COASTSIDE COUNTY WATER DISTRICT

766 MAIN STREET

HALF MOON BAY, CA 94019

REGULAR MEETING OF THE BOARD OF DIRECTORS

Tuesday, June 13, 2023 - 7:00 p.m.

The Public may attend this meeting in person at the District Office located at 766 Main Street, Half Moon Bay or choose to watch and/or participate in the public meeting by joining the meeting through the Zoom Videoconference link provided below. The public may also join the meeting by calling the below listed teleconference phone number.

The meeting will begin at 7:00 p.m.

Join Zoom Meeting
https://us06web.zoom.us/j/88691894625?pwd=UFBnaVYrSUNtUTE3NHlRZDFrVDhnZz09

Meeting ID: 886 9189 4625
Passcode: 182549
One tap mobile
+16699006833,,88691894625#,,,,*182549# US (San Jose)

Dial by your location
+1 669 900 6833 US (San Jose)

Meeting ID: 886 9189 4625
Passcode: 182549
Find your local number: https://us06web.zoom.us/u/kbyQAbTp4H

Procedures to make a public comment with Zoom Video/Conference – All participants except the Board Members and Staff are muted on entry and video is disabled. Participants may not unmute themselves unless asked to unmute by the Moderator.

- ***From a computer:*** *(1) Using the Zoom App. at the bottom of your screen, click on "Participants" and then "Raise Hand". Participants will be called to comment in the order in which they are received.*
- ***From a phone:*** *Using your keypad, dial *9, and this will notify the Moderator that you have raised your hand. The Moderator will call on you by stating the last 4 digits of your phone number.*

The Coastside County Water District (CCWD) does not discriminate against persons with disabilities. Upon request, the agenda and agenda packet materials can be provided in a format to accommodate special needs. If you require a copy of the agenda or related materials in an

alternative format to accommodate a disability, or if you wish to attend this public meeting and will require special assistance or other special equipment, please call the District at (650) 726-4405 in advance and we will make every reasonable attempt to provide such an accommodation.

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the CCWD District Office, located at 766 Main Street, Half Moon Bay, CA at the same time that the public records are distributed or made available to the legislative body.

This agenda and accompanying materials can be viewed on Coastside County Water District's website located at: www.coastsidewater.org.

The Board of the Coastside County Water District reserves the right to take action on any item included on this agenda.

1) ROLL CALL

2) PLEDGE OF ALLEGIANCE

3) PUBLIC COMMENT

At this time members of the public may address the Board of Directors on issues not listed on the agenda which are within the purview of the Coastside County Water District. Comments on matters that are listed on the agenda may be made at the time the Board is considering each item. Each speaker is allowed a maximum of three (3) minutes. Members of the public attending in-person must complete and submit a speaker slip. Members of the public attending via Zoom must first "raise hand" and the Moderator will "ask to unmute". The President of the Board will recognize each speaker, at which time the speaker can provide their comments to the Board.

4) CONSENT CALENDAR

The following matters before the Board of Directors are recommended for action as stated by the General Manager. All matters listed hereunder constitute a Consent Calendar, are considered as routine by the Board of Directors, and will be acted upon by a single vote of the Board. There will be no separate discussion of these items unless a member of the Board so requests, in which event the matter shall be removed from the Consent Calendar and considered as a separate item.

A. Approval of disbursements for the month ending May 31, 2023:
Claims: $ 1,362,859.59; Payroll: $ 193,470.13 for a total of $ 1,556,329.72 (attachment)
May 2023 Monthly Financial Claims reviewed and approved by Director Muller
B. Acceptance of Financial Reports (attachment)
C. Approval of Minutes of May 9, 2023, Special Board of Directors Meeting (attachment)
D. Approval of Minutes of May 9, 2023, Regular Board of Directors Meeting (attachment)
E. Installed Water Connection Capacity and Water Meters Report (attachment)
F. Total CCWD Production Report (attachment)
G. CCWD Monthly Sales by Category Report May 2023 (attachment)
H. Leak/Flushing Report – May 2023 (attachment)

