,852	\$5,998	\$6,148	\$6,302	\$6,617
ADMINISTRATIVE ASSISTANT	\$4,990	\$5,115	\$5,243	\$5,374	\$5,508	\$5,646	\$5,787	\$5,932	\$6,080	\$6,232	\$6,388	\$6,707
ASSISTANT ENGINEER	\$6,632	\$6,798	\$6,968	\$7,142	\$7,321	\$7,504	\$7,692	\$7,884	\$8,081	\$8,283	\$8,490	\$8,915
ASSOCIATE ENGINEER	\$8,098	\$8,300	\$8,508	\$8,721	\$8,939	\$9,162	\$9,391	\$9,626	\$9,867	\$10,114	\$10,367	\$10,885
CONSTRUCTION SUPERVISOR	\$7,087	\$7,264	\$7,446	\$7,632	\$7,823	\$8,019	\$8,219	\$8,424	\$8,635	\$8,851	\$9,072	\$9,526
CUSTOMER SERVICE CLERK	\$4,186	\$4,291	\$4,398	\$4,508	\$4,621	\$4,737	\$4,855	\$4,976	\$5,100	\$5,228	\$5,359	\$5,627
CUSTOMER SERVICE & ADMIN GENERALIST	\$5,382	\$5,517	\$5,655	\$5,796	\$5,941	\$6,090	\$6,242	\$6,398	\$6,558	\$6,722	\$6,890	\$7,235
CUSTOMER SERVICE LEAD	\$5,814	\$5,959	\$6,108	\$6,261	\$6,418	\$6,578	\$6,742	\$6,911	\$7,084	\$7,261	\$7,443	\$7,815
CUSTOMER SERVICE SUPERVISOR	\$6,261	\$6,418	\$6,578	\$6,742	\$6,911	\$7,084	\$7,261	\$7,443	\$7,629	\$7,820	\$8,016	\$8,417
CUST SERVICE FIELD REP / BACKFLOW INS	\$5,526	\$5,664	\$5,806	\$5,951	\$6,100	\$6,253	\$6,409	\$6,569	\$6,733	\$6,901	\$7,074	\$7,428
CUST SERVICE & INSPECTION FIELD REP	\$6,079	\$6,231	\$6,387	\$6,547	\$6,711	\$6,879	\$7,051	\$7,227	\$7,408	\$7,593	\$7,783	\$8,172
ELECTRICAL/TELEMETRY	\$7,818	\$8,013	\$8,213	\$8,418	\$8,628	\$8,844	\$9,065	\$9,292	\$9,524	\$9,762	\$10,006	\$10,506
SR. INSPECTION & DESIGN SPECIALIST	\$7,980	\$8,180	\$8,385	\$8,595	\$8,810	\$9,030	\$9,256	\$9,487	\$9,724	\$9,967	\$10,216	\$10,727
METER READER	\$4,623	\$4,739	\$4,857	\$4,978	\$5,102	\$5,230	\$5,361	\$5,495	\$5,632	\$5,773	\$5,917	\$6,213
OPERATIONS & MAINT. WORKER I	\$4,976	\$5,100	\$5,228	\$5,359	\$5,493	\$5,630	\$5,771	\$5,915	\$6,063	\$6,215	\$6,370	\$6,689
OPERATIONS & MAINT. WORKER II	\$5,539	\$5,677	\$5,819	\$5,964	\$6,113	\$6,266	\$6,423	\$6,584	\$6,749	\$6,918	\$7,091	\$7,446
OPERATIONS & MAINT. WORKER III	\$5,814	\$5,959	\$6,108	\$6,261	\$6,418	\$6,578	\$6,742	\$6,911	\$7,084	\$7,261	\$7,443	\$7,815
OPERATIONS & MAINT. WORKER IV	\$6,395	\$6,555	\$6,719	\$6,887	\$7,059	\$7,235	\$7,416	\$7,601	\$7,791	\$7,986	\$8,186	\$8,595
OPERATIONS & TELEMTRY TECH. I	\$5,324	\$5,457	\$5,593	\$5,733	\$5,876	\$6,023	\$6,174	\$6,328	\$6,486	\$6,648	\$6,814	\$7,155
OPERATIONS COORDINATOR I	\$5,539	\$5,677	\$5,819	\$5,964	\$6,113	\$6,266	\$6,423	\$6,584	\$6,749	\$6,918	\$7,091	\$7,446
OPERATIONS COORDINATOR II	\$6,092	\$6,244	\$6,400	\$6,560	\$6,724	\$6,892	\$7,064	\$7,241	\$7,422	\$7,608	\$7,798	\$8,188
PLANT MAINTENANCE SPEC	\$6,412	\$6,572	\$6,736	\$6,904	\$7,077	\$7,254	\$7,435	\$7,621	\$7,812	\$8,007	\$8,207	\$8,617
PROJECT COORDINATOR	\$5,876	\$6,023	\$6,174	\$6,328	\$6,486	\$6,648	\$6,814	\$6,984	\$7,159	\$7,338	\$7,521	\$7,897
PUBLIC AFFAIRS & CONSERVATION SPECIALIST	\$6,489	\$6,651	\$6,817	\$6,987	\$7,162	\$7,341	\$7,525	\$7,713	\$7,906	\$8,104	\$8,307	\$8,722
PUBLIC AFFAIRS & CONSERVATION SR. SPECIALIST	\$7,203	\$7,383	\$7,568	\$7,757	\$7,951	\$8,150	\$8,354	\$8,563	\$8,777	\$8,996	\$9,221	\$9,682
REGULATORY & PUBLIC AFFAIRS SPECIALIST	\$6,489	\$6,651	\$6,817	\$6,987	\$7,162	\$7,341	\$7,525	\$7,713	\$7,906	\$8,104	\$8,307	\$8,722
SENIOR ENG TECHNICIAN	\$7,143	\$7,322	\$7,505	\$7,693	\$7,885	\$8,082	\$8,284	\$8,491	\$8,703	\$8,921	\$9,144	\$9,601
SYSTEM OPERATOR I	\$6,226	\$6,382	\$6,542	\$6,706	\$6,874	\$7,046	\$7,222	\$7,403	\$7,588	\$7,778	\$7,972	\$8,371
SYSTEM OPERATOR II	\$6,537	\$6,700	\$6,868	\$7,040	\$7,216	\$7,396	\$7,581	\$7,771	\$7,965	\$8,164	\$8,368	\$8,786
WATER CONSERVATION SPECIALIST	\$4,990	\$5,115	\$5,243	\$5,374	\$5,508	\$5,646	\$5,787	\$5,932	\$6,080	\$6,232	\$6,388	\$6,707
WATER QUALITY & RESOURCES SPECIALIST	\$6,489	\$6,651	\$6,817	\$6,987	\$7,162	\$7,341	\$7,525	\$7,713	\$7,906	\$8,104	\$8,307	\$8,722
WATER QUALITY & RESOURCES SR. SPECIALIST	\$7,203	\$7,383	\$7,568	\$7,757	\$7,951	\$8,150	\$8,354	\$8,563	\$8,777	\$8,996	\$9,221	\$9,682

	MIN	MAX
ANALYST	\$4,559	\$6,916
SENIOR MANAGEMENT ANALYST	\$6,610	\$9,613
ASSOCIATE MANAGER	\$7,687	\$10,300
SENIOR ENGINEER	\$8,754	\$12,159
MANAGER	\$9,630	\$13,374
DIRECTOR OF ENGINEERING & OPERATIONS	\$12,218	\$18,106
DIRECTOR OF FINANCE & ADMINISTRATION	\$12,508	\$18,358
GENERAL MANAGER		\$22,856

CV WEEKLY ON THE MOVE



The Erickson family took CV Weekly along with them to their annual family trip to Carpinteria.

CV Weekly loves to travel! Take us along on your next trip and send us a photo.

You may find yourselves on the pages of the community's favorite newspaper.

OPINION

This piece expresses the views of its author(s), separate from those of this publication.

Mathews: A stormwater project makes too much sense

Joe Mathews Zócalo Public Square

Published 8:38 a.m. PT July 18, 2024

The Verdugo Wash is a flood-control channel that starts rain water on a 35-mile journey from the foothills above L.A. to the Pacific Ocean.

When you visit the wash, you can see the massive chasm between rhetoric and reality in California water.

Since 2017, the Crescenta Valley Water District has pursued the sort of project that California water officials say they want.

Crescenta Valley, which serves 35,000 people in mostly unincorporated neighborhoods between Glendale and La Cañada-Flintridge, wants to capture ocean-bound rainwater from the Verdugo Wash and use it to recharge local groundwater supplies. Verdugo Wash doesn't carry much water, but capturing some of it

would provide one-sixth of the small district's water supply for the small district.

Stormwater capture and groundwater recharge are pillars of the new State Water Plan and the California Department of Water Resources' "Go Golden" initiative to support local water infrastructure. Los Angeles County also has a new Water Plan that emphasizes local collaborations on "sustainable water resources."

The state, county, and neighboring local governments have been supporters of the Verdugo Wash project.

Unfortunately, the Los Angeles Department of Water and Power stands in the way.

LADWP talks big about its own stormwater capture projects. But it maintains, citing a mid-1970s court decision, that all rain that runs into the L.A. River belongs to L.A., including the stormwater that ends up in Verdugo Wash.

So, LADWP is blocking the Crescenta Valley project, because it fears the precedent of giving up any rain water.

Maintaining that it owns the Verdugo Wash water, LADWP insists that Crescenta Valley, a smaller agency with limited resources, must replace any stormwater it captures by purchasing water for LADWP from other sources. In email correspondence with the Crescenta Valley Weekly newspaper, DWP suggested that

Crescenta Valley buy the water from the Metropolitan Water District.

That means Crescenta Valley would effectively be taking water from the Colorado River, which is drying up under pressure from Western states, to replace water it merely seeks to recycle from its own Verdugo Wash.

Meanwhile, LADWP's promised "self-sufficiency" has it seeking to quadruple the amount of water it draws from the Owens Valley in the Eastern Sierras. That move has drawn protests from environmentalists across the state.

"It's the there-it-is-take-it mentality," says the Crescenta Valley Water District staffer Patrick Atwater. That's a reference to the famously short speech given by L.A.'s civil engineer William Mulholland at the 1913 opening of the Los Angeles Aqueduct.

Atwater met me at a section of Verdugo Wash where much of the infrastructure would be built, at Crescenta Valley Community Regional Park, to discuss the \$3.3 million project.

The project would set up two flexible barriers on the wash, one near the dog park and the other near a baseball field. The dams could be inflated when it's raining to capture some of the flow (the rest would still go to the river and the ocean).

Much of the cost of the project would come from building new pipe to take the captured stormwater to the District's groundwater production wells about a mile away. Every gallon of water collected would be a gallon of water that didn't have to come from the Colorado River, or another stressed water source. Capturing stormwater is cheaper than buying imported water, which is becoming more expensive.

"It's obvious that this is what the future of water should look like," says James Lee, general manager of Crescenta Valley Water District. "It's what everyone is telling us to do."

Lee says the technology is not novel. If it wasn't being blocked by L.A. water rights, permitting should happen quickly. But the project is unlikely to be built until water policy in Los Angeles, and in California, catches up with reality.

Joe Mathews writes the Connecting California column for Zócalo Public Square.

CVWD will be having its next [quarterly office hours](#) on July 25th at 6 PM at the La Crescenta Library. The focal presentation will be on water quality. Register [here](#).



CRESCENTA VALLEY WATER DISTRICT

ANNUAL WATER QUALITY REPORT 2023



CRESCENTA VALLEY
WATER DISTRICT
GLENWOOD PLANT

CVWD's 2023 annual water quality report is now available on www.cvwd.com and for pick up at the CVWD Main Office. The report is a snapshot of all water quality testing performed between January 1 and December 31, 2023.

Our constant goal is to provide you with a safe and dependable supply of drinking water. For any questions or comments, please contact us at the number below.

 2700 Foothill Blvd
La Crescenta, CA 91214

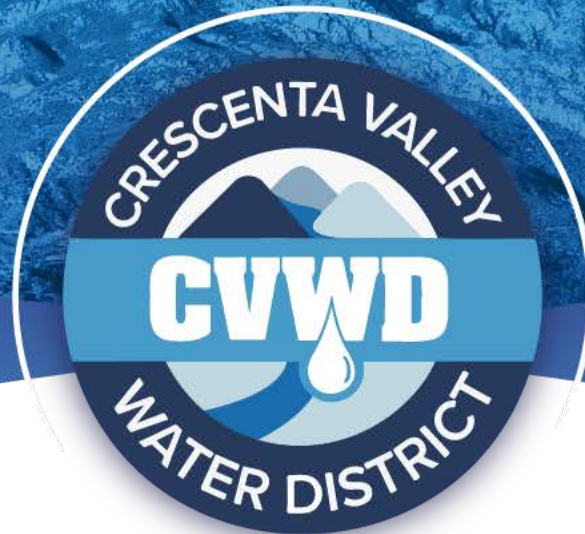
 818-248-3925

 www.cvwd.com

[Download Document](#)



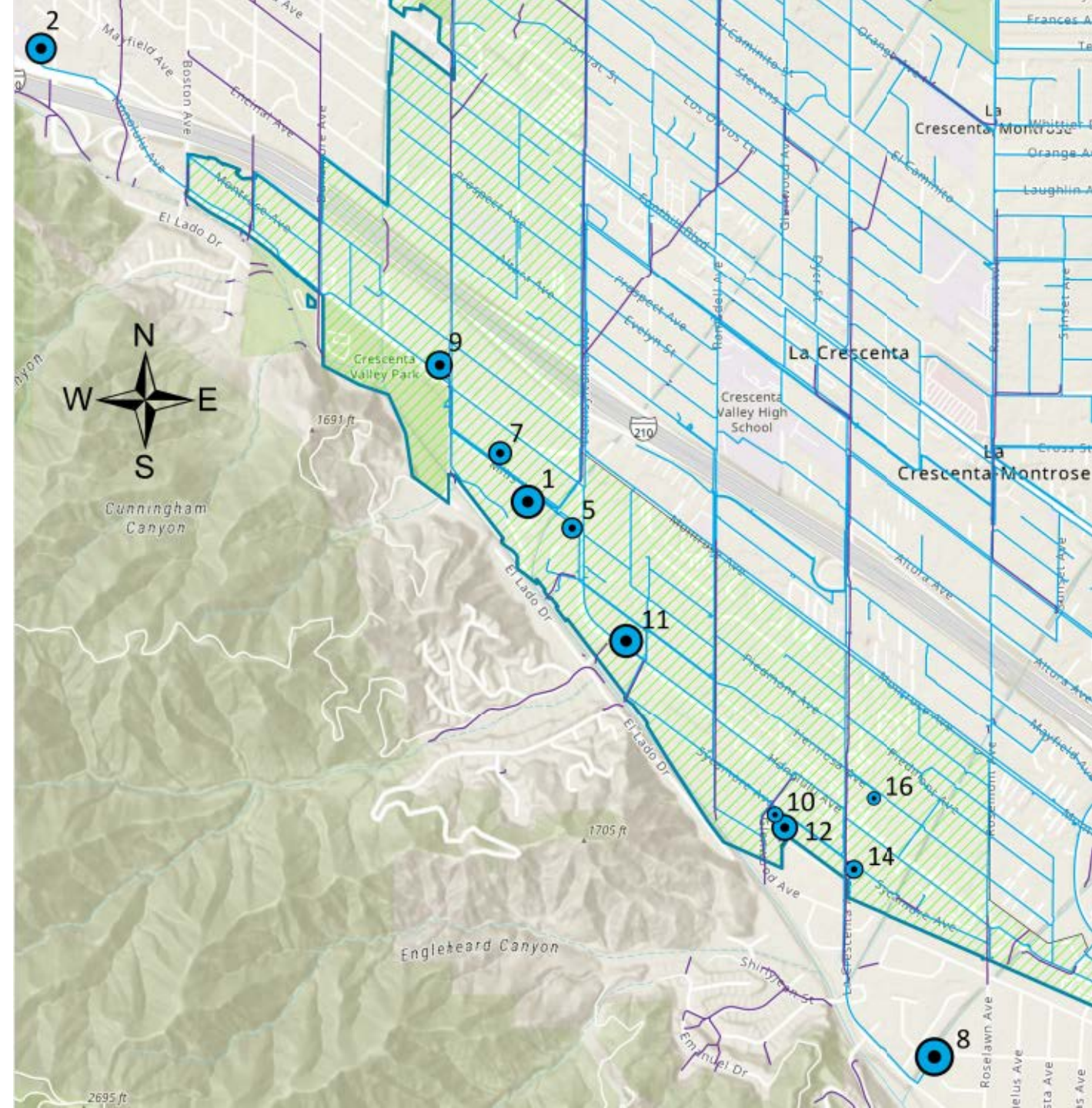
PFAS UPDATE



July 23, 2024

SOURCE PFOA

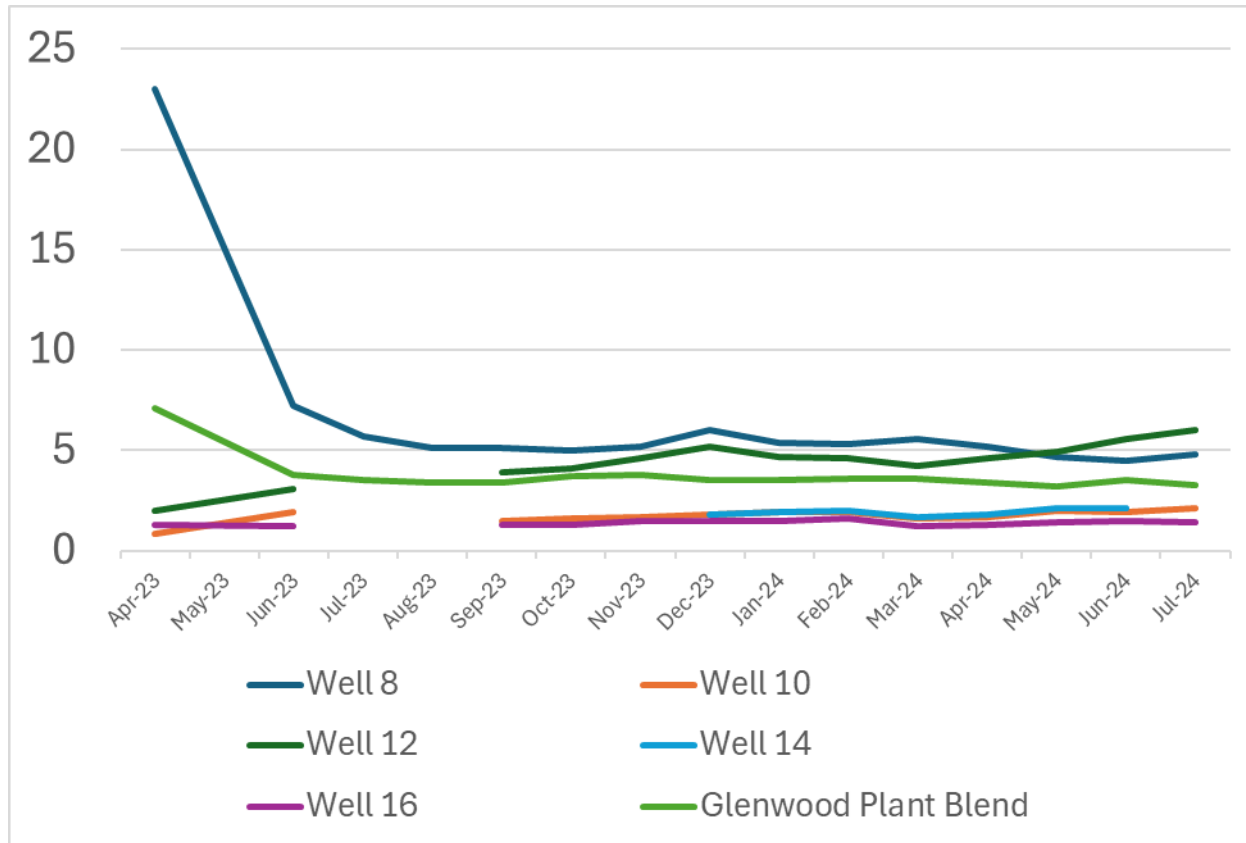
The size of each circle is proportional to the average level of PFOA



PFOA DATA (GLENWOOD SOURCES)

Date	Well 8	Well 10	Well 12	Well 14	Well 16	Glenwood Plant Blend
Apr-23	23	0.85	2	1.5	1.3	7.1
Jun-23	7.2	1.9	3.1		1.2	3.8
Jul-23	5.7					3.5
Aug-23	5.1					3.4
Sep-23	5.1	1.5	3.9		1.3	3.4
Oct-23	5	1.6	4.1		1.3	3.7
Nov-23	5.2	1.7	4.6		1.5	3.8
Dec-23	6	1.8	5.2	1.8	1.5	3.5
Jan-24	5.4	1.9	4.7	1.9	1.5	3.5
Feb-24	5.3	1.9	4.6	2	1.6	3.6
Mar-24	5.6	1.6	4.2	1.7	1.2	3.6
Apr-24	5.2	1.7	4.6	1.8	1.3	3.4
May-24	4.7	2	4.9	2.1	1.4	3.2
Jun-24	4.5	1.9	5.6	2.1	1.5	3.5
Jul-24	4.8	2.1	6	2.1	1.4	3.3

ug/L

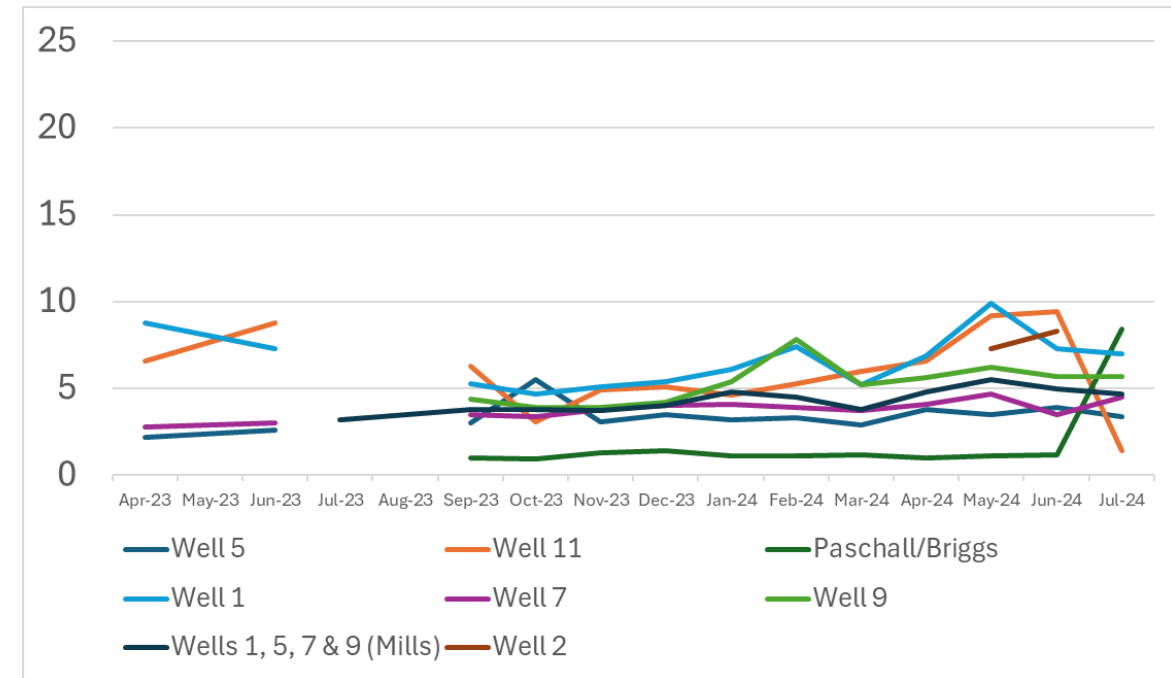




PFOA DATA (MILLS SOURCES)

Date	Well 1	Well 5	Well 7	Well 9	Wells 1, 5, 7 & 9 (Mills)	Well 2	Well 11	Paschall/Briggs
Apr-23	8.8	2.2	2.8		4.1		6.6	
Jun-23	7.3	2.6	3	3.5			8.8	
Jul-23					3.2			
Aug-23					3.5			
Sep-23	5.3	3	3.5	4.4	3.8		6.3	0.98
Oct-23	4.7	5.5	3.4	3.9	3.8		3.1	0.94
Nov-23	5.1	3.1	3.8	3.9	3.7		4.9	1.3
Dec-23	5.4	3.5	4	4.2	4		5.1	1.4
Jan-24	6.1	3.2	4.1	5.4	4.8		4.6	1.1
Feb-24	7.4	3.3	3.9	7.8	4.5		5.3	1.1
Mar-24	5.2	2.9	3.7	5.2	3.8		6	1.2
Apr-24	6.9	3.8	4.1	5.6	4.8		6.6	1
May-24	9.9	3.5	4.7	6.2	5.5	7.3	9.2	1.1
Jun-24	7.3	3.9	3.5	5.7	5	8.3	9.4	1.2
Jul-24	7	3.4	4.5	5.7	4.7	8.4	8.4	1.4

ug/L

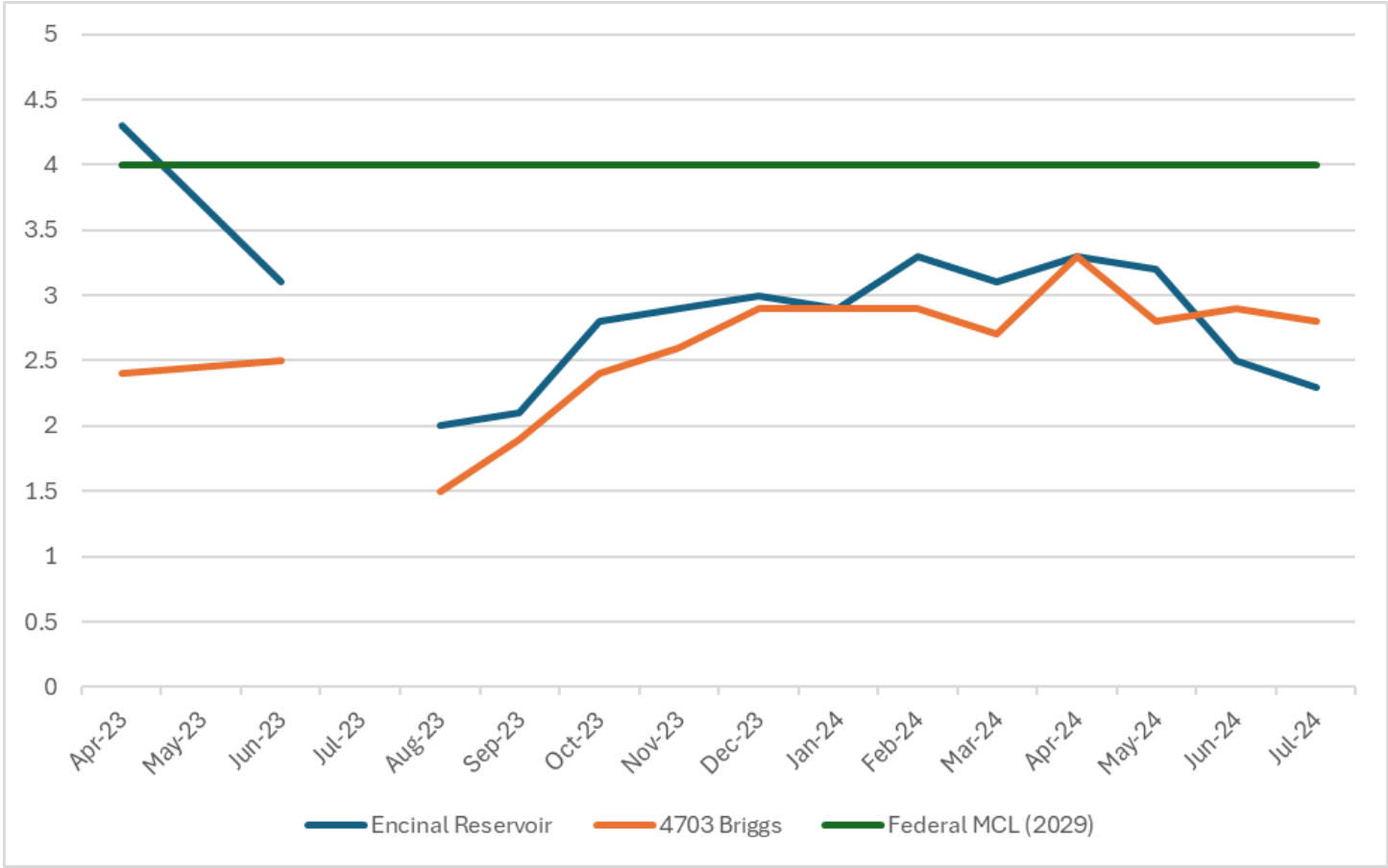




POINT OF USE PFOA

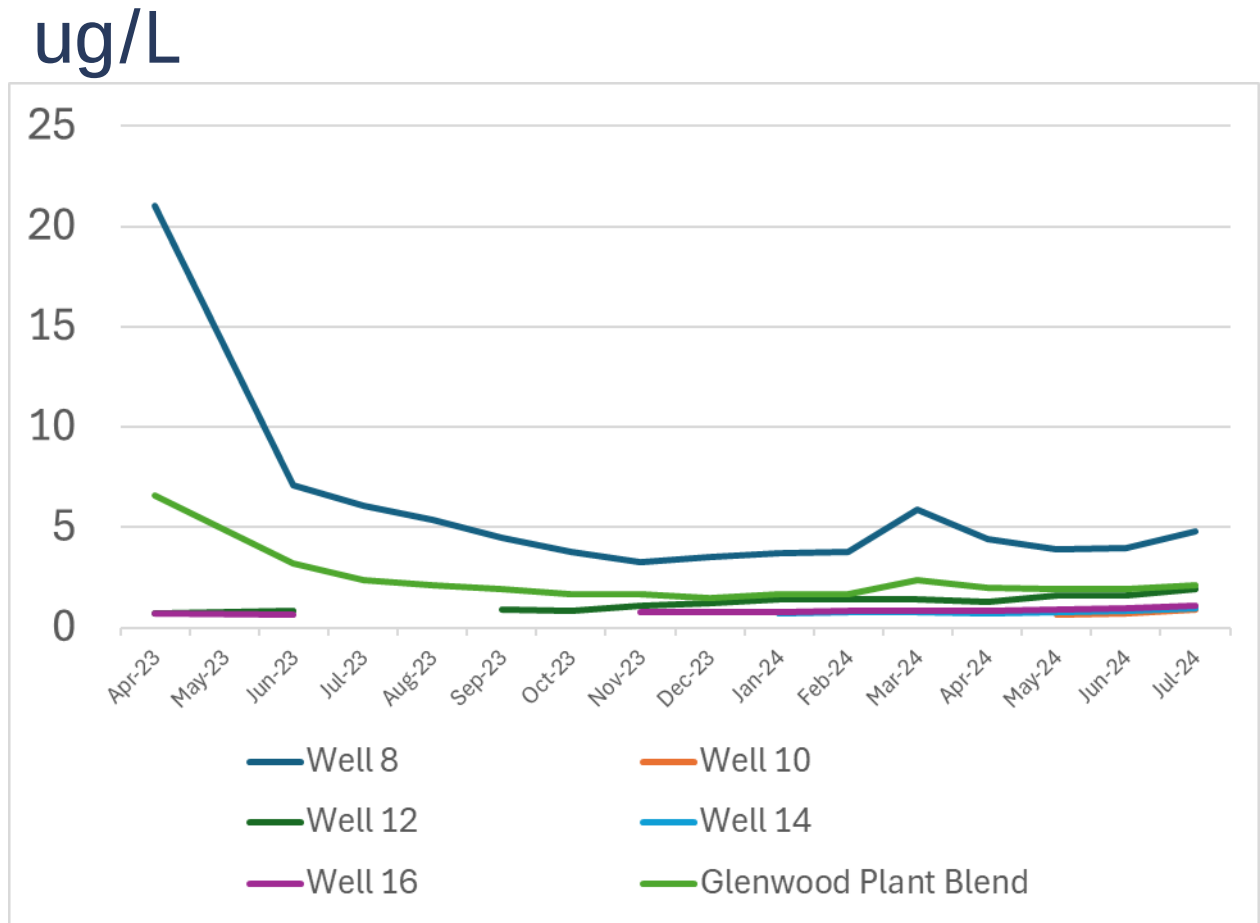
Date	Encinal Reservoir	4703 Briggs
Apr-23	4.3	2.4
Jun-23	3.1	2.5
Jul-23		
Aug-23	2	1.5
Sep-23	2.1	1.9
Oct-23	2.8	2.4
Nov-23	2.9	2.6
Dec-23	3	2.9
Jan-24	2.9	2.9
Feb-24	3.3	2.9
Mar-24	3.1	2.7
Apr-24	3.3	3.3
May-24	3.2	2.8
Jun-24	2.5	2.9
Jul-24	2.3	2.8

ug/L



PFOS DATA (GLENWOOD SOURCES)

Date	Well 8	Well 10	Well 12	Well 14	Well 16	Glenwood Plant Blend
Apr-23	21		0.72		0.69	6.6
Jun-23	7.1		0.87		0.68	3.2
Jul-23	6.1					2.4
Aug-23	5.4					2.1
Sep-23	4.5		0.93			1.9
Oct-23	3.8		0.87			1.7
Nov-23	3.3		1.1		0.79	1.7
Dec-23	3.5		1.2		0.75	1.5
Jan-24	3.7		1.4	0.72	0.8	1.7
Feb-24	3.8		1.4	0.79	0.87	1.7
Mar-24	5.9		1.4	0.76	0.84	2.4
Apr-24	4.4		1.3	0.71	0.86	2
May-24	3.9	0.67	1.6	0.81	0.9	1.9
Jun-24	4	0.73	1.6	0.83	0.99	1.9
Jul-24	4.8	0.91	1.9	0.95	1.1	2.1

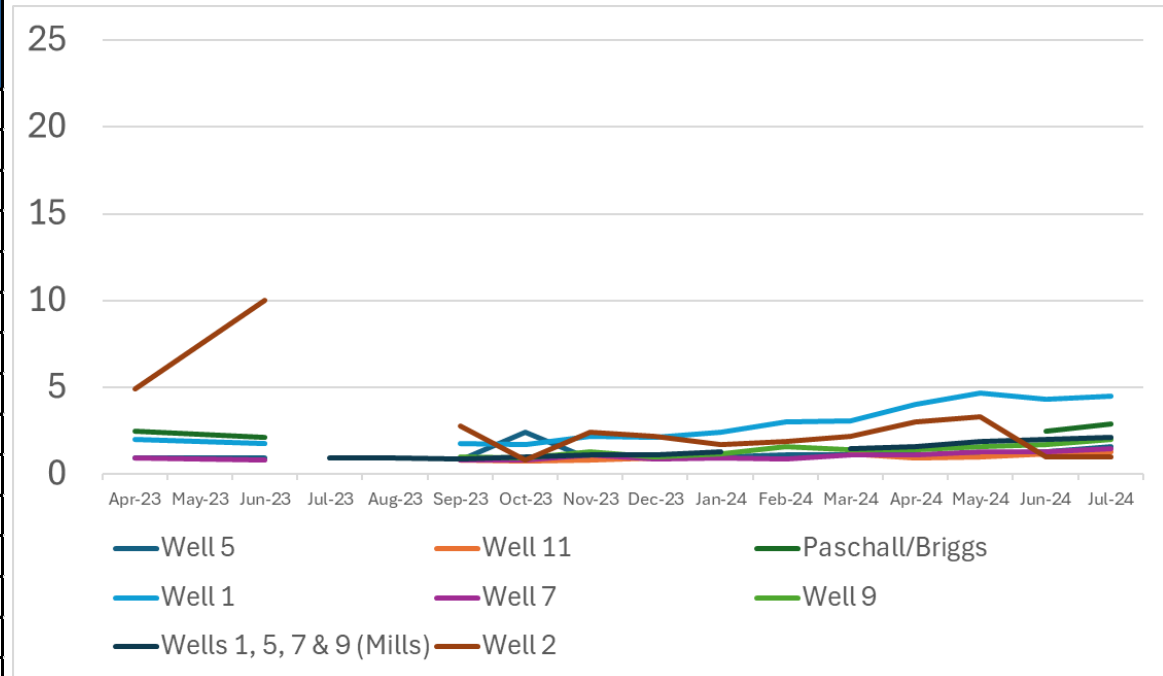


PFOS DATA (MILLS SOURCES)

7

Date	Well 1	Well 5	Well 7	Well 9	Wells 1, 5, 7 & 9 (Mills)	Well 2	Well 11	Paschal/Briggs
Apr-23	2	0.93	0.95		1.1	2.5	4.9	
Jun-23	1.8	0.92	0.83	0.93		2.1	10	
Jul-23					0.94			
Aug-23					0.92			
Sep-23	1.8	0.82	0.83	0.98	0.89		2.8	0.8
Oct-23	1.7	2.4	0.85	0.92	0.98		0.8	0.76
Nov-23	2.2	0.88	1.1	1.3	1.1		2.4	0.83
Dec-23	2.1	1	0.9	1	1.1		2.2	0.94
Jan-24	2.4	1	0.92	1.2	1.3		1.7	0.95
Feb-24	3	1.1	0.88	1.6			1.9	
Mar-24	3.1	1.1	1.1	1.4	1.5		2.2	1.2
Apr-24	4	1.1	1.1	1.4	1.6		3	0.95
May-24	4.7	1.2	1.3	1.6	1.9		3.3	1
Jun-24	4.3	1.3	1.3	1.7	2.0	2.5	0.98	1.2
Jul-24	4.5	1.6	1.5	2	2.1	2.9	1	1.3

ug/L

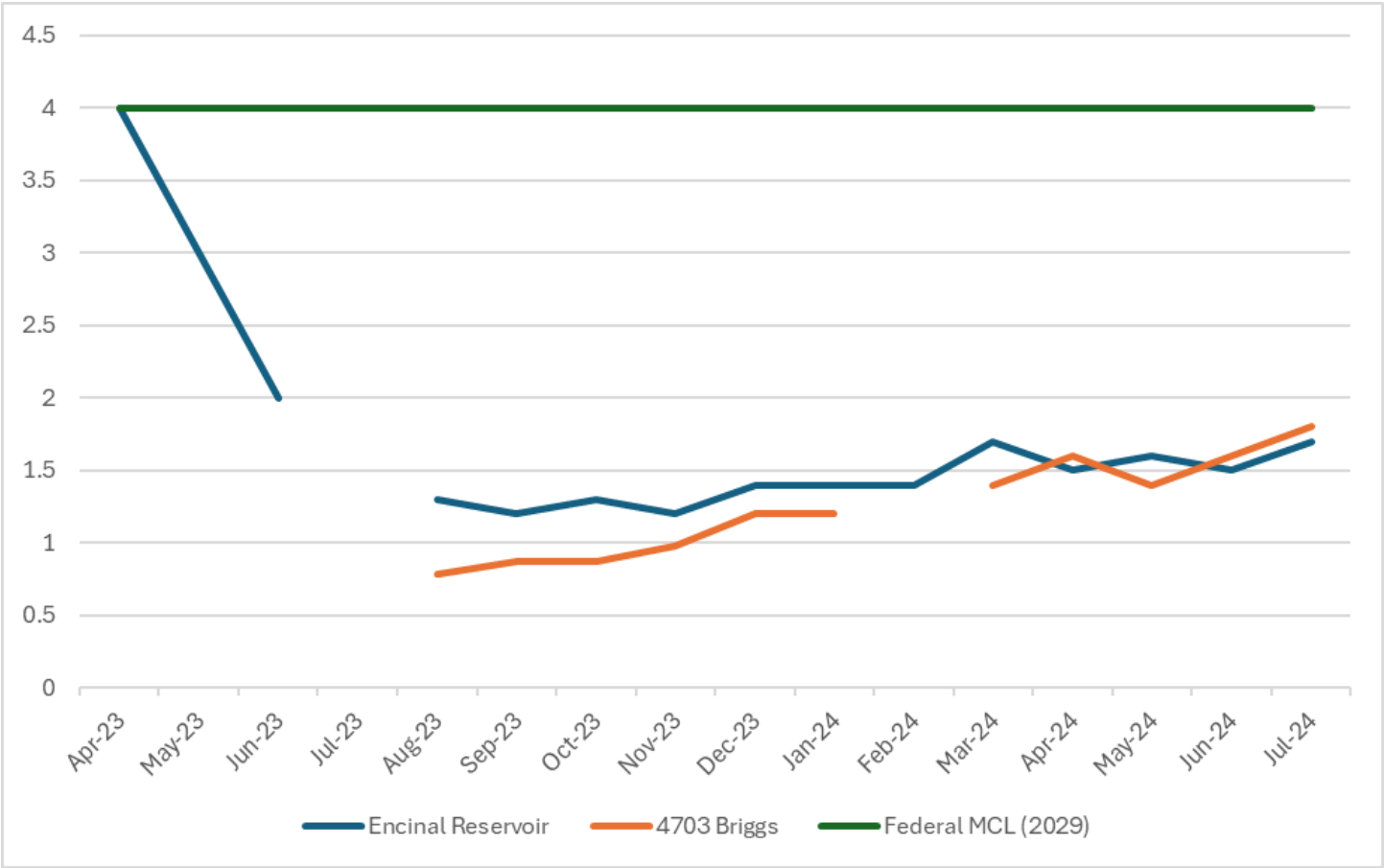




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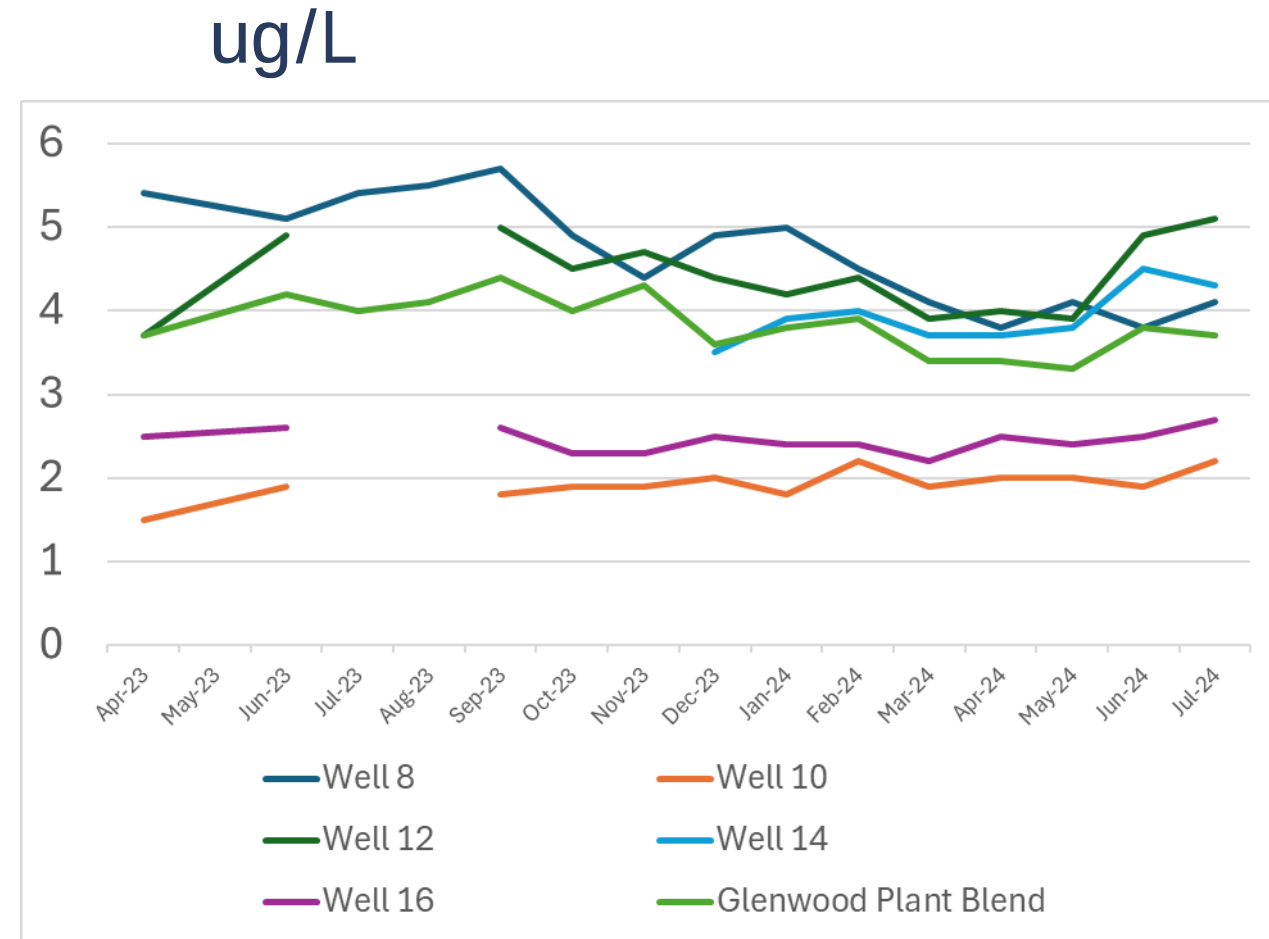
Date	Encinal Reservoir	4703 Briggs
Apr-23	4	
Jun-23	2	1.2
Jul-23		
Aug-23	1.3	0.78
Sep-23	1.2	0.87
Oct-23	1.3	0.87
Nov-23	1.2	0.98
Dec-23	1.4	1.2
Jan-24	1.4	1.2
Feb-24	1.4	
Mar-24	1.7	1.4
Apr-24	1.5	1.6
May-24	1.6	1.4
Jun-24	1.5	1.6
Jul-24	1.7	1.8

ug/L



PFHxS DATA (GLENWOOD SOURCES)

Date	Well 8	Well 10	Well 12	Well 14	Well 16	Glenwood Plant Blend
Apr-23	5.4	1.5	3.7	4.7	2.5	3.7
Jun-23	5.1	1.9	4.9		2.6	4.2
Jul-23	5.4					4
Aug-23	5.5					4.1
Sep-23	5.7	1.8	5		2.6	4.4
Oct-23	4.9	1.9	4.5		2.3	4
Nov-23	4.4	1.9	4.7		2.3	4.3
Dec-23	4.9	2	4.4	3.5	2.5	3.6
Jan-24	5	1.8	4.2	3.9	2.4	3.8
Feb-24	4.5	2.2	4.4	4	2.4	3.9
Mar-24	4.1	1.9	3.9	3.7	2.2	3.4
Apr-24	3.8	2	4	3.7	2.5	3.4
May-24	4.1	2	3.9	3.8	2.4	3.3
Jun-24	3.8	1.9	4.9	4.5	2.5	3.8
Jul-24	4.1	2.2	5.1	4.3	2.7	3.7

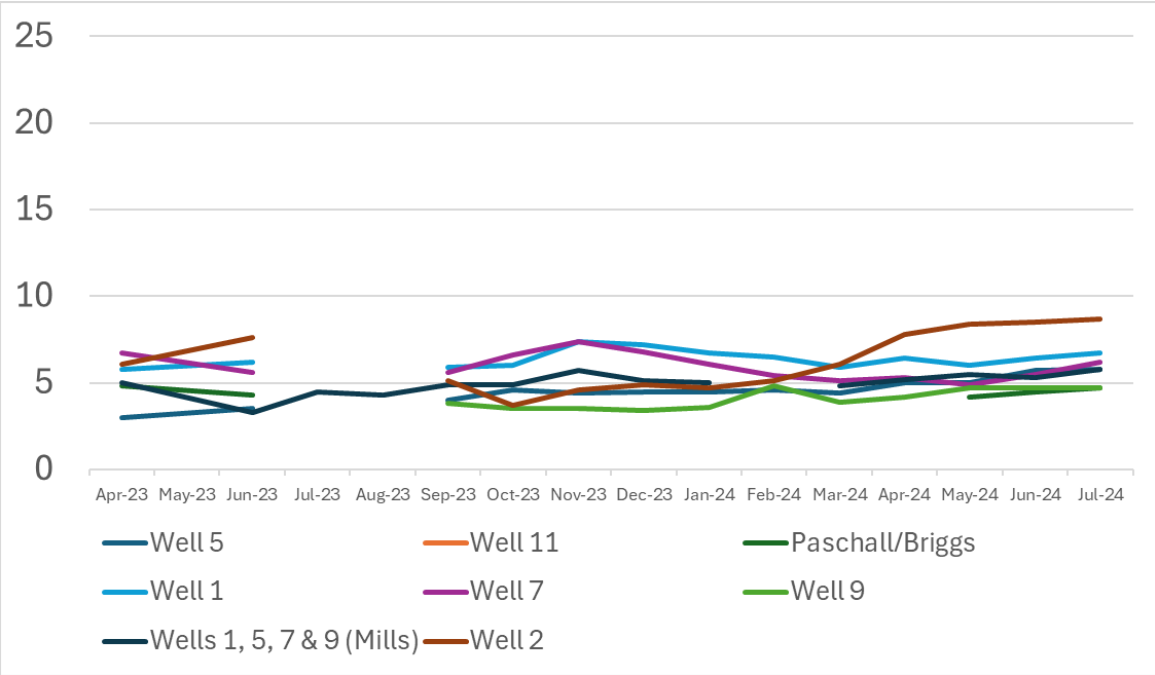




PFHxS DATA (MILLS SOURCES)

Date	Well 1	Well 5	Well 7	Well 9	Wells 1, 5, 7 & 9 (Mills)	Well 2	Well 11	Paschal/ Briggs
Apr-23	5.8	3	6.7		5	4.8	6.1	
Jun-23	6.2	3.5	5.6		3.3	4.3	7.6	
Jul-23					4.5			
Aug-23					4.3			
Sep-23	5.9	4	5.6	3.8	4.9		5.1	
Oct-23	6	4.6	6.6	3.5	4.9		3.7	
Nov-23	7.4	4.4	7.4	3.5	5.7		4.6	
Dec-23	7.2	4.5	6.8	3.4	5.1		4.9	
Jan-24	6.7	4.5	6.1	3.6	5		4.7	
Feb-24	6.5	4.6	5.4	4.8			5.1	
Mar-24	5.9	4.4	5.1	3.9	4.8		6.1	
Apr-24	6.4	5	5.3	4.2	5.2		7.8	
May-24	6.0	5.0	4.9	4.7	5.5	4.2	8.4	
Jun-24	6.4	5.7	5.5	4.7	5.3	4.5	8.5	
Jul-24	6.7	5.8	6.2	4.7	5.8	4.7	8.7	

ug/L

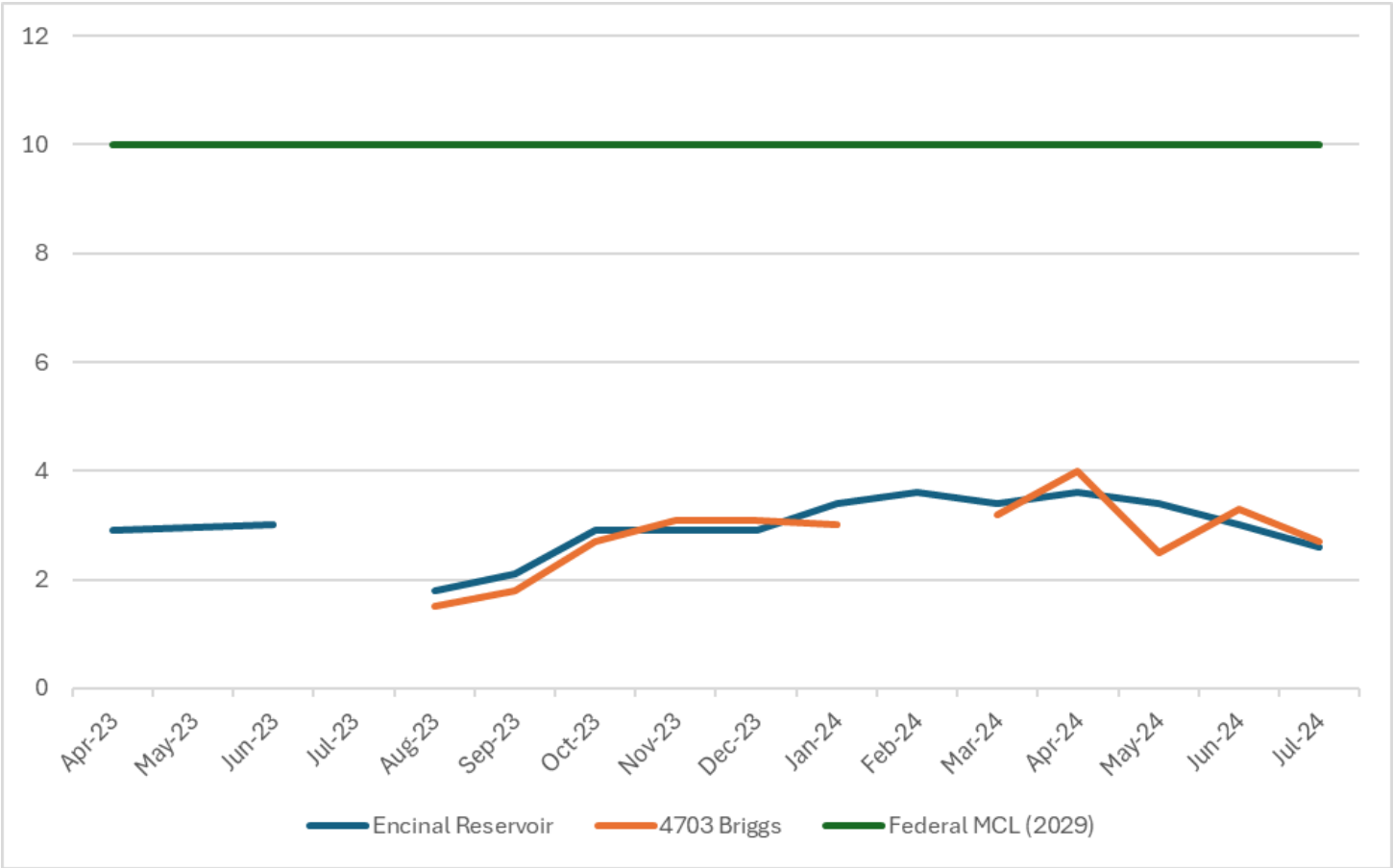




POINT OF USE PFHxS

Date	Encinal Reservoir	4703 Briggs
Apr-23	2.9	
Jun-23	3	2.7
Jul-23		
Aug-23	1.8	1.5
Sep-23	2.1	1.8
Oct-23	2.9	2.7
Nov-23	2.9	3.1
Dec-23	2.9	3.1
Jan-24	3.4	3
Feb-24	3.6	
Mar-24	3.4	3.2
Apr-24	3.6	4
May-24	3.4	2.5
Jun-24	3	3.3
Jul-24	2.6	2.7

ug/L



IMPORTED WATER PURCHASE SCENARIOS

		Increased Imported Purchase Water Cost						
					Monthly	Annual		
		May PFOA ug/L	June PFOA ug/L	Annual Volume (AF)	50% Production	Full Shutoff	50% Production	Full Shutoff
Mills	Well 11	9.2	9.4	161	\$9,727	\$19,454	\$116,725	\$233,450
Glenwood	Well 12	4.9	5.6	246	\$14,863	\$29,725	\$178,350	\$356,700
Glenwood	Well 8	4.7	4.5	271	\$16,373	\$32,746	\$196,475	\$392,950
Mills	Well 9	6.2	5.7	84	\$5,075	\$10,150	\$60,900	\$121,800
Mills	Well 1	9.9	7.3	104	\$6,283	\$12,567	\$75,400	\$150,800
			Total	762	\$46,038	\$92,075	\$552,450	\$1,104,900
Lost Savings								
Mills	Well 2	7.3		121	\$7,309	\$14,618	\$87,707	\$175,415
		Total		883	\$106,693		\$1,280,315	

Source: PFOA data, Well Production Summary, Well GPM estimation

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

To: Honorable President and Members of the Board of Directors
From: James Lee, General Manager
Subject: General Manager Report

GM Report
July 23, 2024

General Manager's Report Topics:

- Workplace Violence Prevention Plan – update
- In-House Pipeline initiative – update
- Safety Lunch – 6 months

STAFFING

3 employees have work anniversaries in July: Morgen DuRose – 23 years; Christina Kopelman – 18 years; Wayne Boyce – 7 years.