I. Monthly Rainfall Reports (attachment)
J. SFPUC Hydrological Conditions Report – April 2023 and May 2023 (attachment)
K. Water Service Connection Transfer Report for May 2023 (attachment)

5) MEETINGS ATTENDED / DIRECTOR COMMENTS

6) GENERAL BUSINESS

A. Waive the Procedural Requirements for Sealed Competitive Bids and Authorize the General Manager to Procure a New Ford F-250 Diesel 4x4 Crew Cab Truck (attachment)
B. Approval of Professional Services Agreement with EKI Environment & Water, Inc. for Engineering Services for the Highway 92 Potable Water Pipeline Phase 1 Project (attachment)
C. Approval of Professional Services Agreement with Water Works Engineers, LLC for a Water Reuse Feasibility Study (attachment)
D. Approval of Salary Schedule with a Cost-of-Living Adjustment Increase for FY 2023-2024 effective July 1, 2023 (attachment)
E. Approval of Fiscal Year 2023-2024 Operations and Maintenance Budget and Fiscal Year 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program (attachment)
F. Nunes Water Treatment Plant Upgrades Project Update #22 (attachment)

7) MONTHLY INFORMATIONAL REPORTS

A. General Manager's Report (attachment)
B. Superintendent of Operations Report (attachment)
C. Water Resources Informational Report (attachment)

8) DIRECTOR AGENDA ITEMS – REQUESTS FOR FUTURE BOARD MEETINGS

9) ADJOURNMENT

COASTSIDE COUNTY WATER DISTRICT
CLAIMS FOR MAY 2023

CHECKS				
CHECK DATE	**CHECK NO.**	**VENDOR**		**AMOUNT**
05/04/2023	32182	BADGER METER, INC.	$	66.00
05/04/2023	32183	JON BRUCE	$	310.00
05/04/2023	32184	CALIFORNIA C.A.D. SOLUTIONS, INC	$	1,200.00
05/04/2023	32185	CHEMTRADE CHEMICALS US LLC	$	3,405.38
05/04/2023	32186	CORE & MAIN LP	$	2,602.52
05/04/2023	32187	COOPERATIVE PERSONNEL SERVICES	$	7,000.00
05/04/2023	32188	ERS INDUSTRIAL SERVICES INC.	$	1,000.00
05/04/2023	32189	GRAINGER, INC.	$	192.80
05/04/2023	32190	DUSTIN JAHNS	$	34.00
05/04/2023	32191	LAUNCH! CONSULTING, INC.	$	17,827.50
05/04/2023	32192	ELZA LEFEVRE	$	3,460.00
05/04/2023	32193	MERCHANTS BANK OF COMMERCE	$	13,710.00
05/04/2023	32194	MISSION UNIFORM SERVICES INC.	$	64.52
05/04/2023	32195	MONTEREY BAY ANALYTICAL SERVICES, INC.	$	165.00
05/04/2023	32196	NORTH AMERICAN FENCE & RAILING	$	7,452.00
05/04/2023	32197	PAPE MACHINERY EXCHANGE	$	645.87
05/04/2023	32198	RANGER PIPELINES, INC.	$	123,390.00
05/04/2023	32199	ROGUE WEB WORKS, LLC	$	615.60
05/04/2023	32200	STRAWFLOWER ELECTRONICS	$	21.82
05/04/2023	32201	UNDERGROUND REPUBLIC WATER WORKS, INC.	$	650.78
05/04/2023	32202	SWIFTCOMPLY US OPCO, INC	$	3,600.00
05/12/2023	32203	BREANA MCMAHON	$	60.36
05/12/2023	32204	HEALTH BENEFITS ACWA-JPIA	$	40,936.61
05/12/2023	32205	BARTKIEWICZ, KRONICK & SHANAHAN	$	577.50
05/12/2023	32206	GINA BRAZIL	$	34.00
05/12/2023	32207	COMCAST	$	286.43
05/12/2023	32208	JAMES COZZOLINO, TRUSTEE	$	275.00
05/12/2023	32209	EMPOWER RETIREMENT, LLC	$	2,643.96
05/12/2023	32210	HMB BLDG. & GARDEN INC.	$	47.53
05/12/2023	32211	HASSETT HARDWARE	$	749.02
05/12/2023	32212	HUE & CRY, INC.	$	12.00
05/12/2023	32213	IRON MOUNTAIN	$	740.77
05/12/2023	32214	MIKE MCDERMOTT	$	262.45
05/12/2023	32215	MTA PARTS, INC.	$	48.85
05/12/2023	32216	OFFICE DEPOT	$	603.76
05/12/2023	32217	PACIFIC GAS & ELECTRIC CO.	$	19,781.61
05/12/2023	32218	PACIFIC GAS & ELECTRIC CO.	$	77.29
05/12/2023	32219	PACIFICA COMMUNITY TV	$	300.00
05/12/2023	32220	REPUBLIC SERVICES	$	633.06
05/12/2023	32221	SAN FRANCISCO WATER DEPT.	$	139,606.32
05/12/2023	32222	SAN MATEO CTY PUBLIC HEALTH LAB	$	1,660.00
05/12/2023	32223	TPX COMMUNICATIONS	$	1,896.77
05/12/2023	32224	TRI COUNTIES BANK	$	5,570.03
05/12/2023	32225	UPS STORE	$	78.32
05/12/2023	32226	VALIC	$	4,773.48
05/12/2023	32227	US BANK NA	$	1,125.12
05/18/2023	32228	ADP, INC.	$	774.45
05/18/2023	32229	MONTROSE ENVIRONMENTAL SOLUTIONS, INC	$	5,302.00
05/18/2023	32230	ANDREINI BROS. INC.	$	5,993.00
05/18/2023	32231	AT&T MOBILTY	$	86.48
05/18/2023	32232	AT&T	$	492.90