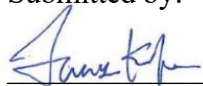
As of July 15th, the District has done 210 days without a lost time incident.

GENERAL MANAGER ACTIVITIES

Meetings:

Managers Meeting(s)	- June 27 th ; July 11 th ; July 18 th
CA Data Collaborative Executive Committee	- June 25 th
La County Parks Department	- June 26 th
Kinneloa Irrigation District	- June 26 th
Office of US Representative Adam Schiff	- June 27 th
Ad Hoc Committee: PFAS	- June 27 th
Foothill MWD	- July 1 st
LARTA (Glendale Tech Accelerator)	- July 1 st
Emergency Planning Committee	- July 2 nd
Finance Committee	- July 9 th
FMWD Managers Meeting	- July 10 th
Safety Lunch Celebration	- July 10 th
Office of US Representative Judy Chu	- July 10 th
Ad Hoc Committee: PFAS	- July 11 th
Valley County Water District	- July 12 th
La Canada Irrigation District	- July 15 th
Foothill MWD	- July 15 th
ULARA Watermaster	- July 16 th
All-Hands Staff Meeting	- July 18 th
Crescenta Valley Town Council	- July 19 th
San Bernardino Valley Municipal Water District	- July 19 th

Submitted by:



James Lee
General Manager

Field Maintenance and Operations Report

June 2024

1

Water Main Repairs

13

Water Service
Repairs: 3 Replacements: 10

2

After Hours Leaks/Repairs

0'

Sewer Maintenance
Clean: 0' Inspect: 807' Reports: 0

- **Field Maintenance Projects**

- * I-1075 – 4900 El Sereno – Install 331' 8" water main, 3 services
- * LADWP Intertie – Install RPV
- * D-22-115 – 1" Service

- **Operations Report**

- * UCMR 5 Action Fund Data–W6 & 15 – test, pump & collect EPA methods
- * Mills Booster A – VFD design & remove for service/rewind
- * LADWP Intertie - RPV
- * I-1075 – 4800-4900 El Sereno – Pipeline Disinfection & bacteriological sampling
- * Design & build portable chlorination disinfection manifold

- **Electrical/Telemetry**

- * Glenwood MCC – Replace & upgrade CAT Communication cables

- **Facilities Maintenance**

- * Glenwood – Remodel & office additions

- **Wastewater**

- * Lift Station Visits: 4 (De-rag pumps, check valves)

Field Maintenance and Operations Report

June 2024

Days without a lost-time incident: 192

120+

Water Quality Samples w/ additional
PFAS monitoring samples

101

Valves

Replace: 0 Exercise: 99 Install: 2

1

Fire Hydrant Maintenance

Rebuild: 0 Install: 1 Inspect: 0

1

Water Meter Replacement

¾": 0, 1": 1, 1.5": 0, 2": 0, 3": 0, 4": 0

- **Training/Cross Training**

- * None to Report

- **Events**

- * None to Report

- **New Certification**

- * None to report

- **Safety**

- * Disinfection - Flushing

- Glenwood Pant

- * Hydrostatic Pump – Pressure Testing

- O & M Crew

Engineering Report

July 23, 2024
Staff Report

To: Honorable President and Members of the Board of Directors
From: Carla Dillon, PE – Director of Engineering & Operations
Subject: **Engineering Report – June 2024**

- **Water Production Report**
 - June 2024 – Water production –58%/42% split – 108 MG for the month
 - June 2024 – Average use – 18.2% more than 2023 and 6.3% less than 5-year average
- **Rainfall Update**
 - 0.00” for June 2024
 - Rainfall Total for WY 2023/24 – 26.14”
- **Engineering Update - Water**
 - **FY 23/24 Capital Improvement Project**
 - Goss Canyon #2 Reservoir Rehabilitation
 - Complete
 - Paschall Booster B
 - Complete
 - LADWP-CVWD Emergency Interconnection
 - Manifold approved by LADWP
 - Manifold and break point chlorination installation – Week of June 10, 2024
 - Ramsdell Mixing Station/Pressure Reducing Station
 - Above ground PRVs Constructed
 - Materials on order for In-house repairs
 - Conversion to Chloramination
 - On hold
 - Mills Booster A VFD Installation
 - Motor removed for rewinding
 - VFD installation rescheduled for July 2024 due to supply chain delay
 - **FY 22/23 Capital Improvement Project (E-1046)**
 - 2600 & 2700 Blocks of Orange Ave
 - Reviewing claim documentation
 - **3000 & 3100 Blocks of Montrose Ave (E-1067)**
 - Complete
 - **Transfer of Services to Glendale Water and Power (E-1051)**
 - GWP completed five lateral installations in June and is pending a final installation at 3445 Foothill Blvd
 - CVWD to proceed with extension and abandonments in July 2024
 - **Replacement of Supervisory Control and Data Acquisition (SCADA) System**
 - Site visit week of June 10
 - Remaining work to be accomplished in three site visits:
 - Punchlist items
 - Document all control strategies
 - Upgrade processors to most recent version
 -

- **Engineering Update - Wastewater**
 - Wastewater Master Plan
 - Report is final and Kennedy-Jenks will present at next Engineering Committee Meeting
- **Grant Status (Engineering and Regulatory/Public Affairs)**
 - Water Recycling Grant
 - Proposals were due July 5, 2024
 - New Backhoe – Carl Moyer Grant – Executed Award Agreement for \$31,114 (Attached)
 - Stormwater Capture Project at Crescenta Valley County Park – Measure W Application due July 31
 - Metropolitan Future Supply Action Grant – Awarded (Attached)
- **Developer Projects**
 - On hiatus
 - 3037/3043 Foothill – Pending payment of materials, selection of a contractor, and faithful performance bond
 - 4360 Ocean View – 7 units – Pending Reconciliation and Transfer
 - 4521 Briggs/2413 Foothill – New 81 units
 - 2341 Mira Vista – New 4 Units
 - 2434 Foothill – New 31 units – Developer has cancelled the project and is selling the parcels
- **FMWD**
 - No Report

CRESCENTA VALLEY WATER DISTRICT

WATER PRODUCTION REPORT

June 1 -June 30, 2024

Well Production:	55,811,476	Gals		
GWP Production:	4,922,000	Gals		
Gravity Production:	1,445,289	Gals	% GW	58%
FMWD:	45,882,260	Gals		
City of Glendale:	0	Gals	% Import	42%
TOTAL:	108,061,025	Gals		
	331.63	ac-ft		

Glenwood Nitrate Water

Reclamation Plant:*

0

*Included in Well Production

WATER DEMAND COMPARISON

Time Period	Average Daily Usage (gals)	Current Period Change
June 1 - June 30, 2024	3,540,986	
June 1 - June 30, 2023	2,995,516	18.2%
5-yr Average - June 2019 - 2023	3,780,817	-6.3%

RAINFALL: June 1 - 30, 2024 0.00"

Season-To-Date: 26.14"

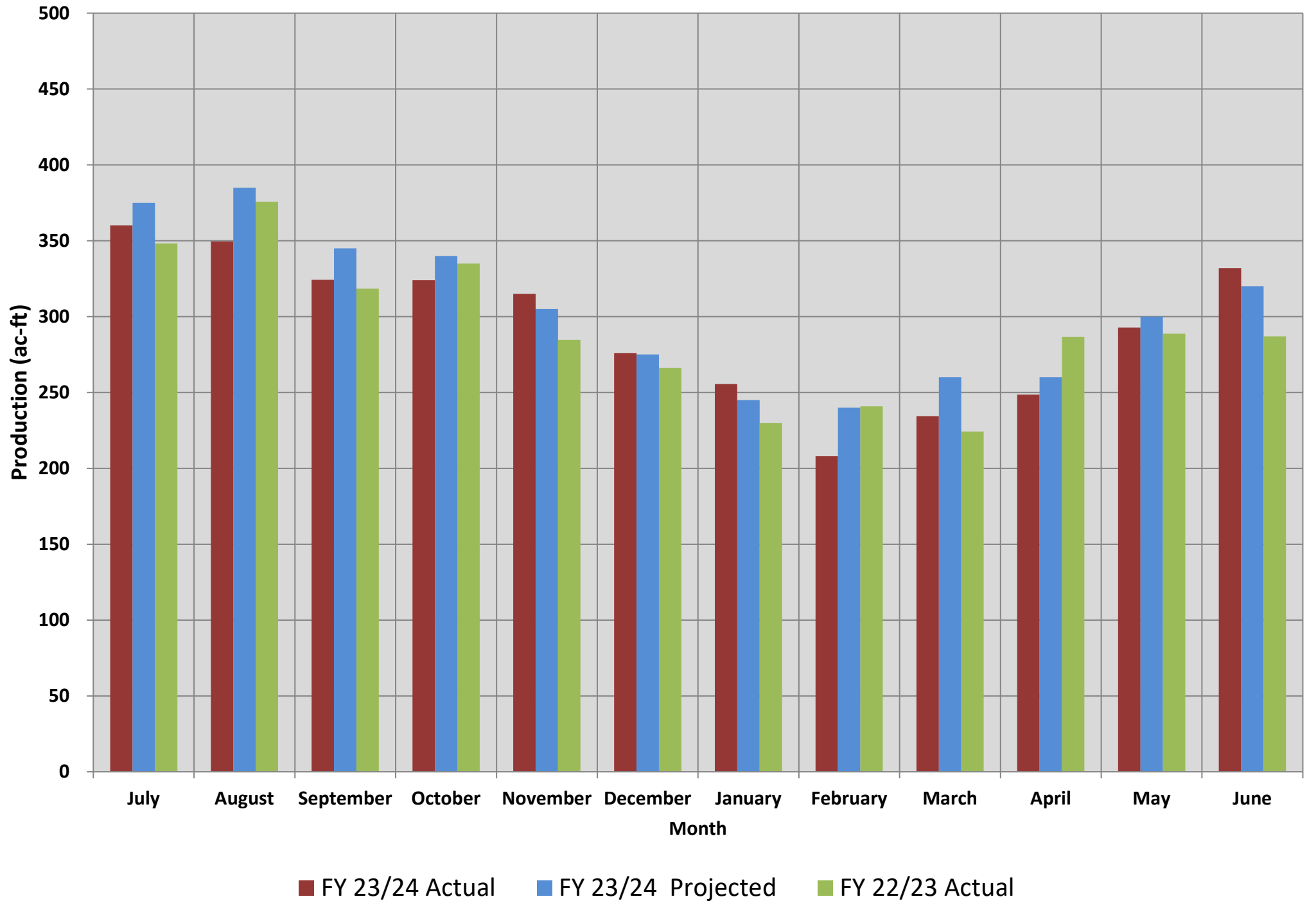
2023/24 Fiscal Year Water Production			WY 23/24 - Groundwater Production Water Rights		GWP (Well 16) Water Production - 2024		Purchased Water Production Tier 2 Allocation - 2024	
Month	Actual Total Water Production (ac-ft)	Projected Total Water Production (ac-ft)	Month	Month	Month	Well Production (ac-ft)	Month	Imported Water Production (ac-ft)
July	360	375	October	160	January	13	January	79
August	350	385	November	168	February	13	February	53
September	324	345	December	169	March	14	March	51
October	324	340	January	142	April	15	April	74
November	315	305	February	142	May	16	May	96
December	276	275	March	160	June	15	June	141
January	256	245	April	161	July		July	
February	208	240	May	181	August		August	
March	234	260	June	176	September		September	
April	249	260	July		October		October	
May	293	300	August		November		November	
June	332	320	September		December		December	
Total to Date	3,521	3,330	Total to Date	1,459	Total to Date	86	Total to Date	494
Projected	3,509	3,650	Water Rights	3,294			Tier 2	2,154
% of Projected	96.5%	91.2%	% of Rights	44%			% of Allocation	23%
Remaining	129	320	Remaining	1,835			Remaining	1,660

NOTE:

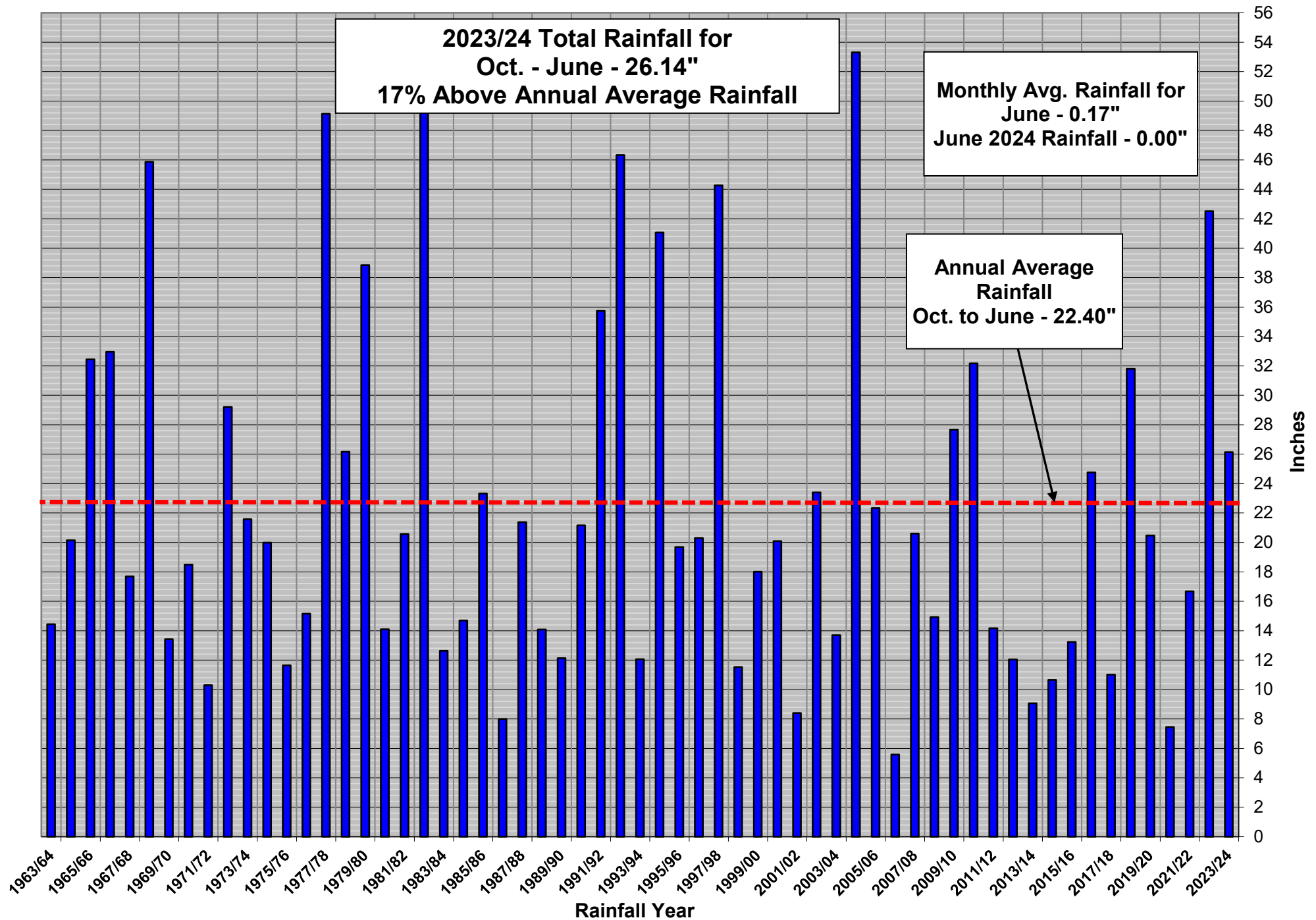
1) Blue Numbers = Estimated Water Production

Monthly Water Production:

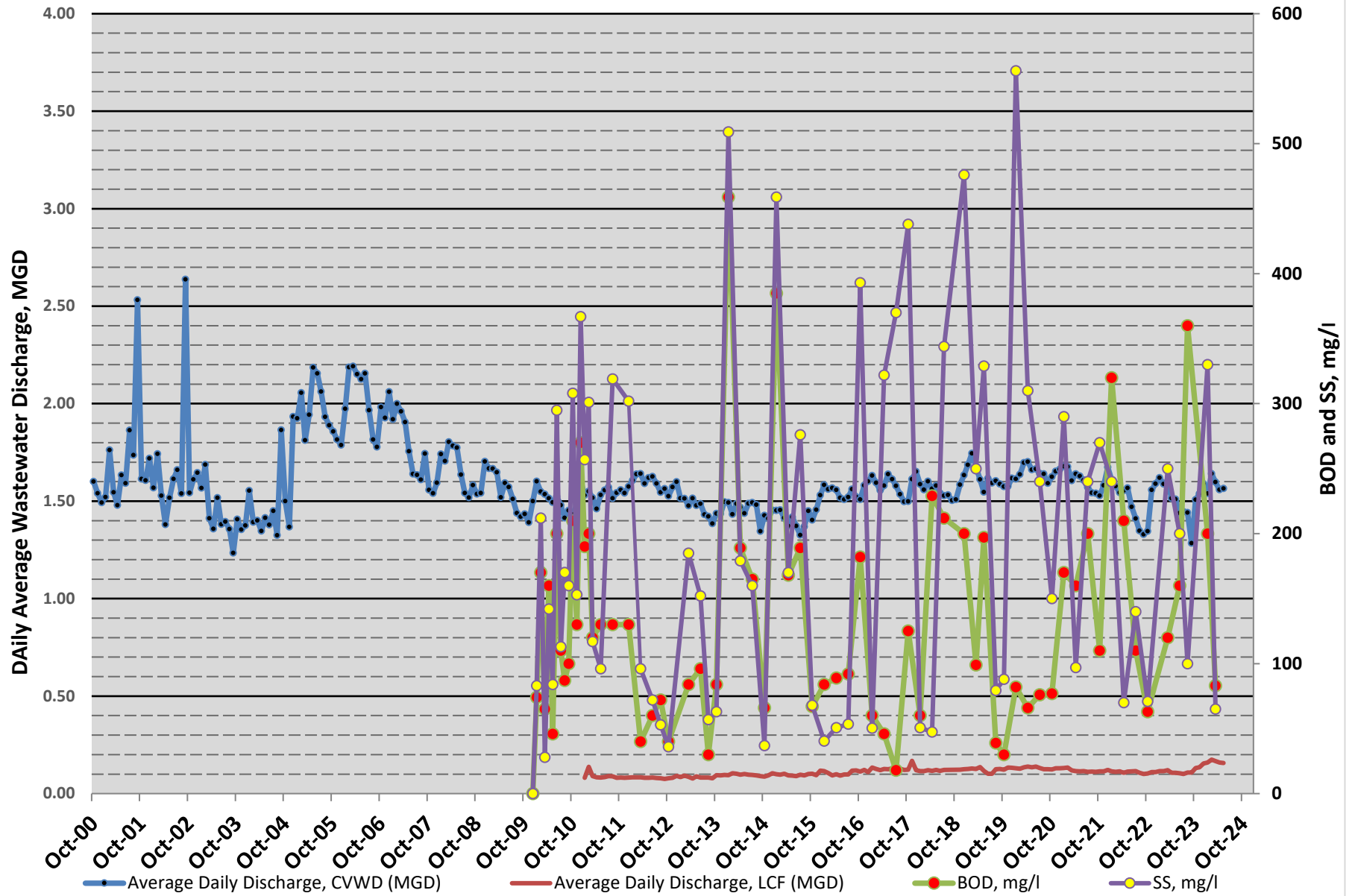
FY 23/24 Actual, FY 23/24 Projected & FY 22/23 Actual



Monthly Rainfall - 1963/64 - 2023/24 (Oct. 1 - June 30)



CVWD Daily Average Wastewater Discharge and Strength
October 1, 2000 - May 31, 2024



Grants Awarded

June 2024



South Coast Air Quality Management District

Agreement No. **C24177**
Carl Moyer Program

This Agreement consists of 21 pages.

1. PARTIES

The parties to this Agreement ("Agreement") are the South Coast Air Quality Management District (referred to here as "SCAQMD") whose address is 21865 Copley Drive, Diamond Bar, California 91765-4178, and Crescenta Valley Water District (referred to here as "RECIPIENT") whose address is 2700 Foothill Boulevard, La Crescenta, California 91214.

2. RECITALS

- A. SCAQMD is the local agency with primary responsibility for regulating stationary source air pollution within the geographical boundaries of the South Coast Air Quality Management District in the State of California. SCAQMD is authorized to enter into this Agreement under California Health and Safety Code Section 40489. This Carl Moyer Program-funded Agreement will provide funding for eligible Equipment in order to generate cost-effective (if applicable) and surplus air emission reductions within the geographical boundaries of the South Coast Air Quality Management District. Accordingly, the parties desire to enter into this Agreement for the project described in Attachment 1 - Statement of Work, attached here and made a part here by reference.
- B. RECIPIENT is authorized to do business in the State of California and attests that it is in good tax standing with the California Franchise Tax Board.
- C. All parties to this Agreement have had the opportunity to have this Agreement reviewed by their attorney.
- D. "Equipment," as used in this Agreement, means the equipment described in Attachment 1 - Statement of Work and funded in whole or in part by the Carl Moyer Program, which may include, but is not limited to, trucks, engines, marine vessels, retrofit devices, infrastructure, cargo handling equipment and/or locomotives, as applicable.

3. PERFORMANCE REQUIREMENTS

- A. RECIPIENT agrees to obtain and maintain the required licenses, permits, and all other appropriate legal authorizations from all applicable federal, state and local jurisdictions and pay all applicable fees. RECIPIENT further agrees to immediately notify SCAQMD in writing of any change in its licensing status which has a material impact on the RECIPIENT's performance under this Agreement.
- B. RECIPIENT shall submit reports to SCAQMD as outlined in Attachment 1 - Statement of Work. Unless otherwise stated herein, all reports shall be submitted in an environmentally friendly format: recycled paper; stapled, not bound; black and white, double-sided print; and no three-ring, spiral, or plastic binders or cardstock covers. SCAQMD reserves the right to review, comment, and request changes to any report produced as a result of this Agreement.
- C. RECIPIENT shall perform all tasks set forth in Attachment 1 - Statement of Work, and RECIPIENT represents and warrants that it has no business, professional, personal or other interest that would conflict in any manner or degree with the performance of its obligations under this Agreement. If any such actual or potential conflict of interest arises during the term of this Agreement, RECIPIENT shall immediately inform SCAQMD in writing, and SCAQMD may, in its sole judgment, terminate this Agreement immediately upon written notice to RECIPIENT.

D. RECIPIENT shall require its subcontractors to abide by the requirements set forth in this Agreement.

4. TERM

The term of this Agreement is from the last date of execution by the parties, which is the effective date of this Agreement, to April 30, 2030, unless further extended by amendment of this Agreement in writing. Except as otherwise provided herein, no work shall commence until this Agreement is fully executed by all parties. RECIPIENT assumes all financial risk and is in no way guaranteed Carl Moyer Program funds for work done prior to the effective date of this Agreement. The Agreement term above encompasses both the project completion and project implementation periods, as described below, to ensure that the SCAQMD and the California Air Resources Board ("CARB") can fully enforce the terms of this Agreement during the life of this Carl Moyer Program-funded project.

- A. Project Completion - Project completion is the time frame starting with the date of Agreement execution by both parties to the date the project post-inspection confirms that the project has become operational. This includes the time period when the Equipment described in Attachment 1 - Statement of Work is ordered, delivered and installed.
- B. Project Implementation - The project implementation time frame is the second part of the Agreement term and equals the project life, which is the number of years that the Equipment must operate as specified in the Attachment 1 - Statement of Work to obtain surplus emissions reductions that are cost-effective. RECIPIENT is required to operate and maintain the Carl Moyer Program-funded Equipment according to the terms of this Agreement for the full project implementation period.

5. TIME PERIOD FOR AGREEMENT EXECUTION

This Agreement must be signed by the RECIPIENT and received by SCAQMD within sixty (60) days from the receipt of the Agreement by the RECIPIENT. Failure to timely sign and return the Agreement to SCAQMD may result in the withdrawal of the award. Time is of the essence in executing this Agreement.

6. TERMINATION

- A. RECIPIENT's failure to comply with any term or condition of this Agreement shall constitute a material breach of this Agreement. The SCAQMD will either notify the RECIPIENT that it must timely cure this breach, or provide ten (10) days' written notification of SCAQMD's intention to terminate this Agreement. The SCAQMD reserves all rights under law and equity to enforce this Agreement or to recover damages.
- B. SCAQMD reserves the right to terminate this Agreement, in whole or in part without cause upon thirty (30) days' written notice. Once such notice has been given, RECIPIENT shall, except as otherwise directed by SCAQMD, discontinue any work being performed under this Agreement and cancel all of RECIPIENT's orders in connection with such work, and shall use its best efforts to terminate existing subcontracts upon terms satisfactory to the SCAQMD. Thereafter, RECIPIENT shall perform only such services as may be necessary to preserve and protect any work already in progress and to dispose of any property as requested by SCAQMD. RECIPIENT shall also promptly deliver to SCAQMD all copies of documentation and other information and data prepared or developed by RECIPIENT under this Agreement. RECIPIENT will be paid in accordance with this Agreement for work performed before the effective date of termination.
- C. Should RECIPIENT terminate this Agreement in whole or in part prior to the completion of the Agreement term, such as in the event of an accident resulting in total loss of the Equipment or where

the Equipment has been stolen, RECIPIENT shall notify the SCAQMD within 10 business days and must submit written documentation to SCAQMD, such as police and/or insurance reports as well as any other information requested by SCAQMD. RECIPIENT will, at the discretion of SCAQMD, be responsible either for returning to SCAQMD a pro-rated share of the funds already paid under the Agreement, in an amount to be determined by SCAQMD, or for providing a substitute equipment that meets the specifications of the replacement or repowered Equipment as described in the Attachment 1 - Statement of Work.

7. STOP WORK

SCAQMD may, at any time, by written notice to RECIPIENT, require RECIPIENT to stop all or any part of the work tasks in this Agreement. A stop work order may be issued for reasons including, but not limited to, the project exceeding the budget, out of scope work, delay in project schedule, or misrepresentations. Upon receipt of the stop work order, RECIPIENT shall immediately take all necessary steps to comply with the order. RECIPIENT shall resume the work only upon receipt of written instructions from SCAQMD cancelling the stop work order. RECIPIENT agrees and understands that RECIPIENT will not be paid for performing work while the stop work order is in effect, unless SCAQMD agrees to do so in its written cancellation of the stop work order.

8. INSURANCE

- A. RECIPIENT shall furnish evidence to SCAQMD of workers' compensation insurance for each of its employees, in accordance with either California or other states' applicable statutory requirements prior to commencement of any work on this Agreement.
- B. RECIPIENT shall furnish evidence to SCAQMD of general liability insurance with a limit of at least \$1,000,000 per occurrence, and \$2,000,000 in a general aggregate prior to commencement of any work on this Agreement. SCAQMD must be named as an additional insured on any such liability policy, and thirty (30) days written notice prior to cancellation of any such insurance shall be given by RECIPIENT to SCAQMD.
- C. RECIPIENT shall furnish evidence to SCAQMD of automobile liability insurance with limits of at least \$100,000 per person and \$300,000 per accident for bodily injuries, and \$50,000 in property damage, or \$1,000,000 combined single limit for bodily injury or property damage, prior to commencement of any work on this Agreement. SCAQMD must be named as an additional insured on any such liability policy, and thirty (30) days written notice prior to cancellation of any such insurance shall be given by RECIPIENT to SCAQMD.
- D. If RECIPIENT fails to maintain the required insurance coverage set forth above, SCAQMD reserves the right either to purchase such additional insurance and to deduct the cost thereof from any payments owed to RECIPIENT or terminate this Agreement for breach.
- E. All insurance certificates must be sent to SCAQMD Risk Management, by email (insurancecertificate@aqmd.gov) or by fax (909-396-3979). **The SCAQMD Agreement Number must be included on the face of the certificate.**
- F. RECIPIENT agrees to maintain the above required insurance as well as property insurance with sufficient limits to cover the loss of the Equipment. RECIPIENT must provide updates on the insurance coverage throughout the term of the Agreement to ensure that there is no break in coverage during the period of Agreement performance. Failure to provide evidence of current coverage is grounds for termination for breach of Agreement.

- G. If RECIPIENT subcontracts all or part of the work under this Agreement, RECIPIENT shall require its subcontractors to comply with the above-mentioned insurance requirements and to name SCAQMD as an additional insured in the above-mentioned insurance policies.

9. INDEMNIFICATION

RECIPIENT agrees to hold harmless, defend and indemnify SCAQMD, its officers, employees, agents, representatives, and successors-in-interest against any and all loss, damage, costs, lawsuits, claims, demands, causes of action, judgments, attorney's fees, or any other expenses arising from or related to any third party claim against SCAQMD, its officers, employees, agents, representatives, or successors in interest that arise or result in whole or in part, from any actual or alleged act or omission of RECIPIENT, its employees, subcontractors, agents or representatives in the performance of this Agreement. This Indemnification Clause shall survive the expiration or termination (for any reason) of the Agreement and shall remain in full force and effect.

10. COMPLIANCE WITH CARL MOYER PROGRAM GUIDELINES

RECIPIENT warrants that the project upon which this Agreement is based complies, as applicable, with CARB's current Carl Moyer Program Guidelines, Advisories and Mail-Outs (collectively, "CMP Guidelines"), which are incorporated herein by reference, and which include, but are not limited to, the following:

- A. The project described in the Statement of Work complies with the requirements of the Surplus Off-Road Opt-In for NOx (SOON) Program (13 CCR Part 2449 et seq.) and is not required by any local, state and/or federal rule or regulation, memorandum of understanding/agreement, settlement agreement, mitigation requirement, or other legal mandate.
- B. The low emissions technology used in the project has been certified or verified by CARB and meets the applicable NOx, PM and/or ROG requirements, or if it has not been certified/verified by CARB, the low emissions technology has been approved by CARB on a case-by-case basis.
- C. Rights to the emission reductions generated by the project must not be claimed by any participant as emission reduction credits or be used under any emission averaging banking and trading program. In addition, rights to the emission reductions may not be claimed by the engine or equipment manufacturer in any flexibility or "early introduction" incentive program.
- D. The Equipment must not have been ordered or purchased prior to the date of the SCAQMD Governing Board approval of the Agreement award.
- E. For repowers and replacement projects, the existing (old) engine must be destroyed and rendered permanently unusable and irreparable. There must be no cannibalization of parts from the old engine. Destruction methods and requirements are specified in the Statement of Work and the CMP Guidelines.
- F. For repower projects, the installation of the engine must be completed in a manner such that it does not void the engine warranty provided by the manufacturer and any remaining warranty provided by the equipment manufacturer.
- G. In signing this Agreement, RECIPIENT certifies that its fleet and Equipment are in compliance with all applicable federal state, and local air quality rules and regulations at the time of Agreement execution, and that it will maintain compliance for the full Agreement term. RECIPIENT shall ensure that the provisions of this clause are included in all subcontracts.
- H. The project must be included when defining the size of the RECIPIENT's fleet for determining regulatory requirements.

- I. Throughout the Agreement term, the project must not be used to generate credits or compliance extensions, and must be excluded when determining regulatory compliance.

11. NO LEASE-TO-OWN AGREEMENTS

RECIPIENT may not enter into any lease-to-own agreements for any Equipment funded in whole or in part under this Agreement. Failure to comply with this provision shall result in RECIPIENT returning some or all of the Agreement funds, as determined by SCAQMD at its sole discretion. RECIPIENT shall ensure that the provisions of this clause are included in all subcontracts.

12. COMPLIANCE WITH APPLICABLE LAWS

RECIPIENT agrees to comply with all federal, state, and local laws, ordinances, codes and regulations and orders of public authorities in the performance of this Agreement. RECIPIENT must also ensure that the vehicles and/or equipment to be purchased, leased or installed in the performance of this Agreement are in compliance with all applicable federal, state, and local air quality rules and regulations, and that it will maintain compliance for the full Agreement term. RECIPIENT shall ensure that the provisions of this clause are included in all subcontracts.

13. EXECUTIVE ORDER N-6-22 – RUSSIA SANCTIONS

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. RECIPIENT represents and warrants that it is not a target of Economic Sanctions, and that it shall refrain from conducting prohibited transactions with sanctioned individuals or entities. RECIPIENT shall comply with all applicable reporting requirements regarding compliance with economic sanctions, including, but not limited to, those reporting requirements set forth in the EO if this Agreement has a total value of \$5,000,000 or more. Failure to comply with this clause and the EO may result in immediate termination of this Agreement at the sole discretion of SCAQMD.

14. INCORPORATION OF CARL MOYER PROGRAM APPLICATION

RECIPIENT'S application for the project funded under this Agreement is hereby incorporated by reference and made a part of this Agreement. In the event of a conflict between the terms and conditions of this Agreement and RECIPIENT's application, this Agreement shall govern.

15. MAINTENANCE

RECIPIENT shall maintain the Equipment in accordance with the manufacturer's specifications for the project life. Tampering with the engine is strictly prohibited. RECIPIENT is responsible for maintaining a working hour meter or other SCAQMD-approved measuring device to track Equipment usage for projects that use hours of operation as a means of calculating emission reductions and cost-effectiveness. If the hour meter/usage device fails, RECIPIENT must immediately notify SCAQMD, and RECIPIENT remains responsible for validating any hours not recorded by the hour meter/usage device. The RECIPIENT must either repair or replace the non-operating meter/device or provide other documentation of Equipment operating hours acceptable to SCAQMD.

16. RECORDS RETENTION, ON-SITE INSPECTIONS AND AUDIT

- A. RECIPIENT agrees to the following Records Retention Period: maintain records related to this Agreement during the Agreement term and continue to retain these records for a period of three years beyond the Agreement term.
- B. SCAQMD, CARB, or its designee(s), shall have the right to conduct on-site inspections of the project and to audit records related to this Agreement during the Records Retention Period. RECIPIENT agrees to include a similar right for these agencies to conduct on-site inspections and audits in any related subcontract.
- C. If an amount is found to be inappropriately expended, RECIPIENT shall reimburse SCAQMD, or SCAQMD may withhold payment from RECIPIENT, as applicable, in the amount equal to the amount which was inappropriately expended. Such withholding or reimbursement shall not be construed as SCAQMD's sole remedy and shall not relieve RECIPIENT of its obligation to perform under the terms of this Agreement.

17. INSPECTIONS

- A. A Pre-Inspection shall be conducted by the SCAQMD on **all** existing (old) equipment (including engines and vehicles) prior to any work commencing under this Agreement. SCAQMD must verify that RECIPIENT has met all requirements of the Carl Moyer Program regarding eligibility of the existing equipment. This includes documentation of the type of equipment, operational condition, mileage, vehicle and engine identification. This Agreement may be modified or terminated based upon the results of the Pre-Inspection should the SCAQMD determine that: the existing equipment is non-operational; does not match the information submitted for analysis (i.e. vehicle make, model, model-year, engine type, horsepower, model year, etc.); or other factors exist that would not result in calculated real, quantifiable, and surplus emission reductions. For fleets owned or operated by public agencies, SCAQMD may conduct the Pre-Inspection by requiring the public agency to provide documentation to verify that all requirements of the Carl Moyer Program regarding eligibility of existing equipment/vehicles/engines are met. It is the responsibility of the RECIPIENT to contact SCAQMD and arrange a Pre-Inspection of the existing equipment, and to confirm with SCAQMD that the equipment has been pre-inspected and is eligible to participate in the Carl Moyer Program.
- B. A Post-Inspection shall be conducted by the SCAQMD after receipt of the invoice from the RECIPIENT. SCAQMD must verify that RECIPIENT has met all requirements of the Carl Moyer Program. Final payment will not be made unless the SCAQMD verifies that: the Equipment, retrofit device or engine listed in the Statement of Work has/have been installed; that the Equipment is operational; and, where applicable, that the replaced engine(s) or vehicle(s) has/have been destroyed and rendered useless and there is no evidence of cannibalization of parts from the old engine(s). For fleets owned or operated by public agencies, SCAQMD may conduct the Post-Inspection through a statistically significant random sample of the vehicles, where the project under this Agreement consists of more than twenty (20) vehicles.

18. MONITORING AND ENFORCEMENT

RECIPIENT agrees to operate the Equipment according to the terms of this Agreement, including the CMP Guidelines, and to cooperate with SCAQMD and CARB in implementation, monitoring, enforcement, and other efforts to assure the emission benefits are real, quantifiable, surplus, and enforceable. RECIPIENT also understands and agrees that in addition to SCAQMD, CARB, as an intended third-party beneficiary of this Agreement, also has the right to enforce the terms of this Agreement to ensure emission reductions are generated. SCAQMD and CARB will seek whatever legal,

equitable and other remedies are available for RECIPIENT's failure to comply with the terms of this Agreement, including the CMP Guidelines.

19. REPORTING REQUIREMENTS

RECIPIENT shall submit reports in accordance with Attachments 1, 1A and 1B, attached here and incorporated herein by reference. Non-compliance with the reporting requirements of this Agreement may result in the implementation of on-site monitoring by the SCAQMD, in addition to any other remedies available to the SCAQMD.

20. SUCCESSORS-IN-INTEREST

This Agreement shall be binding on and inure to the benefit of each party's heirs, executors, administrators, successors, and assigns.

21. EQUIPMENT USAGE

- A. At least 24 months of documented and verified historic usage is required for the baseline engine, such as miles traveled, hours operated, or fuel consumed, and in this case usage is not required to be in the Agreement. If this information is not available, SCAQMD may estimate the usage for the old engine and the estimated usage must be included in the Agreement.
- B. The percentage of each Equipment's annual mileage or engine hours of operation that must be accrued within the geographical boundaries of the South Coast Air Quality Management District, and San Diego, Imperial, Ventura, Santa Barbara, Mojave, and San Luis Obispo Districts, shall be in accordance with Attachment 1 - Statement of Work. Information included in the annual reports required under this Agreement will be used to verify this usage.
- C. RECIPIENT is prohibited from removing the Equipment from service in California during the term of this Agreement, unless the Equipment becomes inoperable through mechanical failure of components or systems, and cannot be repaired or replaced, and such failure is not caused by RECIPIENT's negligence, misuse, or malfeasance. RECIPIENT shall notify SCAQMD within 10 business days if the Equipment is removed from service in California.
- D. If the Equipment usage reported in the annual report does not meet the usage specified in Attachment 1 - Statement of Work, the SCAQMD will flag the project. SCAQMD will take appropriate action to ensure the usage requirement is met, which may include, but is not limited to, recapturing funds in an amount proportional to the unmet usage or extending the project life.

22. FUNDS FROM OTHER SOURCES

- A. In signing this Agreement, RECIPIENT certifies that it has disclosed all other funding sources that it applied for or received for the project described in the Statement of Work. RECIPIENT must notify SCAQMD of additional sources of funding received for the total cost of the project, including any sources that become available after Agreement execution.
- B. RECIPIENT agrees that failure to disclose shall, at a minimum, result in disqualification from receiving funding for that project, the recapture of funds, and may result in RECIPIENT being banned from submitting future applications to any and all Carl Moyer Program solicitations.
- C. RECIPIENT shall return any grant funds it has received in excess of the total project cost.
- D. RECIPIENT certifies that no emission reductions generated by this project shall be used as marketable emission reduction credits, or to offset any emission reduction obligation of any person or entity.

- E. The total amount of public funds received by RECIPIENT for the same project during the term of this Agreement must not exceed eighty-five (85) percent of the project cost. If the total amount of public funds exceeds eighty-five percent, RECIPIENT shall return sufficient amounts to SCAQMD to decrease the total amount of public funds funding the same project to eighty-five percent.

23. PAYMENT

- A. SCAQMD will reimburse RECIPIENT an amount not-to-exceed Thirty-One Thousand One Hundred Fourteen Dollars (\$31,114) in accordance with Attachment 2, Payment Schedule, attached here and incorporated herein by reference.
- B. Payment may be made directly to the vendor upon submission of an itemized invoice from the RECIPIENT requesting that such direct payment be made. If the purchase is being financed, RECIPIENT may choose to have the payment sent directly to the financing company, or provide SCAQMD with proof of payment to the financing company in order for RECIPIENT to be reimbursed. Payments made under this Agreement must be used to reduce the principal owed for the Equipment.
- C. Before any payment can be made, RECIPIENT must submit itemized invoices and the Post-Inspection pursuant to Clause 17.B. must indicate that the project is operational. The itemized invoices must include enough detail to ensure that only eligible project costs are paid, in accordance with the CMP Guidelines. Each invoice must be prepared in duplicate, on company letterhead, and list SCAQMD's Agreement number, period covered by invoice, and RECIPIENT's Social Security Number or Employer Identification Number and submitted to: South Coast Air Quality Management District, Attn: Carl Moyer Agreement Administrator, Technology Advancement, 21865 Copley Drive, Diamond Bar, CA 91765-4178.
- D. Payment under this Agreement is contingent upon receipt of funds from CARB.
- E. SCAQMD may de-obligate from the Agreement, funds that remain unexpended as required in the Agreement, upon thirty (30) days' written notice to RECIPIENT. By signing this Agreement, RECIPIENT acknowledges consent to de-obligation of non-expended funding.

24. SECURITY INTEREST

RECIPIENT hereby grants SCAQMD a security interest in any and all Equipment purchased in whole or in part with funding provided by SCAQMD pursuant to this Agreement. RECIPIENT acknowledges and agrees that SCAQMD shall have all lien rights as a secured creditor on any and all equipment purchased in whole or in part by the RECIPIENT under this Agreement or any amendments thereto. The SCAQMD shall have lien rights in effect until the RECIPIENT satisfies all terms under the Agreement, including but not limited to, the use and reporting requirements. **Accordingly, RECIPIENT further agrees that SCAQMD is authorized to file a UCC filing statement or similar security instrument to secure its interests in the Equipment that is the subject of the Agreement.** In the event RECIPIENT files for bankruptcy protection, RECIPIENT shall notify SCAQMD within 10 business days of such filing.

25. MOBILE SOURCE EMISSION REDUCTION CREDITS

No emission reductions generated by Carl Moyer Program-funded projects may be used as marketable emission reduction credits, or to offset any emission reduction obligation of any person or entity. All validated emission reductions shall be applied toward the State Implementation Plan (SIP) attainment demonstration. All emission reductions generated from the expenditure of Carl Moyer funds may not be converted into tradable credits, and shall be used for the sole purpose of meeting the attainment schedule contained in the applicable SIP. This provision does not apply to infrastructure projects that generate credits in the Low Carbon Fuel Standard program.

26. INTELLECTUAL PROPERTY RIGHTS

Title and full ownership rights to any intellectual property developed under this Agreement shall at all time remain with SCAQMD. Such material is agreed to be SCAQMD's proprietary information.

- A. Rights of Technical Data - SCAQMD shall have the unlimited right to use technical data, including material designated as a trade secret, resulting from the performance of services by RECIPIENT under this Agreement. RECIPIENT shall have the right to use data for its own benefit.
- B. Copyright - RECIPIENT agrees to grant SCAQMD a royalty free, nonexclusive, irrevocable license to produce, translate, publish, use, and dispose of all copyrightable material first produced or composed in the performance of this Agreement.

27. NOTICES

All notices that are required under this Agreement shall be provided in the manner set forth herein, unless specified otherwise. Notice to a party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that party in writing. Notice shall be in writing sent by email, U.S. Mail, express, certified, return receipt requested, or a nationally recognized overnight courier service. In the case of email communications, valid notice shall be deemed to have been delivered upon sending, provided the sender obtained an electronic confirmation of delivery. Email communications shall be deemed to have been received on the date of such transmission, provided such date was a business day (Tuesday-Friday) and delivered prior to 5:30pm Pacific Standard Time. Otherwise, receipt of email communications shall be deemed to have occurred on the following business day. In the case of U.S. Mail notice, notice shall be deemed to be received when delivered or five (5) business days after deposit in the U. S. Mail. In the case of a nationally recognized overnight courier service, notice shall be deemed received when delivered (written receipt of delivery).

SCAQMD: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
Attn: Kevin Perozo, email: kperozo@aqmd.gov

RECIPIENT: Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214
Attn: Brook Yared, email: byared@cvwd.com

28. INDEPENDENT CONTRACTOR

RECIPIENT is an independent contractor. RECIPIENT, its officers, employees, agents, representatives, or subcontractors shall in no sense be considered employees or agents of SCAQMD or CARB, nor shall RECIPIENT, its officers, employees, agents, representatives, or subcontractors be entitled to or eligible to participate in any benefits, privileges, or plans, given or extended by SCAQMD to its employees. SCAQMD will not supervise, direct, or have control over, or be responsible for, RECIPIENT's or subcontractor's means, methods, techniques, work sequences or procedures or for the safety precautions and programs incident thereto, or for any failure by them to comply with any local, state, or federal laws, or rules or regulations, including state minimum wage laws and OSHA requirements. RECIPIENT shall promptly notify SCAQMD of any material changes to subcontracts that affect the Agreement's scope of work, deliverable schedule, and/or payment/cost schedule.

29. PUBLICATION

- A. SCAQMD shall have the right of prior written approval of any document which shall be disseminated to the public by RECIPIENT in which RECIPIENT utilized information obtained from SCAQMD in connection with performance under this Agreement.
- B. Information, data, documents, photographs or reports developed by RECIPIENT for SCAQMD, pursuant to this Agreement, shall be part of SCAQMD's public record unless otherwise indicated. RECIPIENT may use or publish, at its own expense, such information provided to SCAQMD. The following acknowledgment of support and disclaimer must appear in each publication of materials, whether copyrighted or not, based upon or developed under this Agreement.

"This report was prepared as a result of work sponsored, paid for, in whole or in part, by the South Coast Air Quality Management District (SCAQMD). The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of SCAQMD. SCAQMD, its officers, employees, recipients, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. SCAQMD has not approved or disapproved this report, nor has SCAQMD passed upon the accuracy or adequacy of the information contained herein."

30. NON-DISCRIMINATION

In the performance of this Agreement, RECIPIENT shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment on the basis of race, religious creed, color, national origin, ancestry, sex, sexual orientation, age, mental status, medical condition, physical or mental disability, or allow unlawful denial of family and medical care leave, denial of pregnancy disability leave, or reasonable accommodations. RECIPIENT shall comply with the provisions of the California Fair Employment & Housing Act (Government Code Section 12900 et seq.), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), and all administrative rules and regulations issued pursuant to said Acts and Order.

31. ASSIGNMENT AND TRANSFER OF EQUIPMENT

- A. The rights and responsibilities granted hereby may not be assigned, sold, licensed, or otherwise transferred by RECIPIENT without the prior written consent of SCAQMD, and any attempt by RECIPIENT to do so shall be void upon inception.
- B. RECIPIENT agrees to obtain SCAQMD's written consent to any assignment, sale, license or transfer of the Equipment, prior to completing the transaction. RECIPIENT shall inform the proposed assignee, buyer, licensee or transferee (collectively referred to here as "Buyer") of the terms of this Agreement. RECIPIENT is responsible for establishing contact between SCAQMD and the Buyer and shall assist SCAQMD in facilitating the transfer of this Agreement's terms and conditions to the Buyer. **RECIPIENT will not be relieved of the legal obligation to fulfill the terms and conditions of this Agreement until and unless the Buyer has assumed responsibility of this Agreement's terms and conditions through an executed agreement with SCAQMD.**

32. NON-EFFECT OF WAIVER

The failure of RECIPIENT or SCAQMD to insist upon the performance of any or all of the terms, covenants, or conditions of this Agreement, or failure to exercise any rights or remedies hereunder, shall

not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions, or of the future exercise of such rights or remedies, unless otherwise provided for herein.

33. ATTORNEYS' FEES

In the event any action is filed in connection with the enforcement or interpretation of this Agreement, each party shall bear its own attorneys' fees and costs.

34. FORCE MAJEURE

A party shall not be liable or deemed to be in default for any delay or failure in performance under this Agreement or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor or transportation, or any similar cause beyond the party's reasonable control.

35. SEVERABILITY

In the event that any one or more of the provisions contained in this Agreement shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this Agreement, and the Agreement shall then be construed as if such unenforceable provisions are not a part hereof.

36. HEADINGS

Headings on the Clauses of this Agreement are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Agreement.

37. SIGNATURES

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute together one and the same instrument. Further, the parties agree that this Agreement or any counterpart may be executed and delivered by DocuSign, or by transmitting a manual signature by fax or .pdf, which shall have the same force and effect as copies executed and delivered with original manual signatures.

38. GOVERNING LAW

This Agreement shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this Agreement shall be Los Angeles County, California.

39. CITIZENSHIP AND ALIEN STATUS

A. RECIPIENT warrants that it fully complies with all laws regarding the employment of aliens and others, and that its employees performing services hereunder meet the citizenship or alien status requirements contained in federal and state statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986 (P.L. 99-603). RECIPIENT shall obtain from all covered employees performing services hereunder all verification and other documentation of employees' eligibility status required by federal statutes and regulations as they currently exist and as they may be hereafter amended. RECIPIENT shall have a continuing obligation to verify and document the continuing employment authorization and authorized alien status of employees performing services under this Agreement to ensure continued compliance with all federal statutes and regulations.

Notwithstanding the above, RECIPIENT, in the performance of this Agreement, shall not discriminate against any person in violation of 8 USC Section 1324b.

- B. RECIPIENT shall retain such documentation for all covered employees for the period described by law. RECIPIENT shall indemnify, defend, and hold harmless SCAQMD, its officers and employees from employer sanctions and other liability which may be assessed against RECIPIENT or SCAQMD, or both in connection with any alleged violation of federal statutes or regulations pertaining to the eligibility for employment of persons performing services under this Agreement.

40. SUBCONTRACTOR APPROVAL

If RECIPIENT intends to subcontract all or a portion of the work under this Agreement, then RECIPIENT must first obtain written approval from SCAQMD's Executive Officer or designee prior to subcontracting any work. Such prior approval applies only to subcontractors not already included in Attachment 1, Statement of Work. Any material changes to the subcontract(s) that affect the scope of work, deliverable schedule, and/or payment/cost schedule shall also require the prior written approval of the Executive Officer or designee. No subcontract charges will be reimbursed unless the required approvals have been obtained from SCAQMD.

41. TAX IMPLICATIONS FROM RECEIPT OF CARL MOYER PROGRAM FUNDS

RECIPIENT is advised to consult a tax attorney regarding potential tax implications from receipt of funds under the Carl Moyer Program.

42. DISCLAIMER OF WARRANTY

The decision to participate in the Carl Moyer Program and to purchase Program-eligible Equipment is RECIPIENT's decision. **SCAQMD does not make any express or implied warranty of merchantability, fitness for a particular purpose or otherwise, quality or usefulness of the technology or Equipment.** SCAQMD will not be financially responsible or otherwise liable for the installation or performance of the Equipment.

43. ENTIRE AGREEMENT

This Agreement represents the entire agreement between RECIPIENT and SCAQMD. There are no understandings, representations, or warranties of any kind except as expressly set forth herein. No waiver, alteration, or modification of any of the provisions herein shall be binding on any party unless in writing and signed by the authorized representative of the party against whom enforcement of such waiver, alteration, or modification is sought. No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

44. AUTHORITY

The signator hereto represents and warrants that he or she is authorized and empowered and has the legal capacity to execute this Agreement and to legally bind RECIPIENT both in an operational and financial capacity and that the requirements and obligations under this Agreement are legally enforceable and binding on RECIPIENT.