05/18/2023	32233	BALANCE HYDROLOGICS, INC	$	15,719.94
05/18/2023	32234	BAY AREA WATER SUPPLY &	$	5,500.00
05/18/2023	32235	BAY ALARM COMPANY	$	703.47
05/18/2023	32236	BRUSH HOG TREE CARE, INC.	$	475.00
05/18/2023	32237	KERRY L BURKE	$	1,863.83
05/18/2023	32238	CALCON SYSTEMS, INC.	$	379.24
05/18/2023	32239	BRANDON WRIGHT	$	7,400.00
05/18/2023	32240	PETTY CASH	$	153.29
05/18/2023	32241	CORE & MAIN LP	$	673.45
05/18/2023	32242	DATAPROSE, LLC	$	2,481.74
05/18/2023	32243	DATA BUSINESS EQUIPMENT, INC.	$	447.00
05/18/2023	32244	DE LAGE LANDEN FINANCIAL SERVICES, INC.	$	1,021.78
05/18/2023	32245	EKI INC.	$	3,289.52
05/18/2023	32246	HMB BLDG. & GARDEN INC.	$	139.98
05/18/2023	32247	HANSONBRIDGETT. LLP	$	8,913.00
05/18/2023	32248	HYDROSCIENCE ENGINEERS, INC.	$	6,409.00
05/18/2023	32249	IRVINE CONSULTING SERVICES, INC.	$	4,644.14
05/18/2023	32250	IRVINE CONSULTING SERVICES, INC.	$	66.00
05/18/2023	32251	DUSTIN JAHNS	$	35.00
05/18/2023	32252	KENNEDY/JENKS CONSULTANTS	$	3,562.25
05/18/2023	32253	LAUNCH! CONSULTING, INC.	$	15,220.00
05/18/2023	32254	MISSION UNIFORM SERVICES INC.	$	66.56
05/18/2023	32255	MONTEREY BAY ANALYTICAL SERVICES, INC.	$	4,345.31
05/18/2023	32256	MTA PARTS, INC.	$	107.18
05/18/2023	32257	TOTAL COMPENSATION SYSTEMS, INC	$	1,710.00
05/18/2023	32258	UNDERGROUND REPUBLIC WATER WORKS, INC.	$	11,956.05
05/18/2023	32259	JOHN READ	$	24.22
05/23/2023	32260	AMAZON CAPITAL SERVICES, INC.	$	59.37
05/23/2023	32261	AMERICAN WATER WORKS	$	285.00
05/23/2023	32262	CARSON ANDERSON	$	35.00
05/23/2023	32263	AT&T	$	690.02
05/23/2023	32264	BAY ALARM COMPANY	$	975.00
05/23/2023	32265	CALCON SYSTEMS, INC.	$	15,306.78
05/23/2023	32266	DOMA TITLE OF CALIFORNIA, INC.	$	3,000.00
05/23/2023	32267	GRAINGER, INC.	$	141.09
05/23/2023	32268	HMB BLDG. & GARDEN INC.	$	309.78
05/23/2023	32269	IRVINE CONSULTING SERVICES, INC.	$	1,049.00
05/23/2023	32270	GLENNA LOMBARDI	$	79.00
05/23/2023	32271	OFFICE DEPOT	$	177.78
05/23/2023	32272	RYAN H. STOLL	$	162.97
05/23/2023	32273	STRAWFLOWER ELECTRONICS	$	21.82
05/23/2023	32274	JAMES TETER	$	480.00
05/23/2023	32275	NANCY TRUJILLO	$	585.64
05/23/2023	32276	SCOTT TURBON MIXER, INC	$	2,477.32
05/23/2023	32277	HD SUPPLY INC	$	543.34
05/23/2023	32278	VERIZON WIRELESS	$	2,269.14
05/30/2023	32279	RAY SAYRE	$	34.46
05/30/2023	32280	EDVARDO GUZMAN	$	19.72
05/30/2023	32281	MOLLY MURPHY	$	37.84
05/31/2023	32282	METER READINGS HOLDING, LLC	$	13,519.41
05/31/2023	32283	AMAZON CAPITAL SERVICES, INC.	$	1,694.22
05/31/2023	32284	ANDREINI BROS. INC.	$	157.50
05/31/2023	32285	CARROT-TOP INDUSTRIES, INC.	$	291.91
05/31/2023	32286	CORE & MAIN LP	$	554.10
05/31/2023	32287	CRYSTAL SMR, INC.	$	3,967.80
05/31/2023	32288	EKI INC.	$	95,765.18