[THE REMAINDER OF THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK]

Agreement No. **C24177**
Carl Moyer Program

IN WITNESS WHEREOF, the parties to this Agreement have caused this Agreement to be duly executed on their behalf by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

CRESCENTA VALLEY WATER DISTRICT

DocuSigned by:
Vanessa Delgado
By: 80DA596BAE294BD...
Vanessa Delgado, Chair, Governing Board

DocuSigned by:
Carla Dillon
By: 5644E9D4A2054DA...
Name: CARLA DILLON
Title: Director of Engineering and Operations

Date: 6/20/2024

Date: 6/18/2024

APPROVED AS TO FORM:
Bayron T. Gilchrist, General Counsel

By: *Bayron T. Gilchrist*

//Moyer Boilerplate
Updated: January 9, 2024



ATTACHMENT 1

**STATEMENT OF WORK
CRESCENTA VALLEY WATER DISTRICT
FY 2022-2023 CARL MOYER / SOON PROGRAM**

The purpose of this Agreement is to reduce emissions from the replacement or repower of an older off-road, heavy-duty engine/equipment with a lower or zero-emission engine/equipment, as specified in Table 1.

Table 1: Project Information

Project Type	Old Equipment			Specifications for Replacement Equipment	
	Equipment Description (Type, Make, Model)	Unit ID	Old Engine Emissions Tier*	Replacement Engine Emissions Tier*	% Operation in SCAQMD Jurisdiction
Replacement	John Deere 410J Loader/Backhoe	e11*97/68G A	Tier 2	Tier 4 Final	100

*Based on CARB Executive Order and 2017 Carl Moyer Guidelines.

Task 1: Inspections

- 1.1 RECIPIENT shall make each old engine/equipment identified in Table 1 available to SCAQMD staff for a pre-inspection prior to any work commencing to implement this Agreement. All equipment must be in operational condition. RECIPIENT shall provide access to equipment identification numbers, engine serial numbers and other equipment specifications to verify eligibility of the engine(s) and equipment.
- 1.2 RECIPIENT shall make each replacement or repowered engine(s), or equipment identified in Table 1 available to SCAQMD staff for a post-inspection to verify that it meets all requirements of the Carl Moyer Program.
- 1.3 RECIPIENT shall ensure that a salvage inspection of each old engine/equipment in Table 1 is performed by SCAQMD staff or by an SCAQMD-approved dismantler to verify the engine/equipment has been dismantled in accordance with the Carl Moyer Program Guidelines. Destruction of the old engine/equipment may occur at an SCAQMD-approved dismantling facility or another facility in conjunction with an SCAQMD salvage inspection.
- 1.4 RECIPIENT shall notify the SCAQMD in writing upon delivery of the old engine/equipment in Table 1 to an SCAQMD-approved dismantler or other facility for dismantling. This notification shall include date of delivery/date of receipt by the dismantler, address of the dismantling site, and the scheduled date for dismantling. If RECIPIENT delivers the old engine/equipment to a dealer, RECIPIENT shall ensure the dealer delivers the old engine/equipment to an

SCAQMD-approved dismantler within 30 calendar days of the date that the engine/equipment was turned in to the dealer by the RECIPIENT.

Task 2: Procurement of Replacement or Repowered Engine(s) or Equipment

- 2.1 RECIPIENT shall provide documentation of procurement of replacement or repowered engine(s) or equipment that meet the emission standards specified in Table 1. This documentation shall include, at a minimum, an itemized invoice, including identification of any taxes, delivery fees and other costs, with sufficient details to ensure that only completed and eligible projects costs are reimbursed, identification of other sources and amounts of funding (if any), and engine/equipment information including but not limited to engine/equipment make, model, model year, warranty coverage and a copy of the CARB Executive Order for each procured engine. This documentation shall be submitted to SCAQMD at the time of invoice submittal.
- 2.2 Notwithstanding the above requirement, RECIPIENT is responsible for determining that the replacement or repowered engine(s) or equipment to be purchased complies with all applicable federal, state, and local air quality rules and regulations. The replacement or repowered engine(s) must be certified by CARB to meet the emissions level specified in Table 1, as documented by the CARB Executive Order required under Task 2.1.
- 2.3 If RECIPIENT determines that it will be unable to procure or install the replacement or repowered engine(s) or equipment identified in Table 1, RECIPIENT shall notify SCAQMD in writing as soon as possible so that SCAQMD may re-evaluate the project and determine if an amendment to the Agreement is needed.

Task 3: Operation of Equipment

- 3.1 RECIPIENT shall place the repowered or replacement equipment meeting the emissions level specified in Table 1 into regular operating service and shall inform the SCAQMD where the equipment is domiciled within the geographical boundaries of the SCAQMD.
- 3.2 RECIPIENT agrees to operate the repowered or replacement equipment within the geographical boundaries of the SCAQMD for the percentage of time specified in Table 1 based on annual usage.
- 3.3 RECIPIENT agrees to make operational information for the replacement or repowered equipment identified in Table 1 available, upon reasonable notice, to SCAQMD or CARB staff during the life of the project. This information may include, but is not limited to, operational records documenting the hours of operation, hour-meter readings and annual reports.

- 3.4 The expected annual usage of the new engine/equipment are specified in Table 2 below.

Table 2: Annual Usage

Old Equipment/Engine Unit#	Replacement Equipment Annual Usage (hours/year) *	Project Life (years)
e11*97/68GA	884	5

*If the average annual usage of the engine/equipment over a 3-year period falls below 70% of the annual usage specified in Table 2, the SCAQMD may, at its discretion, consider taking action to address the underutilization. RECIPIENT shall coordinate with SCAQMD staff to develop actions to ensure that the contracted emission reductions are realized.

Task 4: Destruction of Existing Equipment/Engine(s)

- 4.1 RECIPIENT shall ensure that SCAQMD is notified within 10 days after destruction so that a salvage inspection can be performed by SCAQMD. The purpose of the salvage inspection is to verify the old engine/equipment was dismantled in accordance with the Carl Moyer Program Guidelines.
- 4.2 RECIPIENT shall ensure that no funding under this Agreement is used to cover costs associated with transporting the engine/equipment to a dismantler or the dismantling of the engine/equipment.
- 4.3 RECIPIENT shall ensure that the old (existing) engine/equipment identified in Table 1 is destroyed within 60 calendar days of being replaced.
- 4.4 RECIPIENT shall ensure that the old engine/equipment identified in Table 1 is destroyed and rendered useless, by cutting a 3-inch minimum, irregularly shaped hole in the engine block at the narrowest point and a section of the oil pan flange must be removed as part of the hole or have a line cut through it that connects the hole. For replacement projects, the RECIPIENT shall also ensure the main body of the old equipment is rendered inoperable and unrepairable as specified in the Carl Moyer Program Guidelines.
- 4.5 RECIPIENT shall obtain a certificate of destruction for each old engine/equipment identified in Table 1, or other similarly approved documentation from the dismantler, for submittal to the SCAQMD within 10 days of destruction.

Task 5: Reporting

- 5.1 RECIPIENT shall provide annual reports, as described under Deliverables in Attachment 1B.

- 5.2 RECIPIENT shall notify SCAQMD in writing in advance of the sale of the replacement or repower engine(s) or equipment identified in Table 1 in accordance with the ASSIGNMENT AND TRANSFER OF EQUIPMENT clause of this Agreement.

ATTACHMENT 1A
PROJECT MILESTONES
CRESCENTA VALLEY WATER DISTRICT
FY 2022-2023 CARL MOYER / SOON PROGRAM

Milestone

Due Date

All Equipment In-Service

December 31, 2024

All Invoices Due No Later Than

January 31, 2025

Annual Project Progress Reports Due

January 31, 2026

January 31, 2027

January 31, 2028

January 31, 2029

and

January 31, 2030

ATTACHMENT 1B
DELIVERABLES
CRESCENTA VALLEY WATER DISTRICT
FY 2022-2023 CARL MOYER / SOON PROGRAM

RECIPIENT shall complete and submit to SCAQMD annual reports (using Attachment 3 Annual Report Form) for the term of the project life identified in Table 2. Each submitted report shall be stapled, not bound, printed in black ink, double-sided type, on an 8-1/2 by 11 inch page, and shall include camera-ready originals.

1. Two stapled copies of each annual report. This document shall be considered in the public domain, in conformance with the California Public Records Act (Government Code Section 6250 et seq.). The annual report shall include, but not be limited to, the following:
 - a. Reference to SCAQMD agreement number and title of project.
 - b. A description of the funded equipment, including:
 - Unit ID#
 - Equipment make and model
 - Engine make, model, horsepower, and serial number.
 - c. A description of the operation of the equipment, including:
 - Estimated percentage of time the equipment has been operated within the SCAQMD geographical boundaries during the reporting period.
 - Engine hours operated during the report period (including the date of each hour meter reading).
 - Discussion of equipment performance, including operational performance and any major repairs and maintenance performed.
 - d. Problems - a discussion of significant problems encountered during the year and how they were resolved.

ATTACHMENT 2

**PAYMENT SCHEDULE
CRESCENTA VALLEY WATER DISTRICT
FY 2022-2023 CARL MOYER / SOON PROGRAM**

RECIPIENT shall be reimbursed up to the amount outlined in Table 3 below for each replacement or repowered engine(s) or equipment. For each old engine/equipment, the SCAQMD payment shall not exceed 80% of the eligible costs of each replacement or exceed 85% of the eligible cost of each repowered engine(s) or the amounts identified in Table 3 below, whichever is less. RECIPIENT will be reimbursed after passing a post-inspection, submitting all the required documents for payment, including invoices, proof of payment and destruction, and verification of delivery, acceptance and placement into service. Payment will not be made if RECIPIENT has any outstanding CARB violations associated with the owner's entire fleet(s) or not in compliance with all applicable federal, state, and local air quality rules and regulations.

Table 3: Maximum Reimbursement Amount

Unit ID	Old Equipment Description	Maximum Award Amount Per Equipment to be Reimbursed by SCAQMD	Funding Source
e11*97/68GA	John Deere 410J Loader/Backhoe	\$31,114	Carl Moyer Program

Total Not-To-Exceed: \$31,114

Payments will be disbursed after evidence of old engine/equipment destruction is submitted and a satisfactory post-inspection is conducted by SCAQMD staff.

ATTACHMENT 3



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
CARL MOYER PROGRAM
ANNUAL REPORT FORM

RECIPIENT NAME: _____ **SCAQMD AGREEMENT #:** _____

ADDRESS: _____ **EMAIL:** _____

PHONE: _____

REPORTING PERIOD (MM/DD/YYYY TO MM/DD/YYYY): _____

Equipment ID#	Location of Equipment (City & Zip)	% of Time in SCAQMD Boundaries	INITIAL Engine Hour Meter Reading		FINAL Engine Hour Meter Reading		Engine Hours of Operation (FINAL Hour Meter Reading minus INITIAL Hour Meter Reading)
			Date of Reading	Hour Meter Reading	Date of Reading	Hour Meter Reading	

Please describe any major repairs, maintenance, unforeseen circumstances or problems that significantly affected the operation of the equipment:

I, the undersigned, certify that the above information is true and correct.

PRINT NAME: _____ **SIGNATURE:** _____

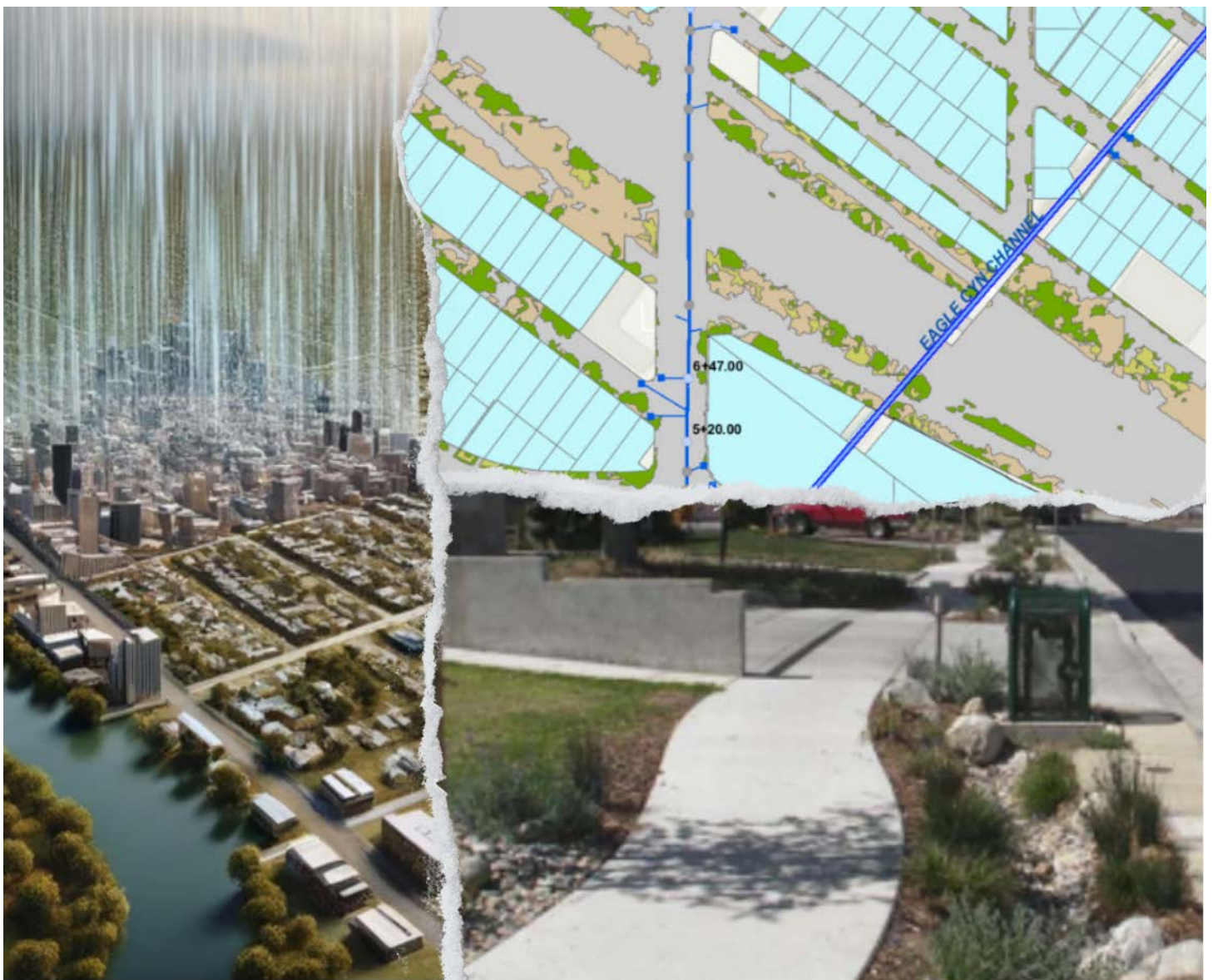
TITLE: _____ **DATE:** _____

Data-Driven Resource Optimization and Planning System (*DROPS*)



A Proposal to the Metropolitan Water District
of Southern California
Future Supply Actions Funding Program

February 5, 2024



A. Executive Summary Letter

"If you take care of your drops, the gallons take care of themselves."

Dear Mr. Warren Teitz and Selection Panel Members:

We are writing to submit our proposal for a tool designed to rapidly and materially shift the trajectory of water management strategies in the Verdugo and Raymond Groundwater Basins. As water managers in regular conversation with our peers across Southern California, we are particularly excited about the relative ease with which the benefits of our efforts in this project can be shared with Metropolitan's other member agencies and throughout the rest of California.

We know that water management is a holistic endeavor with multiple approaches, including stormwater management and groundwater recharge. There is increasingly more related funding and wide margins for growth in these areas due to persisting barriers such as the need for feasibility studies that are prohibitive in terms of time and financial cost for retail agencies.

Data-Driven Resource Optimization and Planning System ("*DROPS*") is a pioneering tool that integrates advanced data analytics with artificial intelligence to enhance water management capabilities. Specifically, *DROPS* achieves previously unattained levels of accuracy in terms of identifying impervious areas by triangulating aerial imagery, topographical data, remote-sensing data, and environmental databases and supplementing those datasets with analysis and insights from AI integration.

As mentioned above, most retail agencies are hard pressed for the staff or budget resources to see a larger-scale stormwater capture or groundwater recharge project from concept to implementation. As an open, collaborative analytics tool, *DROPS* represents an accessible and low-cost planning resource to identify potential sites for green infrastructure that can be designed and completed faster, while other, longer-term efforts are pursued and implemented in parallel. So often, however, innovative tools and information such as *DROPS* are not effectively channeled through established channels to make sure the information is shared and effectively and easily used by others such as our sub-agencies.

Our proposition is to demonstrate the power of *DROPS* with projects benefiting the Verdugo and Raymond basins while scaling and customizing the tool through an established and trusted industry association – the California Data Collaborative – to ensure that other retail agencies can enjoy the same benefits from decision-making and

improved water resource planning to measuring program performance and complying with State regulations.

We believe that developing *DROPS* and scaling its benefits will play a pivotal role in enhancing the region's ability to adapt to climate change and ensure a secure water future. We appreciate the opportunity to present this proposal and look forward to the possibility of collaborating with the Committee to bring this vision to fruition.

"[We are] informed and believe that the information contained in this proposal is true and that the supporting data is accurate and complete."

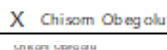
Sincerely,



Nina Jazmadarian
General Manager –
Foothill Municipal Water
Agency



Stacie Takeguchi
Assistant General
Manager – Water,
Pasadena Water and
Power



Chisom Obegolu
Assistant General
Manager – Water
Glendale Water and
Power



James Lee
General Manager –
Crescenta Valley Water
District

Name of Proposal Water Resource Category	Stormwater
Member Agency Name (As it appears on W-9 Tax form)	Foothill Municipal Water District
Federal ID	95-6005024
Address (City, State and Zip)	4536 Hampton Road La Cañada Flintridge, CA 91011
Main Telephone	818.790.4036 X 102
Contact Name	Nina Jazmadarian
Contact Telephone	818.790.4036 X 102
Contact Email	nina.jaz@fmwd.com
Website Address	https://www.fmwd.com/home

B. Entities Participating in Proposal

Member Agencies



Foothill Municipal Water District

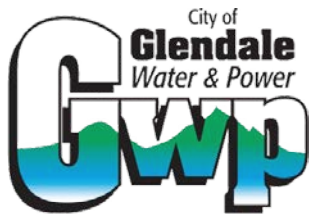
Foothill Municipal Water District (FMWD) was incorporated on January 7, 1952 to help meet the increased water needs of the rapidly growing foothill communities following the end of World War II. Water leaders, and ultimately voters, saw the need to supplement local groundwater with water imported by the Metropolitan Water District of Southern California (MWD). Foothill officially joined MWD in 1953 and operates as one of its 26 member agencies.



PASADENA
Water & Power

Pasadena Water and Power

Pasadena Water and Power is a community enterprise that has always been essential to the health, economy and quality of life in our city. Today, PWP provides electricity to more than 65,000 customers within Pasadena. We also deliver water to almost 38,000 households and businesses in Pasadena and adjacent communities in the San Gabriel Valley.



Glendale Water and Power

With a heritage that spans a century, Glendale Water & Power is a municipal utility that serves the citizens and community of Glendale, California including over 34,000 water and 89,000 electric customers. Glendale Water & Power's vision is to provide our customers with reliable and sustainable water and power services that are cost effective and innovative.

Partnering Agencies and Entities



Crescenta Valley Water District

Crescenta Valley Water District (CVWD) is located in the Crescenta Valley area of Los Angeles County in the foothills of the San Gabriel Mountains, between the San Fernando and San Gabriel valleys. The District provides water distribution and sewage collection within its boundaries to the unincorporated communities of La Crescenta, Montrose, and Verdugo City as well as a small portion of the City of La Canada-Flintridge. The District serves an area of approximately 4 square miles in relatively steep terrain ranging from 1,200 feet to almost 3,000 feet above sea level. The District currently provides water to over 8,000 accounts representing a population of approximately 32,000.



California Data Collaborative

California Data Collaborative (CaDC) is a nonprofit coalition of water supply agencies in California, counting Metropolitan and twelve of its Member Agencies and retailers as members. For eight years, the CaDC has brought together tech-forward water utilities to invest in the design and development of open-source data analysis software tools that inform its member agencies' operational decisions.

C. Key Individuals

Name / Title / Agency / Contact Information	Relevant Experience
ROLE: PARTICIPATING AGENCY LEADS	
Nina Jazmadarian General Manager <i>Foothill Municipal Water District</i> 4536 Hampton Road La Cañada Flintridge, CA 91011 818.790.4036 x102 Nina.jaz@fmwd.com	Nina Jazmadarian is General Manager at Foothill Municipal Water District. Nina oversees the operations and maintenance activities of the District to ensure that good quality water is reliably delivered to customers. This oversight includes the administrative, planning, engineering and financial aspects of the District. Nina also oversees outreach to the public including communications for water conservation. Nina has over 30 years of experience in the water industry involving water resources management, rates structures, conjunctive use and drought management plans among other subject matters in the field of water. Nina began her career at the Metropolitan Water District of Southern California where she managed various storage agreements and the various water programs that Metropolitan had. She assisted in the development of the 1994 rate structure and administered the 1991 MWD allocation plan. She also successfully negotiated several complex water storage agreements and wheeling agreements. Prior to becoming General Manager for Foothill, Nina worked as a consultant where she supported a number of Southern California water agencies in the development of rate structures, water storage programs and the feasibility of developing alternate water supplies. She also developed a water resources master plan for one of the larger water agencies in Southern California.
Stacie Takeguchi Assistant General Manager - Water <i>Pasadena Water and Power</i> 613 E. Broadway, Glendale, CA 91206 stakeguchi@cityofpasadena.net 626.744.4005	Stacie Takeguchi comes to Pasadena Water and Power with more than 20 years of experience in the water industry. Prior to joining PWP, she worked for The Metropolitan Water District of Southern California for 15 years, serving in various capacities including leading regional drought action planning efforts. Additionally, she has experience in managing innovative stormwater multi-use projects at the County of Los Angeles Department of Public Works. Ms. Takeguchi has a bachelor's degree from Tulane University and is a licensed engineer in the State of California.
Chisom Obegolu Assistant General Manager - Water <i>Glendale Water and Power</i> 613 E. Broadway, Glendale, CA 91206	Chisom Obegolu is the Chief Assistant General Manager of Water Services at Glendale Water and Power. He is responsible for managing the water operational and business functions, which includes system operations, planning and water resources management. He oversees Water Engineering, Water Operation, Water Distribution, and Water Quality. Among his primary duties is to implement the water strategic plan and initiatives.

818-550-4400 cobegolu@glendaleca.gov	
James Lee General Manager <i>Crescenta Valley Water District</i> 2700 Foothill Blvd., La Crescenta CA 91214 818.236.3925 jlee@cvwd.com	James Lee pursues creative ways to ensure safe and reliable water for California, including for Crescenta Valley Water District where he serves as General Manager. He is responsible for developing and implementing the District's short and long-term strategic plan goals that serve the community and region. Prior to joining the District, he served water and wastewater agencies through public finance on both the financial advisory and investment banking sides. He also served agencies with utility rate studies, budget modeling, and organizational development. He serves in leadership for the Public Water Agencies Group and the California Data Collaborative. He holds a Bachelor of Arts in Economics-Accounting from Claremont McKenna College and a Master of Public Policy from University of Southern California's Price School of Public Policy.
ROLE: CO-PROGRAM MANAGERS	
Michael Le Water Program Technician <i>Foothill Municipal Water District</i> 4536 Hampton Road La Cañada Flintridge, CA 91011 818.790.4036 mle@fmwd.com	Michael Le is the Water Program Technician at FMWD. Michael has more than 7 years of experience working in the public water sector. Michael graduated with a Bachelor's Degree in Accounting from Cal State Long Beach. In Michael's free time - he enjoys traveling, the great outdoors and motorsports.
Patrick Atwater Regulatory and Public Affairs Manager <i>Crescenta Valley Water District</i> 2700 Foothill Blvd., La Crescenta CA 91214 (818)248-3925 patwater@cvwd.com	Patrick Atwater has a decade and a half of experience managing data analytics projects in water resources, public finance, climate adaptation, and other civic challenges. He serves as the Regulatory and Public Affairs Manager for Crescenta Valley Water District, the hometown where he grew up. He is the author of the books A New California Dream, California Revolution, and The Big Drought. His data work has been featured in the Annals of Applied Statistics as well as numerous industry outlets including Harpers magazine and KNX news radio. He holds a Bachelor's Degree in Mathematics and Philosophy, Politics and Economics from Claremont McKenna College and a Master's Degree focused on data science for cities from NYU.
ROLE: TECHNICAL LEADS	
Christopher Tull Chief Data Officer <i>California Data Collaborative</i>	Christopher Tull is a public technologist, nonprofit leader, and data scientist specializing in using data to improve operations, program effectiveness, and efficiency within water agencies. He worked in several roles over the years with the California Data Collaborative, most recently as Chief Data Officer where he leads the organization, and before that as lead data scientist where he designed and built data infrastructure to process, store, and analyze metered water use data from water utilities

23564 Calabasas Road Suite 201, Calabasas, CA 91302 Phone: (805) 330-1196 chris@thecadc.org	across California, including hourly AMI data. He has an M.S. in Urban Informatics from New York University and a B.S. in Computer Science and Mathematics from CSU Channel Islands.
Dr. Brianna R. Pagán Deputy Manager <i>NASA Goddard Earth Sciences Center Data and Information Services Center</i> Adjunct Professor <i>Loyola Marymount University</i> Phone: (805) 280-3778 briannapagan@gmail.com	Dr. Brianna Pagán has over 10 years experience working on local and international environmental issues. Her research and expertise is in remote sensing, eco-hydrology and climate, also receiving the prestigious American Geophysical Union Horton Hydrology Grant in 2018 for her doctoral research on estimating plant transpiration from satellites. Dr. Pagán is currently a Deputy Manager at NASA Goddard Earth Sciences Center Data and Information Services Center and Adjunct Professor at Loyola Marymount University's College of Science and Engineering. At NASA, she leads a team of 70+ software engineers and domain experts, orchestrating the transition to cloud-based infrastructure for distributing satellite and model data to the public. Previously as the Director of Remote Sensing at SpaceSense.ai, she led the research and development for new agri-tech products managing a team of geospatial scientists, machine learning experts and software developers. Dr. Pagán has also worked at the Flemish Institute for Technological Research as a hydroinformatics researcher and the Long Beach Water Department in California as a water conservation specialist. She continues to provide remote sensing consulting services to water agencies.

D. Proposal Description

Overview of the Problem

Climate change projections^{1 2} for California indicate increasingly variable weather swings in a state that already faces the highest precipitation variability in the nation³. This “climate whiplash” often leaves communities prone to flooding and poor water quality during wet years while struggling with water availability and groundwater overdraft during dry years. The ability to effectively manage and capture stormwater when it does arrive so that it can be stored and used when needed is therefore increasingly important for the entire state, with California’s August 2022 Water Supply Strategy calling for an additional 250,000 acre-feet of stormwater capture in cities and towns by 2030⁴. This need is

¹ <https://energyinnovation.org/2023/03/29/atmospheric-river/>

² Swain, D. L., Langenbrunner, B., Neelin, J. D., & Hall, A. (2018). Increasing precipitation volatility in twenty-first-century California. *Nature Climate Change*, 8(5), 427-433.

³ [https://cwc.ca.gov/-/media/CWC-](https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf)

[Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf](https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf)

⁴ <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf>

especially great in Southern California where the increased stress on imported water supplies from Northern California and the Colorado River have highlighted the need for local and regional solutions to increasing water supplies. In addition, municipal separate storm sewer permit (MS4) requirements come with high costs.

Despite the importance of implementing multi-benefit stormwater capture projects that contribute to aquifer recharge and support local supply production, water agencies may not realize the full potential of distributed stormwater projects throughout their service area. This is often due to a lack of understanding and visibility into the benefits and possible locations of projects and may lead water managers to focus their attention on a few large water supply projects instead of allocating resources towards a larger number of smaller distributed projects.

In order to increase awareness of and visibility into the many benefits of distributed, low impact development (LID) projects, this proposal outlines the implementation of the Data-Driven Resource Optimization and Planning System (*DROPS*), a low-cost planning tool, designed to efficiently site and estimate the benefits of distributed stormwater capture and filtration projects, including the implementation of green streets and California Friendly® vegetation. In addition to supporting the siting of projects, the tool will also estimate multiple benefits such as groundwater recharge for local supply, runoff reduction for flood control, and water saved in situations where the project is sited to replace irrigated (often non-functional) turfgrass. This innovative approach will enable cost-effective resource planning and support the potential development of stormwater projects in a way that can supplement or replace traditional, expensive feasibility studies.

Need in the Foothill Region

The Verdugo and Raymond groundwater basins provide water resources for Foothill Municipal Water District's member agencies, including Crescenta Valley Water District, along with Glendale Water and Power and Pasadena Water and Power. The Verdugo Basin has declined over the past decades since CVWD built sewer systems, lowering the water recharge from septic systems. In addition, the District has further developed and increased the amount of impervious surface. As a result, groundwater production today is approximately two thirds of its typical yield a decade ago.

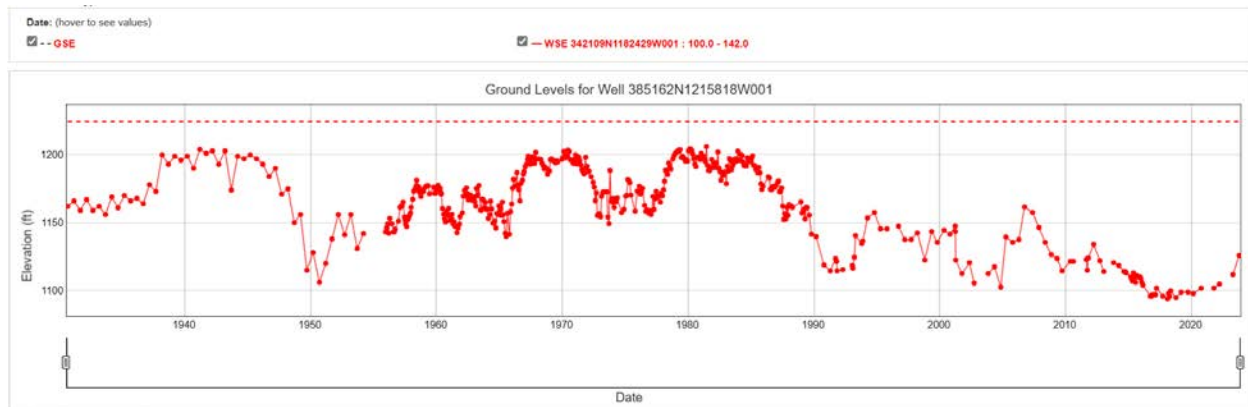


Figure 1. Historical groundwater elevations at a well in the Verdugo Basin from 1930 to present. Structural declines in water levels are visible in the late 1980s and again starting in 2014, with a slight rebound visible in October 2023 thanks to dramatic levels of precipitation that year. Source: https://cww.water.ca.gov/map/waterlevel_detailed?siteCode=342109N1182429W001

The *DROPS* pilot in the Verdugo and Raymond basins will test the hypothesis that an open, public facing data analytics tool can enable increased collaboration and coordination. This transparency is pivotal in building trust and fostering partnerships across different sectors, including government agencies, environmental groups, community organizations, and private entities. By providing access to a shared pool of data, *DROPS* enables these stakeholders to collectively analyze, understand, and respond to water management challenges with a unified approach. The tool's comprehensive data encompasses various aspects of water resources, climate patterns, and urban infrastructure, allowing for a holistic view of the water management landscape.

Overview of the Tool

The CaDC has had proven success developing and deploying software planning tools to support water management decisions, including software tools for evaluating the savings of turf replacement projects, targeting outreach for efficiency programs, and integrating sensor data for watershed management. Uniquely, the CaDC operates as a co-op run by and for the benefit of water managers, making it well-positioned to develop a regional planning tool that benefits many stakeholders.

This project proposes to develop a simple, user-friendly web-based planning tool to aid siting of distributed stormwater capture projects. The planning tool will calculate metrics to prioritize potential sites by compiling the necessary geospatial data at scale to more efficiently implement the Rational Method - a popular method for engineers to calculate peak runoff. Traditionally, engineers spend either a great deal of time compiling the necessary information to do these calculations or they rely on closed source software

(e.g. the HydroCalc Calculator⁵) that uses primarily static data inputs, neglecting the ever-increasing availability of high resolution and dynamic geospatial information.

There are many data sets that are either publicly available or that may be derived from public data which are relevant for siting LID projects and which can be incorporated into *DROPS*. The exact combination of datasets and how they will interact to aid project prioritization will be determined through early user interviews and feedback as part of our agile software development methodology (described in Section H). Datasets built into the tool may include:

- **Remote sensing:** classifications of aerial and satellite imagery to identify impervious areas, as well as irrigated turf that may be nonfunctional;
- **Slope angle:** topographic data provides context for calculating runoff and stormwater capture potential;
- **Historical Rainfall Depth:** precipitation data provides context for calculating runoff and stormwater capture potential;
- **Parcel land use:** shows whether the parcel is residential, a school, commercial, a publicly owned median etc. and provides context on stormwater capture potential;
- **Urban Planning and Zoning Records:** Municipal records of urban planning, construction, and zoning can provide historical and current data on the extent of impermeable surfaces, and identify commercial areas subject to nonfunctional turf bans;
- **Stormwater Infrastructure:** overlaying the location of current stormwater infrastructure can help prioritize projects in areas that may be underserved by drains, or which are well placed to divert, slow, or capture water before it enters the storm sewer system;
- **Neighborhood Income and Disadvantaged Communities (DAC):** siting projects in DACs can help both to alleviate potential inequalities in access to municipal services as well as allow projects to tap into sources of state and federal funding that might not otherwise be accessible; and
- **Other data sources:** such as groundwater and hydrologic models from agencies participating in the study will be included where possible to help quantify groundwater yield based on enhanced stormwater capture.

Alongside the siting of projects with a primary benefit of slowing, capturing, and treating stormwater, one unique value proposition of *DROPS* is the potential to align the creation of distributed LID projects with the removal of nonfunctional turf grass irrigated by potable water. Per AB1572, signed into law by Governor Newsom on October 13, 2023, the “use of potable water for the irrigation of nonfunctional turf located on commercial, industrial,

⁵ https://pw.lacounty.gov/wmd/dsp_LowImpactDevelopment.cfm

and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited" The implementation deadlines for the law phase in as of January 2027 for state and local government properties, January 2028 for all other institutional properties and all commercial and industrial properties, January 2029 for HOAs, and January 2031 (or later, depending on availability of funding) for publicly owned properties in a DAC.

This multibenefit alignment means that *DROPS* can build upon prior work by both MWD and the CaDC. MWD recently developed a turf dashboard which was provided to member agencies to aid in the identification of nonfunctional turf. *DROPS* could build on the data underlying this dashboard to find intersections between nonfunctional areas that will need replacing and opportunities for LID projects. Furthermore, CaDC, with funding from an Innovative Conservation Program (ICP) grant, developed in 2018 a tool called Flip My Lawn which estimated the water savings, carbon sequestration, and biodiversity benefits of converting from turf grass to California Native landscaping. These same calculations could be built into *DROPS* to further quantify the co-benefits of replacing turf grass with landscaping that incorporates both native plants and LID design elements.

As part of the testing of the tool, these planning measurements will be validated with field surveys and visits to potential sites. The tool will be developed iteratively in coordination with water management professionals across the CaDC's membership to calibrate and provide quality assurance of the model outputs.

E. Criteria One – Reduces Barriers to Future Production

Many small agencies lack the awareness and capacity to plan for green infrastructure projects. *DROPS*'s data analytics and predictive modeling capabilities lower the cost to plan and thus develop distributed stormwater capture projects, helping to enable optimal management of the basin's resources, ensuring a steady and sustainable local water supply.

The *DROPS* tool significantly contributes to increasing future local supply potential in the Verdugo, Raymond and other groundwater basins. By supporting stormwater capture projects that increase groundwater recharge and raise water levels in the basin, *DROPS* facilitates greater reliance on local water supplies. Greater levels of recharge have the ability to increase the sustainable yield of groundwater basins.

This is crucial for regions like Southern California given aforementioned climate realities, and *DROPS* will support resource resiliency and planning for climate change-driven uncertainty in many ways. The ability to site projects where they could most effectively

slow and capture storm flows during intense precipitation events has the potential to reduce and prevent flooding, which is a major climate risk that is projected to increase as the planet warms. Furthermore, the ability to store greater volumes of water locally during wet years so that it may be withdrawn during dry years will increase resilience to sustained periods of drought and the ongoing aridification of the Colorado River Basin which are both projected to increase in severity due to climate change. The ability to increase local storage also aligns with MWD's 2020 IRP Needs Assessment which highlighted that "... storage capacity, put/take capabilities, and accessibility are critical considerations in maintaining reliability under the region's current and future conditions...".

DROPS aligns with existing and planned conservation investments to lower the demand on potable water supplies. By integrating data and insights from conservation efforts, *DROPS* optimizes water use and supports lowering water demand through CA friendly landscaping as part of multi-benefit green infrastructure projects that also capture stormwater. This alignment helps to turn the same thirsty landscapes that are often the target of turf removal projects into opportunities for increasing local supplies - a crucial step for sustainable water management.

A significant advantage of *DROPS* is its ability to lower the costs associated with feasibility studies for future water projects. By integrating relevant data, making it easily accessible, and then supporting comprehensive data analysis and predictive insights, *DROPS* reduces the 'soft costs' often associated with these studies. The open-source nature of the tool supports sharing water management insights and lessons learned, further reducing the financial burden on communities and organizations looking to develop new water supplies.

F. Criteria Two – Regional Benefit / Applicability

The foothill region includes a diverse array of communities. While the Verdugo and Raymond Basins serve as pilots for the implementation of *DROPS*, the tool's data sets and methodologies are scalable to neighboring communities and other parts of the Metropolitan Water District (MWD). For example, aerial imagery classifications, digital elevation data, parcel data, and demographic data, are available throughout MWD's service area. Others, such as stormwater infrastructure locations are available throughout Los Angeles County and may be available for other counties as well. This scalability is essential for increasing regional climate resiliency, allowing multiple areas to benefit from the insights and efficiencies provided by *DROPS*. As climate change continues to impact water resources, tools like *DROPS* become increasingly vital in ensuring sustainable water management across different regions.

This localized approach ensures that interventions like green streets and California Friendly® vegetation are optimally placed to maximize rainwater capture and minimize runoff, thereby addressing the region's distinct seasonal water challenges. Southern California's unique climatic and geographical characteristics make the region particularly suited for the proposed analytics tool. The area's Mediterranean climate, characterized by dry summers and wet winters, presents specific challenges in water management, especially in capturing and efficiently using rainfall. The tool's ability to analyze and interpret local weather patterns, topography, and urban infrastructure will enable the design of water management solutions that are specifically tailored to Southern California's environmental conditions.

Drought is a recurring concern in Southern California, making efficient water use and conservation strategies essential and increasingly important with climate change. The proposed tool, with its comprehensive data analysis capabilities, can play a pivotal role in drought mitigation. By prioritizing areas for stormwater capture and identifying opportunities for groundwater recharge, the tool helps in augmenting local water supplies. The use of California Friendly® vegetation, which is adapted to the region's dry conditions, further supports water conservation efforts. These strategies collectively enhance the region's resilience to drought, ensuring a more sustainable water future.

In addition to its environmental benefits, the proposed tool's focus on green streets and California Friendly® vegetation will significantly enhance the aesthetic and livability of Southern California's urban areas. Green spaces have been shown to improve air quality, reduce urban heat island effects, and provide recreational areas for communities. By strategically integrating these elements into urban planning, the tool helps create more livable, attractive, and sustainable urban environments. This not only improves the quality of life for residents but also boosts local economies.

Urban flooding and water pollution are significant challenges in Southern California's densely populated areas. The analytics tool's ability to identify critical areas for stormwater intervention plays a crucial role in mitigating these issues. By optimizing the location and design of green infrastructure, the tool helps in effectively managing stormwater runoff, reducing the risk of flooding. Additionally, these green infrastructures act as natural filters, improving the quality of water that eventually reaches rivers and oceans. This holistic approach to stormwater management underscores the tool's utility in safeguarding both public safety and environmental health in Southern California.

G. Criteria Three – Innovative Process, Approach, or Technology

Existing approaches to conducting an initial feasibility assessment of potential green infrastructure distributed stormwater capture projects are manually intensive and thus expensive. In addition, these existing approaches heavily rely on static and parameterized characteristics.

Current software planning tools used to assist siting and planning of LID projects include, but are not limited to:

- EPA's Storm Water Management Model (SWMM) is “a Windows-based desktop program. It is open-source public software and is free for use worldwide. It is used throughout the world for planning, analysis, and design related to stormwater runoff, combined and sanitary sewers, and other drainage systems” ⁶. SWMM allows for the simulation of complex storm drainage systems and can model the impact of LID solutions similar to the proposed *DROPS*. The primary drawback of SWMM is that it has a high learning curve and requires extensive initial setup and customization to be able to run simulations. In-depth modeling with SWMM may be appropriate after an initial site selection phase using *DROPS*, and feasibility of integration between *DROPS* and SWMM during a future development phase may be investigated as part of this project.
- Follow The Drop mobile app by 3RWater “helps property owners equitably gain access to green stormwater infrastructure (GSI) solutions to manage stormwater on their properties as well as supports municipalities with data collection and asset management” ⁷. Of the existing technologies, this product may be the closest to the proposed *DROPS* tool because it allows for data collection on current properties and for estimating the impact of different stormwater interventions. However, it differs from *DROPS* in several ways. First, it is a mobile application rather than a web-based application, and it is designed primarily with property owners in mind as the desired end users. Its role is less focused on large-scale evaluation and prioritization of sites, and more about inventorying a pre-selected site and estimating the benefits. Furthermore, it is a private, closed source solution.
- HydroHarvest is an open-source proof of concept tool to “calculate the volume of water that can be collected and stored from the runoff of a site in Los Angeles

⁶ <https://www.epa.gov/water-research/storm-water-management-model-swmm>

⁷ <https://www.3r-water.com/>

County”⁸. *DROPS* will build directly from this proof of concept to expand its usability and functionality.

The integration of open and public data into our proposed analytics tool represents a significant advancement in water management. Open data sources, such as geographic information system (GIS) data, satellite imagery, and environmental databases, are invaluable for understanding regional water patterns and infrastructure. By incorporating this publicly available data, the tool provides a comprehensive and multi-faceted view of the urban water landscape. This integration allows water managers to utilize a wealth of existing information, transforming it into actionable insights. The result is a more informed decision-making process, which can lead to more effective water management strategies, improved resource allocation, and enhanced ability to respond to changing environmental conditions.

The project team is also excited to explore deploying generative AI tools like Chat GPT to make the model outputs meaningful for water managers and enable interactive, chat-based exploration where feasible. This level of customization ensures that solutions are not only effective on a broad scale but also specifically tailored to local contexts, maximizing their impact and relevance.

H. Criteria Four – Work Plan / Schedule / Permitting

DROPS, as proposed, will be a data integration tool to lower the planning and coordination costs associated with siting low-impact development stormwater capture projects. To ensure that user needs remain central throughout project implementation, a human-centered approach and a Lean UX methodology will be employed to implement functionality in minimum viable increments while measuring results. In this way, hypotheses about how best to implement requirements can be quickly validated, and previously undiscovered needs can be brought to life sooner in the project lifecycle.

To enable comprehensive testing and validation, we will recruit a diverse pool of stakeholders representing a cross-section of user personas and archetypes of end users. These stakeholders will be deeply integrated into our design and development process to offer early validation of core features, contribute their subject matter expertise to test prototypes, and provide contextual feedback based on their needs and special circumstances.

⁸ <https://github.com/kcpgilbert/hydroharvest?tab=readme-ov-file>

Our process will be highly iterative and follow an agile “design-build-test” software development methodology. Milestones will be strategically planned to systematically lower the risk of ambiguity, remove obstacles, and increase the odds of *DROPS* succeeding upon public deployment. We believe that the unique combination of a human-centered approach, a lean UX methodology, and open-source development tools will enable *DROPS* to become an industry standard and viable tool for water managers.

Phase: Month:	J 24	A	S	O	N	D	J 25	F	M	A	M	J	J	A	S
Discovery & Technical Requirements															
Create Wireframes & Design Prototype															
Develop Pilot Planning Tool															
Write Final Report															

Project Phases & Segments: The project phases are described below, including the timeframe of the phase and the tasks that will be accomplished in each phase. The timeframes listed below assume a start date of July 1, 2024. Any delay in the start date of the project, for example, due to delayed availability of funds, will delay each phase by a corresponding amount of time.

Phase 1: Discovery & Technical Requirements (3 months: July – September 2024)

Phase 1 is focused on interviewing prospective users of the platform to understand their needs and workflows, along with documenting the technical requirements for integrating the various proposed data sources (parcel datasets, imagery, etc.)

Tasks:

- Individual and group interviews with relevant stakeholders such as water managers, stormwater managers, consultants, and engineers
- Document current workflows, processes, and factors that influence the siting of LID projects
- Define and validate common scenarios and use cases for *DROPS*
- Validate technical feasibility of integrating various relevant data sources

Deliverables:

- User research notes and preliminary product requirements

Phase 2: Create Wireframes and Design Prototype (3 months: October – December 2024)

Phase 2 will focus on using the learnings from phase 1 to develop a wireframe prototype of *DROPS* and then validate and iterate this design through user testing.

Tasks:

- Develop initial prototype
- Test prototype with desired end users
- Iterate on prototype based on user feedback

Deliverables:

- Testable product prototype

Phase 3: Develop Pilot Planning Tool (6 months: January – June 2025)

Phase 3 will involve the actual development of the pilot planning tool. User testing and agile iteration will continue throughout, with progressive increases in functionality developed over the course of the phase.

Tasks:

- Integrate target data sources
- Develop application backend and algorithms for locating and prioritizing LID projects
- Develop user interface
- User testing and refinement of iteratively developed planning tool

Deliverables:

- *DROPS* planning tool deployed publicly

Phase 4: Write Final Report (3 months: July – September 2025)

Phase 4 will be focused on writing up and documenting all research findings, including documentation of the tools functionality, primary use cases, as well as any remaining gaps and opportunities for future work.

Tasks:

- Document tool functionality
- Document learnings from interviews and user research
- Outline vision for future resource planning and opportunities to build on work

Deliverables:

- *DROPS* Final Report

It is possible that phases 1 and 4 could be broken out for individual funding if the desired deliverable were a research report documenting needs, opportunities, and feasibility for a stormwater planning tool. This would not accomplish the development of a pilot planning tool itself.

Potential Implementation Challenges and Solutions:

Implementing the *DROPS* tool presents several challenges and prerequisites that need to be carefully managed to ensure its success. A breakdown of these potential issues and strategies for addressing them is below.

1. Data Acquisition and Management:

- Challenge: The effectiveness of *DROPS* hinges on the quality and quantity of data it can access. Gathering comprehensive, accurate, and up-to-date data on groundwater levels, meteorological patterns, and urban infrastructure can be challenging.
- Solution: Establish partnerships with local government agencies, environmental organizations, and academic institutions to access relevant data. The CaDC has a demonstrated track record in building strong intersectoral data sharing partnerships.

2. Funding and Resource Allocation:

- Challenge: Securing adequate funding for the development, deployment, and maintenance of *DROPS* could be a significant hurdle.
- Solution: Explore a variety of funding sources (such a USBR Applied Sciences grant) to grow the tool after this initial pilot in the Verdugo and Raymond basins (FMWD / PWP / GWP service area).

3. User Acceptance and Training:

- Challenge: Resistance to change and a lack of familiarity with new technologies can hinder the adoption of *DROPS* by water managers and other stakeholders.
- Solution: Design *DROPS* with a user-friendly interface and provide comprehensive training and ongoing support to users. Engage with stakeholders early in the development process to incorporate their feedback and ensure the tool meets their needs.

4. Scalability and Flexibility:

- Challenge: The tool must be scalable to accommodate different sizes and types of water systems and flexible enough to be adapted to various geographic and climatic conditions.

- Solution: Develop *DROPS* with a modular design that allows for customization and scalability.
5. Long-term Sustainability and Support:
- Challenge: Ensuring the long-term viability and relevance of *DROPS*, including regular updates and technical support.
 - Solution: Work through the CaDC which has a proven track record of piloting, developing and scaling impactful open-source water data analytics.

By proactively addressing these challenges and prerequisites, the implementation of *DROPS* can be streamlined, ensuring it becomes a valuable tool in optimizing water resource management and planning.

Partner Roles and Expertise: The roles and expertise of each project partner are described below. Together, the proposal team brings strong experience in agile software development, advanced data analysis and integration, and infrastructure project planning.

FMWD, GWP, and PWP will serve as the lead member agencies for the project. FMWD, PWP, and GWP's role will include sponsoring the project with \$10,000 in matching funds, helping to provide overall vision for the water supply outcomes from *DROPS* usages, and supporting outreach to regional stakeholders to solicit feedback, user training, and other involvement.

Crescenta Valley Water District will serve as co-program manager. Their role will include the contribution of \$24,900 in matching funds and will include project management assistance such as contributions to defining specific water supply outcomes. CVWD will also serve as a prototypical end user of *DROPS*, providing timely feedback and testing as development proceeds through tight integration with the development team.

California Data Collaborative will serve as the primary technical implementer of the project by conducting user research with target end users to define program features, leading design of the software, and overseeing software development, hosting, and distribution. For eight years, the CaDC has brought together tech-forward water utilities to invest in the design and development of open-source data analysis software tools that inform its member agencies' operational decisions. The CaDC's commitment to open-source software design and development results in scalable and cost-effective data tools that allow member agencies to quantify the value of their water resiliency investments and develop targeted interventions to support water reliability. Powered by industry professionals and expert technologists, the CaDC sees data and technology as a tool to realize a more reliable, resilient, and sustainable future.

Permits

While there will be permits associated with building actual stormwater projects, this proposal is for research and the development of a pilot planning tool and there are no permits required for the proposal.

I. Criteria Five - Costs

Project matching funds will be provided by FMWD (\$10,000), PWP (\$10,000), GWP (\$10,000), and CVWD (\$24,900). All project tasks will be funded 50% by matching funds and 50% by MWD funds, and all project funds will go towards the CaDC who will develop the *DROPS* tool. In-kind support will be provided by CVWD and FMWD to contribute to software design, user testing, and validation.

Study Total Costs					
Cost Category	Non-Metropolitan Share (Funding Match)			Requested MWD Funding	Total
	Source	Funding Status	Amount		
Phase 1: Discovery & Technical Requirements	FMWD / PWP / GWP / CVWD	Committed	\$8,235	\$8,235	\$16,470
Phase 2: Create Wireframes and Design Prototype	FMWD / PWP / GWP / CVWD	Committed	\$10,980	\$10,980	\$21,960
Phase 3: Develop Pilot Planning Tool	FMWD / PWP / GWP / CVWD	Committed	\$30,195	\$30,195	\$60,390
Phase 4: Write Final Report	FMWD / PWP / GWP / CVWD	Committed	\$5,490	\$5,490	\$10,980
Grand Total			\$54,900	\$54,900	\$109,800

Development of *DROPS* will be guided by the principles of agile software development and project management to ensure a cost-effective effective use of resources. By adopting an iterative development process, the project ensures that each stage contributes meaningful value, allowing for a prudent allocation of budget and resources. FMWD, GWP, PWP and CVWD are all ready to proceed with matching funds. Funding amounts are within signing authorities and will be sent to the FMWD as the lead agency prior to signing the FSA Funding Program agreement.

J. Appendix A: Support Letters



**RAYMOND BASIN
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February 1, 2024

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Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 N. Alameda Street
Los Angeles, CA 90012

**RE: Letter of Support for the Foothill Municipal Water District,
Crescenta Valley Water District and California Data
Collaborative's Project Application**

Dear Mr. Jordan:

On March 26, 1984, the Court appointed the Raymond Basin Management Board as Watermaster to administer and enforce the Raymond Basin Judgment that had established water rights and the responsibility to effectively manage the quantity and quality of water in the Raymond groundwater basin (Raymond Basin).

Foothill Municipal Water District, (FMWD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) have prepared a proposal to the Metropolitan Water District for a grant to fund the development of the Open Stormwater Project in California to assist local water suppliers with integrating, visualizing, and developing first pass planning tools to prioritize low impact development stormwater capture and California friendly landscaping projects. We support this grant application and focus on improving the quality, availability, and usability of data to enhance water supply reliability over the long run, including water efficiency and drought management.

As the Watermaster, responsible for managing groundwater supplies in the Raymond Basin, we have a significant interest in supporting open planning tools that have the potential to assist in the overall management, preservation, and enhancement of groundwater supplies. Should this project be funded, we would welcome the opportunity to participate in any aspect relating to groundwater quality and supplies.

Mr. Jonathan Jordan
February 1, 2024
Page 2

In consideration of the foregoing, we would like to express our support for the FMWD, CVWD and CaDC project grant application.

If you have any questions, please contact me at (626) 815-1300, or by email at kelly@watermaster.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Gardner", with a stylized flourish at the end.

Kelly L. Gardner
Executive Officer
Raymond Basin Management Board



P.O. BOX 1
PASADENA, CALIFORNIA 91102
WWW.ARROYOSFOOTHILLS.ORG
626.796.0782

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Barbara Goto
Director of Operations

Tim Martinez
*Land & Program
Administrator*

Auxenia Grace Privett-

Jonathan Jordan

Metropolitan Water District of Southern California

FSAfundingprogram@mwdh2o.com

February 5, 2024

I write on behalf of Arroyos Foothills Conservancy and the Friends of the Rosemont Preserve in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California native landscaping projects.

We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and ground water recharge.

As a local environmental organization, we have a strong interest in supporting stormwater capture projects that function to replenish groundwater depleted by development. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential areas for habitat restoration and distributed stormwater capture projects provides a valuable service to the water community. We understand this fund could make funds available for a planned project we have at our Rosemont Preserve property which would help CVWD quantify water sequestration benefits.

In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform as it relates to potential ecological benefits.
- Testing the analytics tool and providing feedback to ensure it works in the Rosemont Preserve.
- Collaboratively engaging on implementing solutions to capture stormwater to facilitate percolation into the soil and promote groundwater recharge at the Rosemont Preserve.