05/31/2023	32289	FREYER & LAURETA, INC.	$	31,773.41
05/31/2023	32290	EMPOWER RETIREMENT, LLC	$	2,643.96
05/31/2023	32291	HACH CO., INC.	$	4,131.38
05/31/2023	32292	HASSETT HARDWARE	$	977.72
05/31/2023	32293	INTEGRATED ID SYSTEMS, INC	$	29.28
05/31/2023	32294	JACK HENRY & ASSOCIATES, INC.	$	2,416.60
05/31/2023	32295	MERCHANTS BANK OF COMMERCE	$	59,400.00
05/31/2023	32296	MISSION UNIFORM SERVICES INC.	$	66.56
05/31/2023	32297	MONTEREY BAY ANALYTICAL SERVICES, INC.	$	2,225.00
05/31/2023	32298	PUMP REPAIR SERVICE CO. INC.	$	2,240.00
05/31/2023	32299	RANGER PIPELINES, INC.	$	534,600.00
05/31/2023	32300	UBEO WEST, LLC	$	917.66
05/31/2023	32301	REDWOOD TRADING POST	$	500.00
05/31/2023	32302	STANDARD INSURANCE COMPANY	$	542.78
05/31/2023	32303	JIM STEELE	$	3,920.00
05/31/2023	32304	TEAMSTERS LOCAL UNION #856	$	1,549.00
05/31/2023	32305	UNDERGROUND REPUBLIC WATER WORKS, INC.	$	2,767.38
05/31/2023	32306	UPS STORE	$	39.86
05/31/2023	32307	UTAP PRINTING CO., INC.	$	552.34
05/31/2023	32308	VALIC	$	4,773.48
05/31/2023	32309	VERIZON CONNECT INC.	$	516.60
05/31/2023	32310	US BANK NA	$	844.85
		SUBTOTAL CLAIMS FOR MONTH	$	1,322,267.86