We are encouraged by the idea of local water districts having the capacity to pursue and evaluate opportunities elsewhere with the help of this evaluation tool.

Sincerely,

John Howell

Chief Executive Officer

(626) 796-0782



**WATER AND
POWER**

February 2, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944

I write on behalf of Burbank Water and Power in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Open Stormwater project in California to assist local water suppliers with integrating, visualizing and developing first pass planning tool to prioritize low impact development stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a municipal agency, we have a strong interest in supporting open planning tools to support green infrastructure for stormwater capture and water quality improvements. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets distributed stormwater capture projects provides an invaluable service to the water community.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,

Richard Wilson, P.E.

A handwritten signature in black ink, appearing to read "Richard Wilson".

Assistant General Manager - Water
Burbank Water and Power
164 West Magnolia Blvd.
Burbank, CA 91502



Western Municipal Water District
14205 Meridian Parkway,
Riverside, CA 92518
District Business | 951.571.7100
Customer Service | 951.571.7104

Craig D. Miller
General Manager

Mike Gardner
Division 1

Gracie Torres
Division 2

Brenda Dennstedt
Division 3

Laura Roughton
Division 4

Fauzia Rizvi
Division 5

January 29, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944

FUTURE SUPPLY ACTIONS FUNDING PROGRAM – LETTER OF SUPPORT

Dear Mr. Jordan:

I write on behalf of Western Municipal Water District in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a Southern California water supplier, my agency has a strong interest in supporting open planning tools to support stormwater capture. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets and distributed stormwater capture projects provides a valuable service to the water community. In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform.
- Allowing the data that we already share with the CaDC to be used to inform the software architecture, and possibly sharing additional data on a case-by-case basis.
- Testing the analytics tool and providing feedback to ensure that it meets our needs.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,



Craig D. Miller
General Manager



January 30, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
FSAfundingprogram@mw dh2o.com

I write on behalf of Moulton Niguel Water District in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a Southern California water supplier, my agency has a strong interest in supporting open planning tools to support stormwater capture. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets and distributed stormwater capture projects provides a valuable service to the water community. In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform.
- Allowing the data that we already share with the CaDC to be used to inform the software architecture, and possibly sharing additional data on a case-by-case basis.
- Testing the analytics tool and providing feedback to ensure that it meets our needs.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,



Johnathan Cruz
Director of Financial Planning & Innovation
Moulton Niguel Water District
26161 Gordon Road, Laguna Hills, CA

Appendix 1 -- Illustrative alpha prototype

Below is a preliminary research project that provides some of the functionality envisioned in DROPs. This example examines the stormwater capture potential at CVWD's Eagle Canyon reservoir by the Rosemont Preserve. The code for this [pre-alpha tool](#) can be accessed at this [link](#). The tool ingests high resolution satellite imagery (60cm) to determine impervious areas, OpenStreetMaps building footprints, rainfall depth provided by the city of LA and climate projection information in order to provide an automated approach to estimate runoff potential both under present and future climate conditions.

Entire site

Select the slope of your site:

Gently Sloping

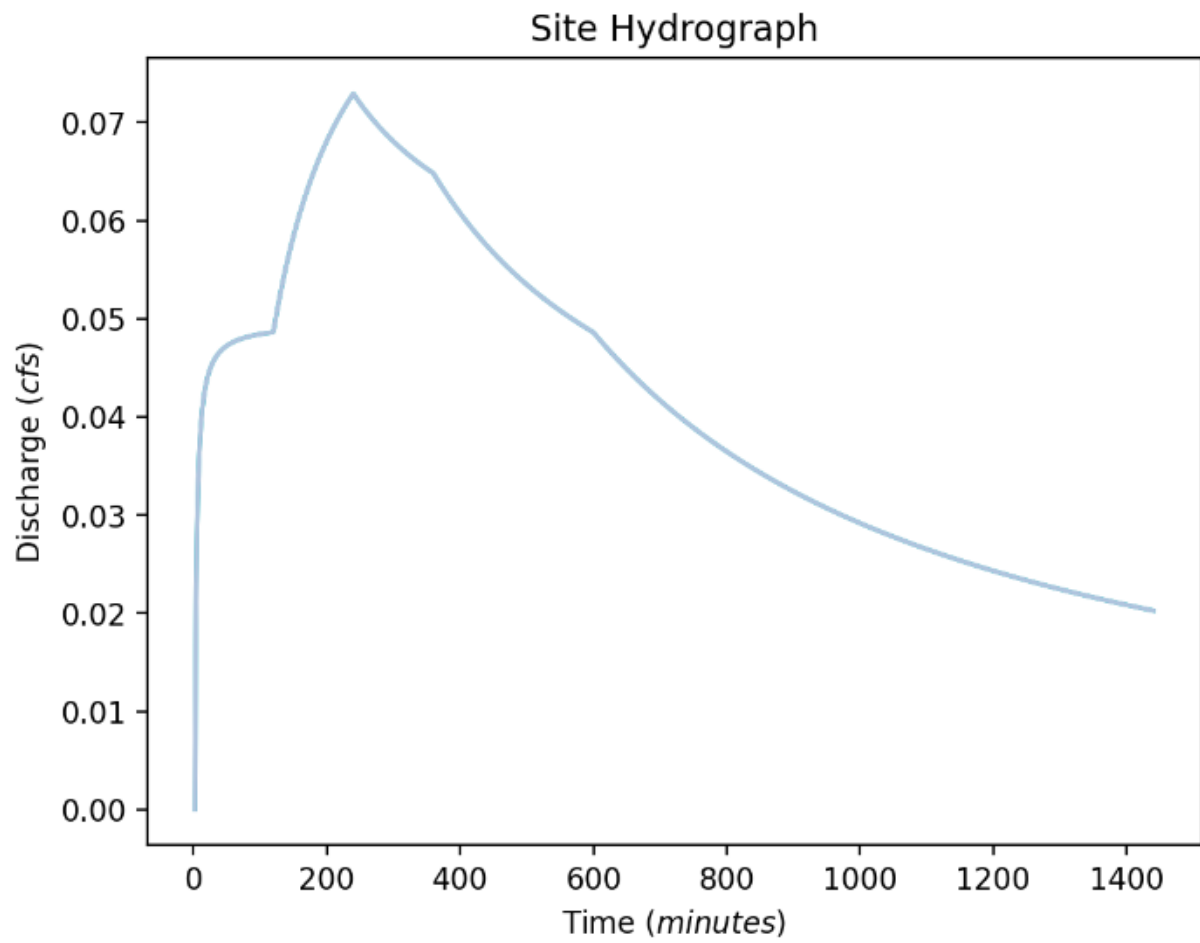
Draw your polygon on the map below:

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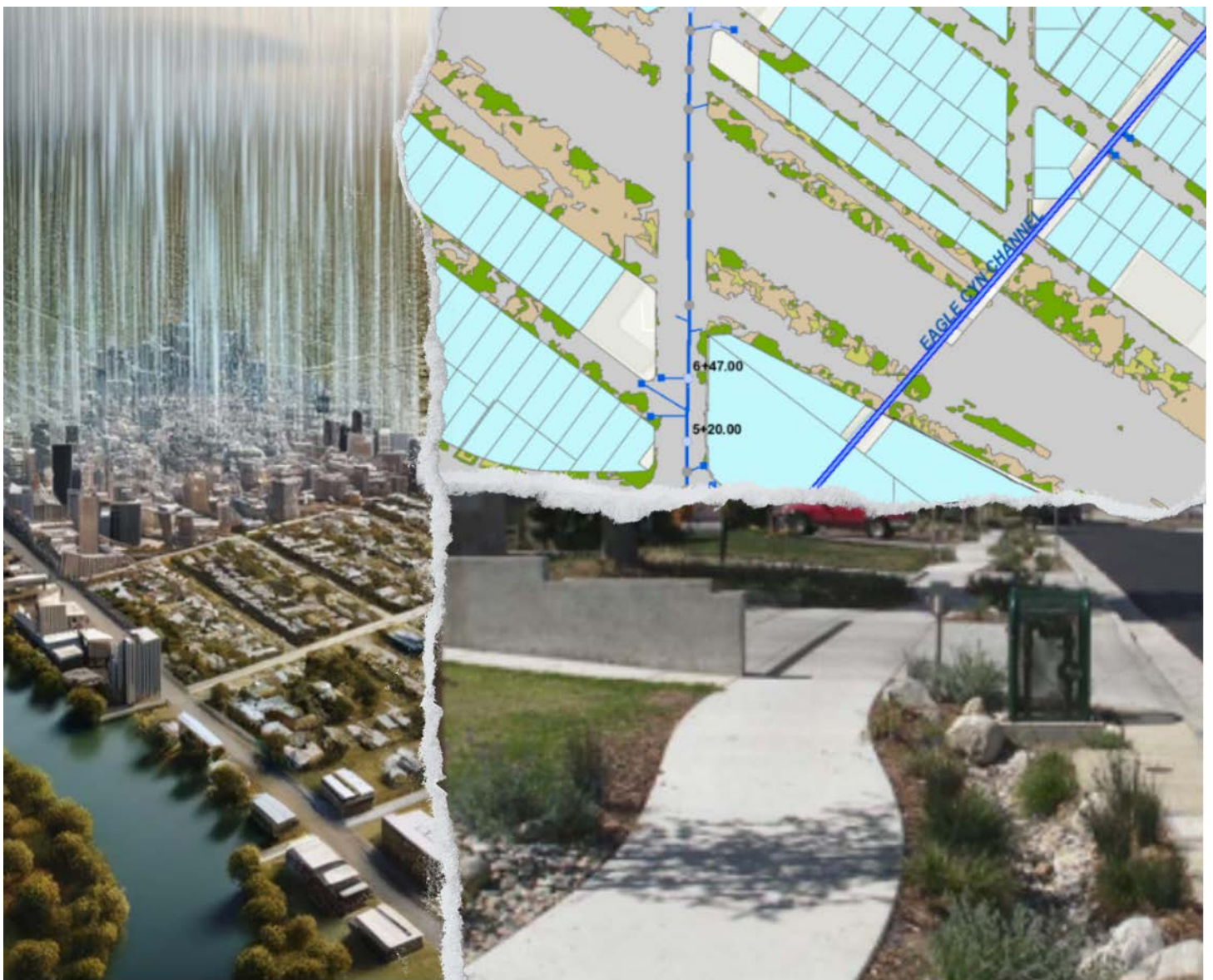


Data-Driven Resource Optimization and Planning System (*DROPS*)



A Proposal to the Metropolitan Water District
of Southern California
Future Supply Actions Funding Program

February 5, 2024



A. Executive Summary Letter

“If you take care of your drops, the gallons take care of themselves.”

Dear Mr. Warren Teitz and Selection Panel Members:

We are writing to submit our proposal for a tool designed to rapidly and materially shift the trajectory of water management strategies in the Verdugo and Raymond Groundwater Basins. As water managers in regular conversation with our peers across Southern California, we are particularly excited about the relative ease with which the benefits of our efforts in this project can be shared with Metropolitan’s other member agencies and throughout the rest of California.

We know that water management is a holistic endeavor with multiple approaches, including stormwater management and groundwater recharge. There is increasingly more related funding and wide margins for growth in these areas due to persisting barriers such as the need for feasibility studies that are prohibitive in terms of time and financial cost for retail agencies.

Data-Driven Resource Optimization and Planning System (“*DROPS*”) is a pioneering tool that integrates advanced data analytics with artificial intelligence to enhance water management capabilities. Specifically, *DROPS* achieves previously unattained levels of accuracy in terms of identifying impervious areas by triangulating aerial imagery, topographical data, remote-sensing data, and environmental databases and supplementing those datasets with analysis and insights from AI integration.

As mentioned above, most retail agencies are hard pressed for the staff or budget resources to see a larger-scale stormwater capture or groundwater recharge project from concept to implementation. As an open, collaborative analytics tool, *DROPS* represents an accessible and low-cost planning resource to identify potential sites for green infrastructure that can be designed and completed faster, while other, longer-term efforts are pursued and implemented in parallel. So often, however, innovative tools and information such as *DROPS* are not effectively channeled through established channels to make sure the information is shared and effectively and easily used by others such as our sub-agencies.

Our proposition is to demonstrate the power of *DROPS* with projects benefiting the Verdugo and Raymond basins while scaling and customizing the tool through an established and trusted industry association – the California Data Collaborative – to ensure that other retail agencies can enjoy the same benefits from decision-making and

improved water resource planning to measuring program performance and complying with State regulations.

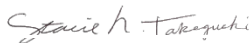
We believe that developing *DROPS* and scaling its benefits will play a pivotal role in enhancing the region's ability to adapt to climate change and ensure a secure water future. We appreciate the opportunity to present this proposal and look forward to the possibility of collaborating with the Committee to bring this vision to fruition.

"[We are] informed and believe that the information contained in this proposal is true and that the supporting data is accurate and complete."

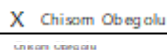
Sincerely,



Nina Jazmadarian
General Manager –
Foothill Municipal Water
Agency



Stacie Takeguchi
Assistant General
Manager – Water,
Pasadena Water and
Power



Chisom Obegolu
Assistant General
Manager – Water
Glendale Water and
Power



James Lee
General Manager –
Crescenta Valley Water
District

Name of Proposal Water Resource Category	Stormwater
Member Agency Name (As it appears on W-9 Tax form)	Foothill Municipal Water District
Federal ID	95-6005024
Address (City, State and Zip)	4536 Hampton Road La Cañada Flintridge, CA 91011
Main Telephone	818.790.4036 X 102
Contact Name	Nina Jazmadarian
Contact Telephone	818.790.4036 X 102
Contact Email	nina.jaz@fmwd.com
Website Address	https://www.fmwd.com/home

B. Entities Participating in Proposal

Member Agencies



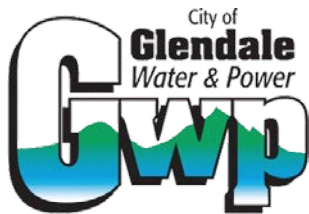
Foothill Municipal Water District

Foothill Municipal Water District (FMWD) was incorporated on January 7, 1952 to help meet the increased water needs of the rapidly growing foothill communities following the end of World War II. Water leaders, and ultimately voters, saw the need to supplement local groundwater with water imported by the Metropolitan Water District of Southern California (MWD). Foothill officially joined MWD in 1953 and operates as one of its 26 member agencies.



Pasadena Water and Power

Pasadena Water and Power is a community enterprise that has always been essential to the health, economy and quality of life in our city. Today, PWP provides electricity to more than 65,000 customers within Pasadena. We also deliver water to almost 38,000 households and businesses in Pasadena and adjacent communities in the San Gabriel Valley.



Glendale Water and Power

With a heritage that spans a century, Glendale Water & Power is a municipal utility that serves the citizens and community of Glendale, California including over 34,000 water and 89,000 electric customers. Glendale Water & Power's vision is to provide our customers with reliable and sustainable water and power services that are cost effective and innovative.

Partnering Agencies and Entities



Crescenta Valley Water District

Crescenta Valley Water District (CVWD) is located in the Crescenta Valley area of Los Angeles County in the foothills of the San Gabriel Mountains, between the San Fernando and San Gabriel valleys. The District provides water distribution and sewage collection within its boundaries to the unincorporated communities of La Crescenta, Montrose, and Verdugo City as well as a small portion of the City of La Canada-Flintridge. The District serves an area of approximately 4 square miles in relatively steep terrain ranging from 1,200 feet to almost 3,000 feet above sea level. The District currently provides water to over 8,000 accounts representing a population of approximately 32,000.



California Data Collaborative

California Data Collaborative (CaDC) is a nonprofit coalition of water supply agencies in California, counting Metropolitan and twelve of its Member Agencies and retailers as members. For eight years, the CaDC has brought together tech-forward water utilities to invest in the design and development of open-source data analysis software tools that inform its member agencies' operational decisions.

C. Key Individuals

Name / Title / Agency / Contact Information	Relevant Experience
ROLE: PARTICIPATING AGENCY LEADS	
Nina Jazmadarian General Manager <i>Foothill Municipal Water District</i> 4536 Hampton Road La Cañada Flintridge, CA 91011 818.790.4036 x102 Nina.jaz@fmwd.com	Nina Jazmadarian is General Manager at Foothill Municipal Water District. Nina oversees the operations and maintenance activities of the District to ensure that good quality water is reliably delivered to customers. This oversight includes the administrative, planning, engineering and financial aspects of the District. Nina also oversees outreach to the public including communications for water conservation. Nina has over 30 years of experience in the water industry involving water resources management, rates structures, conjunctive use and drought management plans among other subject matters in the field of water. Nina began her career at the Metropolitan Water District of Southern California where she managed various storage agreements and the various water programs that Metropolitan had. She assisted in the development of the 1994 rate structure and administered the 1991 MWD allocation plan. She also successfully negotiated several complex water storage agreements and wheeling agreements. Prior to becoming General Manager for Foothill, Nina worked as a consultant where she supported a number of Southern California water agencies in the development of rate structures, water storage programs and the feasibility of developing alternate water supplies. She also developed a water resources master plan for one of the larger water agencies in Southern California.
Stacie Takeguchi Assistant General Manager - Water <i>Pasadena Water and Power</i> 613 E. Broadway, Glendale, CA 91206 stakeguchi@cityofpasadena.net 626.744.4005	Stacie Takeguchi comes to Pasadena Water and Power with more than 20 years of experience in the water industry. Prior to joining PWP, she worked for The Metropolitan Water District of Southern California for 15 years, serving in various capacities including leading regional drought action planning efforts. Additionally, she has experience in managing innovative stormwater multi-use projects at the County of Los Angeles Department of Public Works. Ms. Takeguchi has a bachelor's degree from Tulane University and is a licensed engineer in the State of California.
Chisom Obegolu Assistant General Manager - Water <i>Glendale Water and Power</i> 613 E. Broadway, Glendale, CA 91206	Chisom Obegolu is the Chief Assistant General Manager of Water Services at Glendale Water and Power. He is responsible for managing the water operational and business functions, which includes system operations, planning and water resources management. He oversees Water Engineering, Water Operation, Water Distribution, and Water Quality. Among his primary duties is to implement the water strategic plan and initiatives.

818-550-4400 cobegolu@glendaleca.gov	
James Lee General Manager <i>Crescenta Valley Water District</i> 2700 Foothill Blvd., La Crescenta CA 91214 818.236.3925 jlee@cvwd.com	James Lee pursues creative ways to ensure safe and reliable water for California, including for Crescenta Valley Water District where he serves as General Manager. He is responsible for developing and implementing the District's short and long-term strategic plan goals that serve the community and region. Prior to joining the District, he served water and wastewater agencies through public finance on both the financial advisory and investment banking sides. He also served agencies with utility rate studies, budget modeling, and organizational development. He serves in leadership for the Public Water Agencies Group and the California Data Collaborative. He holds a Bachelor of Arts in Economics-Accounting from Claremont McKenna College and a Master of Public Policy from University of Southern California's Price School of Public Policy.
ROLE: CO-PROGRAM MANAGERS	
Michael Le Water Program Technician <i>Foothill Municipal Water District</i> 4536 Hampton Road La Cañada Flintridge, CA 91011 818.790.4036 mle@fmwd.com	Michael Le is the Water Program Technician at FMWD. Michael has more than 7 years of experience working in the public water sector. Michael graduated with a Bachelor's Degree in Accounting from Cal State Long Beach. In Michael's free time - he enjoys traveling, the great outdoors and motorsports.
Patrick Atwater Regulatory and Public Affairs Manager <i>Crescenta Valley Water District</i> 2700 Foothill Blvd., La Crescenta CA 91214 (818)248-3925 patwater@cvwd.com	Patrick Atwater has a decade and a half of experience managing data analytics projects in water resources, public finance, climate adaptation, and other civic challenges. He serves as the Regulatory and Public Affairs Manager for Crescenta Valley Water District, the hometown where he grew up. He is the author of the books A New California Dream, California Revolution, and The Big Drought. His data work has been featured in the Annals of Applied Statistics as well as numerous industry outlets including Harpers magazine and KNX news radio. He holds a Bachelor's Degree in Mathematics and Philosophy, Politics and Economics from Claremont Mckenna College and a Master's Degree focused on data science for cities from NYU.
ROLE: TECHNICAL LEADS	
Christopher Tull Chief Data Officer <i>California Data Collaborative</i>	Christopher Tull is a public technologist, nonprofit leader, and data scientist specializing in using data to improve operations, program effectiveness, and efficiency within water agencies. He worked in several roles over the years with the California Data Collaborative, most recently as Chief Data Officer where he leads the organization, and before that as lead data scientist where he designed and built data infrastructure to process, store, and analyze metered water use data from water utilities

23564 Calabasas Road Suite 201, Calabasas, CA 91302 Phone: (805) 330-1196 chris@thecadc.org	across California, including hourly AMI data. He has an M.S. in Urban Informatics from New York University and a B.S. in Computer Science and Mathematics from CSU Channel Islands.
Dr. Brianna R. Pagán Deputy Manager <i>NASA Goddard Earth Sciences Center Data and Information Services Center</i> Adjunct Professor <i>Loyola Marymount University</i> Phone: (805) 280-3778 briannapagan@gmail.com	Dr. Brianna Pagán has over 10 years experience working on local and international environmental issues. Her research and expertise is in remote sensing, eco-hydrology and climate, also receiving the prestigious American Geophysical Union Horton Hydrology Grant in 2018 for her doctoral research on estimating plant transpiration from satellites. Dr. Pagán is currently a Deputy Manager at NASA Goddard Earth Sciences Center Data and Information Services Center and Adjunct Professor at Loyola Marymount University's College of Science and Engineering. At NASA, she leads a team of 70+ software engineers and domain experts, orchestrating the transition to cloud-based infrastructure for distributing satellite and model data to the public. Previously as the Director of Remote Sensing at SpaceSense.ai, she led the research and development for new agri-tech products managing a team of geospatial scientists, machine learning experts and software developers. Dr. Pagán has also worked at the Flemish Institute for Technological Research as a hydroinformatics researcher and the Long Beach Water Department in California as a water conservation specialist. She continues to provide remote sensing consulting services to water agencies.

D. Proposal Description

Overview of the Problem

Climate change projections^{1 2} for California indicate increasingly variable weather swings in a state that already faces the highest precipitation variability in the nation³. This “climate whiplash” often leaves communities prone to flooding and poor water quality during wet years while struggling with water availability and groundwater overdraft during dry years. The ability to effectively manage and capture stormwater when it does arrive so that it can be stored and used when needed is therefore increasingly important for the entire state, with California’s August 2022 Water Supply Strategy calling for an additional 250,000 acre-feet of stormwater capture in cities and towns by 2030⁴. This need is

¹ <https://energyinnovation.org/2023/03/29/atmospheric-river/>

² Swain, D. L., Langenbrunner, B., Neelin, J. D., & Hall, A. (2018). Increasing precipitation volatility in twenty-first-century California. *Nature Climate Change*, 8(5), 427-433.

³ [https://cwc.ca.gov/-/media/CWC-](https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf)

[Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf](https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2019/08_August/Dettinger_CA_Precipitation.pdf)

⁴ <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf>

especially great in Southern California where the increased stress on imported water supplies from Northern California and the Colorado River have highlighted the need for local and regional solutions to increasing water supplies. In addition, municipal separate storm sewer permit (MS4) requirements come with high costs.

Despite the importance of implementing multi-benefit stormwater capture projects that contribute to aquifer recharge and support local supply production, water agencies may not realize the full potential of distributed stormwater projects throughout their service area. This is often due to a lack of understanding and visibility into the benefits and possible locations of projects and may lead water managers to focus their attention on a few large water supply projects instead of allocating resources towards a larger number of smaller distributed projects.

In order to increase awareness of and visibility into the many benefits of distributed, low impact development (LID) projects, this proposal outlines the implementation of the Data-Driven Resource Optimization and Planning System (*DROPS*), a low-cost planning tool, designed to efficiently site and estimate the benefits of distributed stormwater capture and filtration projects, including the implementation of green streets and California Friendly® vegetation. In addition to supporting the siting of projects, the tool will also estimate multiple benefits such as groundwater recharge for local supply, runoff reduction for flood control, and water saved in situations where the project is sited to replace irrigated (often non-functional) turfgrass. This innovative approach will enable cost-effective resource planning and support the potential development of stormwater projects in a way that can supplement or replace traditional, expensive feasibility studies.

Need in the Foothill Region

The Verdugo and Raymond groundwater basins provide water resources for Foothill Municipal Water District's member agencies, including Crescenta Valley Water District, along with Glendale Water and Power and Pasadena Water and Power. The Verdugo Basin has declined over the past decades since CVWD built sewer systems, lowering the water recharge from septic systems. In addition, the District has further developed and increased the amount of impervious surface. As a result, groundwater production today is approximately two thirds of its typical yield a decade ago.

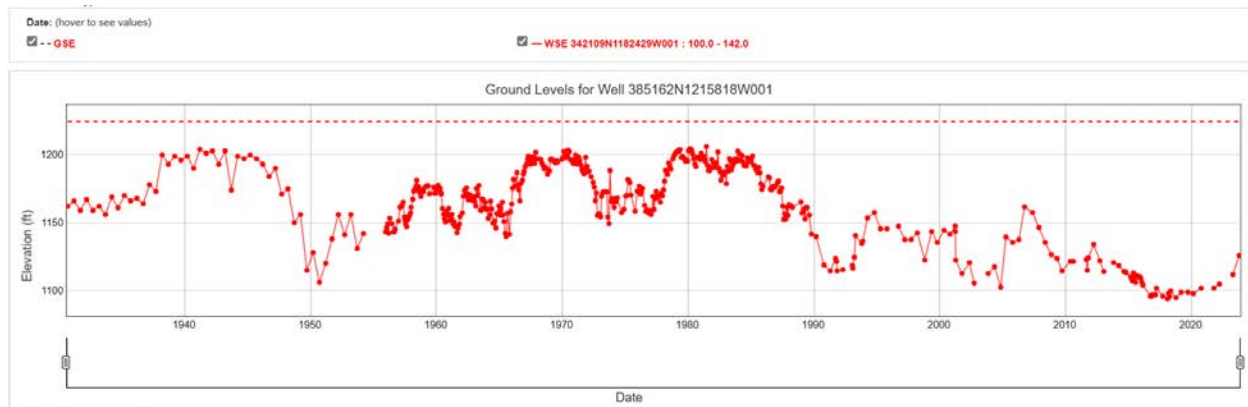


Figure 1. Historical groundwater elevations at a well in the Verdugo Basin from 1930 to present. Structural declines in water levels are visible in the late 1980s and again starting in 2014, with a slight rebound visible in October 2023 thanks to dramatic levels of precipitation that year. Source: https://cww.water.ca.gov/map/waterlevel_detailed?siteCode=342109N1182429W001

The *DROPS* pilot in the Verdugo and Raymond basins will test the hypothesis that an open, public facing data analytics tool can enable increased collaboration and coordination. This transparency is pivotal in building trust and fostering partnerships across different sectors, including government agencies, environmental groups, community organizations, and private entities. By providing access to a shared pool of data, *DROPS* enables these stakeholders to collectively analyze, understand, and respond to water management challenges with a unified approach. The tool's comprehensive data encompasses various aspects of water resources, climate patterns, and urban infrastructure, allowing for a holistic view of the water management landscape.

Overview of the Tool

The CaDC has had proven success developing and deploying software planning tools to support water management decisions, including software tools for evaluating the savings of turf replacement projects, targeting outreach for efficiency programs, and integrating sensor data for watershed management. Uniquely, the CaDC operates as a co-op run by and for the benefit of water managers, making it well-positioned to develop a regional planning tool that benefits many stakeholders.

This project proposes to develop a simple, user-friendly web-based planning tool to aid siting of distributed stormwater capture projects. The planning tool will calculate metrics to prioritize potential sites by compiling the necessary geospatial data at scale to more efficiently implement the Rational Method - a popular method for engineers to calculate peak runoff. Traditionally, engineers spend either a great deal of time compiling the necessary information to do these calculations or they rely on closed source software

(e.g. the HydroCalc Calculator⁵) that uses primarily static data inputs, neglecting the ever-increasing availability of high resolution and dynamic geospatial information.

There are many data sets that are either publicly available or that may be derived from public data which are relevant for siting LID projects and which can be incorporated into *DROPS*. The exact combination of datasets and how they will interact to aid project prioritization will be determined through early user interviews and feedback as part of our agile software development methodology (described in Section H). Datasets built into the tool may include:

- **Remote sensing:** classifications of aerial and satellite imagery to identify impervious areas, as well as irrigated turf that may be nonfunctional;
- **Slope angle:** topographic data provides context for calculating runoff and stormwater capture potential;
- **Historical Rainfall Depth:** precipitation data provides context for calculating runoff and stormwater capture potential;
- **Parcel land use:** shows whether the parcel is residential, a school, commercial, a publicly owned median etc. and provides context on stormwater capture potential;
- **Urban Planning and Zoning Records:** Municipal records of urban planning, construction, and zoning can provide historical and current data on the extent of impermeable surfaces, and identify commercial areas subject to nonfunctional turf bans;
- **Stormwater Infrastructure:** overlaying the location of current stormwater infrastructure can help prioritize projects in areas that may be underserved by drains, or which are well placed to divert, slow, or capture water before it enters the storm sewer system;
- **Neighborhood Income and Disadvantaged Communities (DAC):** siting projects in DACs can help both to alleviate potential inequalities in access to municipal services as well as allow projects to tap into sources of state and federal funding that might not otherwise be accessible; and
- **Other data sources:** such as groundwater and hydrologic models from agencies participating in the study will be included where possible to help quantify groundwater yield based on enhanced stormwater capture.

Alongside the siting of projects with a primary benefit of slowing, capturing, and treating stormwater, one unique value proposition of *DROPS* is the potential to align the creation of distributed LID projects with the removal of nonfunctional turf grass irrigated by potable water. Per AB1572, signed into law by Governor Newsom on October 13, 2023, the “use of potable water for the irrigation of nonfunctional turf located on commercial, industrial,

⁵ https://pw.lacounty.gov/wmd/dsp_LowImpactDevelopment.cfm

and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited" The implementation deadlines for the law phase in as of January 2027 for state and local government properties, January 2028 for all other institutional properties and all commercial and industrial properties, January 2029 for HOAs, and January 2031 (or later, depending on availability of funding) for publicly owned properties in a DAC.

This multibenefit alignment means that *DROPS* can build upon prior work by both MWD and the CaDC. MWD recently developed a turf dashboard which was provided to member agencies to aid in the identification of nonfunctional turf. *DROPS* could build on the data underlying this dashboard to find intersections between nonfunctional areas that will need replacing and opportunities for LID projects. Furthermore, CaDC, with funding from an Innovative Conservation Program (ICP) grant, developed in 2018 a tool called Flip My Lawn which estimated the water savings, carbon sequestration, and biodiversity benefits of converting from turf grass to California Native landscaping. These same calculations could be built into *DROPS* to further quantify the co-benefits of replacing turf grass with landscaping that incorporates both native plants and LID design elements.

As part of the testing of the tool, these planning measurements will be validated with field surveys and visits to potential sites. The tool will be developed iteratively in coordination with water management professionals across the CaDC's membership to calibrate and provide quality assurance of the model outputs.

E. Criteria One – Reduces Barriers to Future Production

Many small agencies lack the awareness and capacity to plan for green infrastructure projects. *DROPS*'s data analytics and predictive modeling capabilities lower the cost to plan and thus develop distributed stormwater capture projects, helping to enable optimal management of the basin's resources, ensuring a steady and sustainable local water supply.

The *DROPS* tool significantly contributes to increasing future local supply potential in the Verdugo, Raymond and other groundwater basins. By supporting stormwater capture projects that increase groundwater recharge and raise water levels in the basin, *DROPS* facilitates greater reliance on local water supplies. Greater levels of recharge have the ability to increase the sustainable yield of groundwater basins.

This is crucial for regions like Southern California given aforementioned climate realities, and *DROPS* will support resource resiliency and planning for climate change-driven uncertainty in many ways. The ability to site projects where they could most effectively

slow and capture storm flows during intense precipitation events has the potential to reduce and prevent flooding, which is a major climate risk that is projected to increase as the planet warms. Furthermore, the ability to store greater volumes of water locally during wet years so that it may be withdrawn during dry years will increase resilience to sustained periods of drought and the ongoing aridification of the Colorado River Basin which are both projected to increase in severity due to climate change. The ability to increase local storage also aligns with MWD's 2020 IRP Needs Assessment which highlighted that "... storage capacity, put/take capabilities, and accessibility are critical considerations in maintaining reliability under the region's current and future conditions...".

DROPS aligns with existing and planned conservation investments to lower the demand on potable water supplies. By integrating data and insights from conservation efforts, *DROPS* optimizes water use and supports lowering water demand through CA friendly landscaping as part of multi-benefit green infrastructure projects that also capture stormwater. This alignment helps to turn the same thirsty landscapes that are often the target of turf removal projects into opportunities for increasing local supplies - a crucial step for sustainable water management.

A significant advantage of *DROPS* is its ability to lower the costs associated with feasibility studies for future water projects. By integrating relevant data, making it easily accessible, and then supporting comprehensive data analysis and predictive insights, *DROPS* reduces the 'soft costs' often associated with these studies. The open-source nature of the tool supports sharing water management insights and lessons learned, further reducing the financial burden on communities and organizations looking to develop new water supplies.

F. Criteria Two – Regional Benefit / Applicability

The foothill region includes a diverse array of communities. While the Verdugo and Raymond Basins serve as pilots for the implementation of *DROPS*, the tool's data sets and methodologies are scalable to neighboring communities and other parts of the Metropolitan Water District (MWD). For example, aerial imagery classifications, digital elevation data, parcel data, and demographic data, are available throughout MWD's service area. Others, such as stormwater infrastructure locations are available throughout Los Angeles County and may be available for other counties as well. This scalability is essential for increasing regional climate resiliency, allowing multiple areas to benefit from the insights and efficiencies provided by *DROPS*. As climate change continues to impact water resources, tools like *DROPS* become increasingly vital in ensuring sustainable water management across different regions.

This localized approach ensures that interventions like green streets and California Friendly® vegetation are optimally placed to maximize rainwater capture and minimize runoff, thereby addressing the region's distinct seasonal water challenges. Southern California's unique climatic and geographical characteristics make the region particularly suited for the proposed analytics tool. The area's Mediterranean climate, characterized by dry summers and wet winters, presents specific challenges in water management, especially in capturing and efficiently using rainfall. The tool's ability to analyze and interpret local weather patterns, topography, and urban infrastructure will enable the design of water management solutions that are specifically tailored to Southern California's environmental conditions.

Drought is a recurring concern in Southern California, making efficient water use and conservation strategies essential and increasingly important with climate change. The proposed tool, with its comprehensive data analysis capabilities, can play a pivotal role in drought mitigation. By prioritizing areas for stormwater capture and identifying opportunities for groundwater recharge, the tool helps in augmenting local water supplies. The use of California Friendly® vegetation, which is adapted to the region's dry conditions, further supports water conservation efforts. These strategies collectively enhance the region's resilience to drought, ensuring a more sustainable water future.

In addition to its environmental benefits, the proposed tool's focus on green streets and California Friendly® vegetation will significantly enhance the aesthetic and livability of Southern California's urban areas. Green spaces have been shown to improve air quality, reduce urban heat island effects, and provide recreational areas for communities. By strategically integrating these elements into urban planning, the tool helps create more livable, attractive, and sustainable urban environments. This not only improves the quality of life for residents but also boosts local economies.

Urban flooding and water pollution are significant challenges in Southern California's densely populated areas. The analytics tool's ability to identify critical areas for stormwater intervention plays a crucial role in mitigating these issues. By optimizing the location and design of green infrastructure, the tool helps in effectively managing stormwater runoff, reducing the risk of flooding. Additionally, these green infrastructures act as natural filters, improving the quality of water that eventually reaches rivers and oceans. This holistic approach to stormwater management underscores the tool's utility in safeguarding both public safety and environmental health in Southern California.

G. Criteria Three – Innovative Process, Approach, or Technology

Existing approaches to conducting an initial feasibility assessment of potential green infrastructure distributed stormwater capture projects are manually intensive and thus expensive. In addition, these existing approaches heavily rely on static and parameterized characteristics.

Current software planning tools used to assist siting and planning of LID projects include, but are not limited to:

- EPA's Storm Water Management Model (SWMM) is “a Windows-based desktop program. It is open-source public software and is free for use worldwide. It is used throughout the world for planning, analysis, and design related to stormwater runoff, combined and sanitary sewers, and other drainage systems” ⁶. SWMM allows for the simulation of complex storm drainage systems and can model the impact of LID solutions similar to the proposed *DROPS*. The primary drawback of SWMM is that it has a high learning curve and requires extensive initial setup and customization to be able to run simulations. In-depth modeling with SWMM may be appropriate after an initial site selection phase using *DROPS*, and feasibility of integration between *DROPS* and SWMM during a future development phase may be investigated as part of this project.
- Follow The Drop mobile app by 3RWater “helps property owners equitably gain access to green stormwater infrastructure (GSI) solutions to manage stormwater on their properties as well as supports municipalities with data collection and asset management” ⁷. Of the existing technologies, this product may be the closest to the proposed *DROPS* tool because it allows for data collection on current properties and for estimating the impact of different stormwater interventions. However, it differs from *DROPS* in several ways. First, it is a mobile application rather than a web-based application, and it is designed primarily with property owners in mind as the desired end users. Its role is less focused on large-scale evaluation and prioritization of sites, and more about inventorying a pre-selected site and estimating the benefits. Furthermore, it is a private, closed source solution.
- HydroHarvest is an open-source proof of concept tool to “calculate the volume of water that can be collected and stored from the runoff of a site in Los Angeles

⁶ <https://www.epa.gov/water-research/storm-water-management-model-swmm>

⁷ <https://www.3r-water.com/>

County”⁸. *DROPS* will build directly from this proof of concept to expand its usability and functionality.

The integration of open and public data into our proposed analytics tool represents a significant advancement in water management. Open data sources, such as geographic information system (GIS) data, satellite imagery, and environmental databases, are invaluable for understanding regional water patterns and infrastructure. By incorporating this publicly available data, the tool provides a comprehensive and multi-faceted view of the urban water landscape. This integration allows water managers to utilize a wealth of existing information, transforming it into actionable insights. The result is a more informed decision-making process, which can lead to more effective water management strategies, improved resource allocation, and enhanced ability to respond to changing environmental conditions.

The project team is also excited to explore deploying generative AI tools like Chat GPT to make the model outputs meaningful for water managers and enable interactive, chat-based exploration where feasible. This level of customization ensures that solutions are not only effective on a broad scale but also specifically tailored to local contexts, maximizing their impact and relevance.

H. Criteria Four – Work Plan / Schedule / Permitting

DROPS, as proposed, will be a data integration tool to lower the planning and coordination costs associated with siting low-impact development stormwater capture projects. To ensure that user needs remain central throughout project implementation, a human-centered approach and a Lean UX methodology will be employed to implement functionality in minimum viable increments while measuring results. In this way, hypotheses about how best to implement requirements can be quickly validated, and previously undiscovered needs can be brought to life sooner in the project lifecycle.

To enable comprehensive testing and validation, we will recruit a diverse pool of stakeholders representing a cross-section of user personas and archetypes of end users. These stakeholders will be deeply integrated into our design and development process to offer early validation of core features, contribute their subject matter expertise to test prototypes, and provide contextual feedback based on their needs and special circumstances.

⁸ <https://github.com/kcpgilbert/hydroharvest?tab=readme-ov-file>

Our process will be highly iterative and follow an agile “design-build-test” software development methodology. Milestones will be strategically planned to systematically lower the risk of ambiguity, remove obstacles, and increase the odds of *DROPS* succeeding upon public deployment. We believe that the unique combination of a human-centered approach, a lean UX methodology, and open-source development tools will enable *DROPS* to become an industry standard and viable tool for water managers.

Phase: Month:	J 24	A	S	O	N	D	J 25	F	M	A	M	J	J	A	S
Discovery & Technical Requirements															
Create Wireframes & Design Prototype															
Develop Pilot Planning Tool															
Write Final Report															

Project Phases & Segments: The project phases are described below, including the timeframe of the phase and the tasks that will be accomplished in each phase. The timeframes listed below assume a start date of July 1, 2024. Any delay in the start date of the project, for example, due to delayed availability of funds, will delay each phase by a corresponding amount of time.

Phase 1: Discovery & Technical Requirements (3 months: July – September 2024)

Phase 1 is focused on interviewing prospective users of the platform to understand their needs and workflows, along with documenting the technical requirements for integrating the various proposed data sources (parcel datasets, imagery, etc.)

Tasks:

- Individual and group interviews with relevant stakeholders such as water managers, stormwater managers, consultants, and engineers
- Document current workflows, processes, and factors that influence the siting of LID projects
- Define and validate common scenarios and use cases for *DROPS*
- Validate technical feasibility of integrating various relevant data sources

Deliverables:

- User research notes and preliminary product requirements

Phase 2: Create Wireframes and Design Prototype (3 months: October – December 2024)

Phase 2 will focus on using the learnings from phase 1 to develop a wireframe prototype of *DROPS* and then validate and iterate this design through user testing.

Tasks:

- Develop initial prototype
- Test prototype with desired end users
- Iterate on prototype based on user feedback

Deliverables:

- Testable product prototype

Phase 3: Develop Pilot Planning Tool (6 months: January – June 2025)

Phase 3 will involve the actual development of the pilot planning tool. User testing and agile iteration will continue throughout, with progressive increases in functionality developed over the course of the phase.

Tasks:

- Integrate target data sources
- Develop application backend and algorithms for locating and prioritizing LID projects
- Develop user interface
- User testing and refinement of iteratively developed planning tool

Deliverables:

- *DROPS* planning tool deployed publicly

Phase 4: Write Final Report (3 months: July – September 2025)

Phase 4 will be focused on writing up and documenting all research findings, including documentation of the tools functionality, primary use cases, as well as any remaining gaps and opportunities for future work.

Tasks:

- Document tool functionality
- Document learnings from interviews and user research
- Outline vision for future resource planning and opportunities to build on work

Deliverables:

- *DROPS* Final Report

It is possible that phases 1 and 4 could be broken out for individual funding if the desired deliverable were a research report documenting needs, opportunities, and feasibility for a stormwater planning tool. This would not accomplish the development of a pilot planning tool itself.

Potential Implementation Challenges and Solutions:

Implementing the *DROPS* tool presents several challenges and prerequisites that need to be carefully managed to ensure its success. A breakdown of these potential issues and strategies for addressing them is below.

1. Data Acquisition and Management:

- Challenge: The effectiveness of *DROPS* hinges on the quality and quantity of data it can access. Gathering comprehensive, accurate, and up-to-date data on groundwater levels, meteorological patterns, and urban infrastructure can be challenging.
- Solution: Establish partnerships with local government agencies, environmental organizations, and academic institutions to access relevant data. The CaDC has a demonstrated track record in building strong intersectoral data sharing partnerships.

2. Funding and Resource Allocation:

- Challenge: Securing adequate funding for the development, deployment, and maintenance of *DROPS* could be a significant hurdle.
- Solution: Explore a variety of funding sources (such a USBR Applied Sciences grant) to grow the tool after this initial pilot in the Verdugo and Raymond basins (FMWD / PWP / GWP service area).

3. User Acceptance and Training:

- Challenge: Resistance to change and a lack of familiarity with new technologies can hinder the adoption of *DROPS* by water managers and other stakeholders.
- Solution: Design *DROPS* with a user-friendly interface and provide comprehensive training and ongoing support to users. Engage with stakeholders early in the development process to incorporate their feedback and ensure the tool meets their needs.

4. Scalability and Flexibility:

- Challenge: The tool must be scalable to accommodate different sizes and types of water systems and flexible enough to be adapted to various geographic and climatic conditions.

- Solution: Develop *DROPS* with a modular design that allows for customization and scalability.
5. Long-term Sustainability and Support:
- Challenge: Ensuring the long-term viability and relevance of *DROPS*, including regular updates and technical support.
 - Solution: Work through the CaDC which has a proven track record of piloting, developing and scaling impactful open-source water data analytics.

By proactively addressing these challenges and prerequisites, the implementation of *DROPS* can be streamlined, ensuring it becomes a valuable tool in optimizing water resource management and planning.

Partner Roles and Expertise: The roles and expertise of each project partner are described below. Together, the proposal team brings strong experience in agile software development, advanced data analysis and integration, and infrastructure project planning.

FMWD, GWP, and PWP will serve as the lead member agencies for the project. FMWD, PWP, and GWP's role will include sponsoring the project with \$10,000 in matching funds, helping to provide overall vision for the water supply outcomes from *DROPS* usages, and supporting outreach to regional stakeholders to solicit feedback, user training, and other involvement.

Crescenta Valley Water District will serve as co-program manager. Their role will include the contribution of \$24,900 in matching funds and will include project management assistance such as contributions to defining specific water supply outcomes. CVWD will also serve as a prototypical end user of *DROPS*, providing timely feedback and testing as development proceeds through tight integration with the development team.

California Data Collaborative will serve as the primary technical implementer of the project by conducting user research with target end users to define program features, leading design of the software, and overseeing software development, hosting, and distribution. For eight years, the CaDC has brought together tech-forward water utilities to invest in the design and development of open-source data analysis software tools that inform its member agencies' operational decisions. The CaDC's commitment to open-source software design and development results in scalable and cost-effective data tools that allow member agencies to quantify the value of their water resiliency investments and develop targeted interventions to support water reliability. Powered by industry professionals and expert technologists, the CaDC sees data and technology as a tool to realize a more reliable, resilient, and sustainable future.

Permits

While there will be permits associated with building actual stormwater projects, this proposal is for research and the development of a pilot planning tool and there are no permits required for the proposal.

I. Criteria Five - Costs

Project matching funds will be provided by FMWD (\$10,000), PWP (\$10,000), GWP (\$10,000), and CVWD (\$24,900). All project tasks will be funded 50% by matching funds and 50% by MWD funds, and all project funds will go towards the CaDC who will develop the *DROPS* tool. In-kind support will be provided by CVWD and FMWD to contribute to software design, user testing, and validation.

Study Total Costs					
Cost Category	Non-Metropolitan Share (Funding Match)			Requested MWD Funding	Total
	Source	Funding Status	Amount		
Phase 1: Discovery & Technical Requirements	FMWD / PWP / GWP / CVWD	Committed	\$8,235	\$8,235	\$16,470
Phase 2: Create Wireframes and Design Prototype	FMWD / PWP / GWP / CVWD	Committed	\$10,980	\$10,980	\$21,960
Phase 3: Develop Pilot Planning Tool	FMWD / PWP / GWP / CVWD	Committed	\$30,195	\$30,195	\$60,390
Phase 4: Write Final Report	FMWD / PWP / GWP / CVWD	Committed	\$5,490	\$5,490	\$10,980
Grand Total			\$54,900	\$54,900	\$109,800

Development of *DROPS* will be guided by the principles of agile software development and project management to ensure a cost-effective effective use of resources. By adopting an iterative development process, the project ensures that each stage contributes meaningful value, allowing for a prudent allocation of budget and resources. FMWD, GWP, PWP and CVWD are all ready to proceed with matching funds. Funding amounts are within signing authorities and will be sent to the FMWD as the lead agency prior to signing the FSA Funding Program agreement.

J. Appendix A: Support Letters



**RAYMOND BASIN
MANAGEMENT
BOARD**

February 1, 2024

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San Gabriel County Water District

City of Sierra Madre

Sunny Slope Water District

Valley Water Company

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 N. Alameda Street
Los Angeles, CA 90012

**RE: Letter of Support for the Foothill Municipal Water District,
Crescenta Valley Water District and California Data
Collaborative's Project Application**

Dear Mr. Jordan:

On March 26, 1984, the Court appointed the Raymond Basin Management Board as Watermaster to administer and enforce the Raymond Basin Judgment that had established water rights and the responsibility to effectively manage the quantity and quality of water in the Raymond groundwater basin (Raymond Basin).

Foothill Municipal Water District, (FMWD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) have prepared a proposal to the Metropolitan Water District for a grant to fund the development of the Open Stormwater Project in California to assist local water suppliers with integrating, visualizing, and developing first pass planning tools to prioritize low impact development stormwater capture and California friendly landscaping projects. We support this grant application and focus on improving the quality, availability, and usability of data to enhance water supply reliability over the long run, including water efficiency and drought management.

As the Watermaster, responsible for managing groundwater supplies in the Raymond Basin, we have a significant interest in supporting open planning tools that have the potential to assist in the overall management, preservation, and enhancement of groundwater supplies. Should this project be funded, we would welcome the opportunity to participate in any aspect relating to groundwater quality and supplies.

Mr. Jonathan Jordan
February 1, 2024
Page 2

In consideration of the foregoing, we would like to express our support for the FMWD, CVWD and CaDC project grant application.

If you have any questions, please contact me at (626) 815-1300, or by email at kelly@watermaster.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Gardner", with a stylized flourish at the end.

Kelly L. Gardner
Executive Officer
Raymond Basin Management Board



P.O. BOX 1
PASADENA, CALIFORNIA 91102
WWW.ARROYOSFOOTHILLS.ORG
626.796.0782

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Biology-Modeling

STAFF
John Howell
CEO, General Counsel

Barbara Goto
Director of Operations

Tim Martinez
*Land & Program
Administrator*

Auxenia Grace Privett-

Jonathan Jordan

Metropolitan Water District of Southern California

FSAfundingprogram@mwdh2o.com

February 5, 2024

I write on behalf of Arroyos Foothills Conservancy and the Friends of the Rosemont Preserve in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California native landscaping projects.

We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and ground water recharge.

As a local environmental organization, we have a strong interest in supporting stormwater capture projects that function to replenish groundwater depleted by development. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential areas for habitat restoration and distributed stormwater capture projects provides a valuable service to the water community. We understand this fund could make funds available for a planned project we have at our Rosemont Preserve property which would help CVWD quantify water sequestration benefits.

In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform as it relates to potential ecological benefits.
- Testing the analytics tool and providing feedback to ensure it works in the Rosemont Preserve.
- Collaboratively engaging on implementing solutions to capture stormwater to facilitate percolation into the soil and promote groundwater recharge at the Rosemont Preserve.

We are encouraged by the idea of local water districts having the capacity to pursue and evaluate opportunities elsewhere with the help of this evaluation tool.

Sincerely,

John Howell

Chief Executive Officer

(626) 796-0782



**WATER AND
POWER**

February 2, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944

I write on behalf of Burbank Water and Power in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Open Stormwater project in California to assist local water suppliers with integrating, visualizing and developing first pass planning tool to prioritize low impact development stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a municipal agency, we have a strong interest in supporting open planning tools to support green infrastructure for stormwater capture and water quality improvements. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets distributed stormwater capture projects provides an invaluable service to the water community.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,

Richard Wilson, P.E.

A handwritten signature in black ink, appearing to read "Richard Wilson".

Assistant General Manager - Water
Burbank Water and Power
164 West Magnolia Blvd.
Burbank, CA 91502



Western Municipal Water District
14205 Meridian Parkway,
Riverside, CA 92518
District Business | 951.571.7100
Customer Service | 951.571.7104

Craig D. Miller
General Manager

Mike Gardner
Division 1

Gracie Torres
Division 2

Brenda Dennstedt
Division 3

Laura Roughton
Division 4

Fauzia Rizvi
Division 5

January 29, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944

FUTURE SUPPLY ACTIONS FUNDING PROGRAM – LETTER OF SUPPORT

Dear Mr. Jordan:

I write on behalf of Western Municipal Water District in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a Southern California water supplier, my agency has a strong interest in supporting open planning tools to support stormwater capture. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets and distributed stormwater capture projects provides a valuable service to the water community. In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform.
- Allowing the data that we already share with the CaDC to be used to inform the software architecture, and possibly sharing additional data on a case-by-case basis.
- Testing the analytics tool and providing feedback to ensure that it meets our needs.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,



Craig D. Miller
General Manager



January 30, 2024

Mr. Jonathan Jordan
Metropolitan Water District of Southern California
FSAfundingprogram@mwdh2o.com

I write on behalf of Moulton Niguel Water District in support of the Foothill Municipal Water District (FWMD), Crescenta Valley Water District (CVWD) and California Data Collaborative's (CaDC) proposal to the Metropolitan Water District for a grant to fund the development of the Data-Driven Resource Optimization and Planning System (DROPS) project in California to assist local water suppliers with integrating, visualizing and developing a regional planning tool to prioritize low impact development, stormwater capture and California friendly landscaping projects. We strongly support this grant application and the focus on improving the quality, availability, and usability of data to enhance water supply reliability, water efficiency, and drought management activities.

As a Southern California water supplier, my agency has a strong interest in supporting open planning tools to support stormwater capture. Integrating existing remote sensing, administrative and other public data to help agencies prioritize potential green streets and distributed stormwater capture projects provides a valuable service to the water community. In the event that this project is funded, we would expect our role in the DROPS project to include:

- Providing input to inform the design and functionality of the software platform.
- Allowing the data that we already share with the CaDC to be used to inform the software architecture, and possibly sharing additional data on a case-by-case basis.
- Testing the analytics tool and providing feedback to ensure that it meets our needs.

We look forward to working with you to enhance water supply reliability, water efficiency, water equity and drought management activities by improving the quality, availability, and usability of data that are critical for effective water management.

Sincerely,



Johnathan Cruz
Director of Financial Planning & Innovation
Moulton Niguel Water District
26161 Gordon Road, Laguna Hills, CA

Appendix 1 -- Illustrative alpha prototype

Below is a preliminary research project that provides some of the functionality envisioned in DROPs. This example examines the stormwater capture potential at CVWD's Eagle Canyon reservoir by the Rosemont Preserve. The code for this [pre-alpha tool](#) can be accessed at this [link](#). The tool ingests high resolution satellite imagery (60cm) to determine impervious areas, OpenStreetMaps building footprints, rainfall depth provided by the city of LA and climate projection information in order to provide an automated approach to estimate runoff potential both under present and future climate conditions.

Entire site

Select the slope of your site:

Gently Sloping

Draw your polygon on the map below:

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Search...

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