WIRE PAYMENTS				
05/12/2023	DFT0000460	PUB. EMP. RETIRE SYSTEM	$	17,672.81
05/31/2023	DFT0000461	PUB. EMP. RETIRE SYSTEM	$	17,955.48
05/31/2023		BANK AND CREDIT CARD FEES	$	4,963.44
		SUBTOTAL WIRE PAYMENTS FOR MONTH	$	40,591.73

TOTAL CLAIMS FOR THE MONTH	**$**	**1,362,859.59**

Coastside County Water District

Monthly Budget Report

Account Summary

For Fiscal: 2022-2023 Period Ending: 05/31/2023

		May Budget	May Activity	Variance Favorable (Unfavorable)	Percent Variance	YTD Budget	YTD Activity	Variance Favorable (Unfavorable)	Percent Variance	Total Budget
Revenue										
RevType: 1 - Operating										
1-4120-00	Water Revenue	1,034,100.00	1,003,539.38	-30,560.62	-2.96 %	11,751,700.00	10,190,343.21	-1,561,356.79	-13.29 %	13,102,800.00
	Total RevType: 1 - Operating:	**1,034,100.00**	**1,003,539.38**	**-30,560.62**	**-2.96 %**	**11,751,700.00**	**10,190,343.21**	**-1,561,356.79**	**-13.29 %**	**13,102,800.00**
RevType: 2 - Non-Operating										
1-4170-00	Water Taken From Hydrants	4,000.00	4,940.31	940.31	23.51 %	44,000.00	55,630.54	11,630.54	26.43 %	48,000.00
1-4180-00	Late Notice - 10% Penalty	4,200.00	8,273.71	4,073.71	96.99 %	45,800.00	84,448.96	38,648.96	84.39 %	50,000.00
1-4230-00	Service Connections	0.00	507.34	507.34	0.00 %	9,000.00	11,942.47	2,942.47	32.69 %	10,000.00
1-4920-00	Interest Earned	2,700.00	20,001.26	17,301.26	640.79 %	29,300.00	201,954.46	172,654.46	589.26 %	32,000.00
1-4930-00	Tax Apportionments/County Checks	0.00	5,718.31	5,718.31	0.00 %	860,000.00	1,000,939.93	140,939.93	16.39 %	950,000.00
1-4950-00	Miscellaneous Income	1,000.00	848.52	-151.48	-15.15 %	9,000.00	1,290.33	-7,709.67	-85.66 %	10,000.00
1-4955-00	Cell Site Lease Income	16,000.00	16,740.50	740.50	4.63 %	176,000.00	181,399.42	5,399.42	3.07 %	192,000.00
1-4965-00	ERAF Refund - County Taxes	0.00	0.00	0.00	0.00 %	500,000.00	621,167.13	121,167.13	24.23 %	500,000.00
	Total RevType: 2 - Non-Operating:	**27,900.00**	**57,029.95**	**29,129.95**	**104.41 %**	**1,673,100.00**	**2,158,773.24**	**485,673.24**	**29.03 %**	**1,792,000.00**
	Total Revenue:	**1,062,000.00**	**1,060,569.33**	**-1,430.67**	**-0.13 %**	**13,424,800.00**	**12,349,116.45**	**-1,075,683.55**	**-8.01 %**	**14,894,800.00**
Expense										
ExpType: 1 - Operating										
1-5130-00	Water Purchased	138,371.00	98,695.32	39,675.68	28.67 %	2,177,560.00	1,726,250.00	451,310.00	20.73 %	2,467,503.00
1-5230-00	Nunes T P Pump Expense	4,000.00	3,350.65	649.35	16.23 %	44,000.00	47,669.83	-3,669.83	-8.34 %	48,000.00
1-5231-00	CSP Pump Station Pump Expense	30,000.00	13,858.50	16,141.50	53.81 %	321,000.00	112,866.03	208,133.97	64.84 %	366,000.00
1-5232-00	Other Trans. & Dist Pump Expense	2,100.00	1,513.96	586.04	27.91 %	22,900.00	21,746.64	1,153.36	5.04 %	25,000.00
1-5233-00	Pilarcitos Canyon Pump Expense	600.00	-7,942.77	8,542.77	1,423.80 %	63,400.00	55,537.05	7,862.95	12.40 %	64,000.00
1-5234-00	Denniston T P Pump Expense	11,000.00	15,743.35	-4,743.35	-43.12 %	67,000.00	66,827.66	172.34	0.26 %	77,000.00
1-5242-00	CSP Pump Station Operations	1,000.00	920.94	79.06	7.91 %	11,000.00	11,918.80	-918.80	-8.35 %	12,000.00
1-5243-00	CSP Pump Station Maintenance	3,000.00	1,252.00	1,748.00	58.27 %	32,000.00	16,930.94	15,069.06	47.09 %	35,000.00
1-5246-00	Nunes T P Operations - General	8,000.00	5,113.11	2,886.89	36.09 %	88,000.00	92,213.19	-4,213.19	-4.79 %	97,000.00
1-5247-00	Nunes T P Maintenance	10,000.00	8,765.78	1,234.22	12.34 %	109,000.00	94,453.93	14,546.07	13.35 %	119,000.00
1-5248-00	Denniston T P Operations-General	7,000.00	3,120.77	3,879.23	55.42 %	58,000.00	52,154.66	5,845.34	10.08 %	64,000.00
1-5249-00	Denniston T.P. Maintenance	14,000.00	14,345.13	-345.13	-2.47 %	126,000.00	160,294.32	-34,294.32	-27.22 %	140,000.00
1-5250-00	Laboratory Expenses	7,000.00	7,464.31	-464.31	-6.63 %	70,000.00	51,711.16	18,288.84	26.13 %	77,000.00
1-5260-00	Maintenance - General	32,000.00	35,222.71	-3,222.71	-10.07 %	348,000.00	438,572.30	-90,572.30	-26.03 %	380,000.00
1-5261-00	Maintenance - Well Fields	0.00	0.00	0.00	0.00 %	50,000.00	9,000.00	41,000.00	82.00 %	50,000.00
1-5263-00	Uniforms	0.00	0.00	0.00	0.00 %	10,000.00	11,734.92	-1,734.92	-17.35 %	12,000.00
1-5318-00	Studies/Surveys/Consulting	15,000.00	45,440.00	-30,440.00	-202.93 %	142,000.00	193,354.32	-51,354.32	-36.17 %	157,000.00
1-5321-00	Water Resources	2,200.00	1,601.57	598.43	27.20 %	24,500.00	7,785.84	16,714.16	68.22 %	26,700.00

		May Budget	May Activity	Variance Favorable (Unfavorable)	Percent Variance	YTD Budget	YTD Activity	Variance Favorable (Unfavorable)	Percent Variance	Total Budget
1-5322-00	Community Outreach	5,000.00	6,949.00	-1,949.00	-38.98 %	53,000.00	30,174.20	22,825.80	43.07 %	68,000.00
1-5325-00	Water Shortage Program	5,000.00	0.00	5,000.00	100.00 %	45,000.00	3,829.00	41,171.00	91.49 %	50,000.00
1-5381-00	Legal	9,000.00	8,325.50	674.50	7.49 %	100,000.00	75,924.88	24,075.12	24.08 %	110,000.00
1-5382-00	Engineering	6,400.00	5,044.56	1,355.44	21.18 %	69,600.00	85,283.44	-15,683.44	-22.53 %	76,000.00
1-5383-00	Financial Services	0.00	0.00	0.00	0.00 %	21,000.00	18,010.00	2,990.00	14.24 %	23,000.00
1-5384-00	Computer Services	27,025.00	17,374.98	9,650.02	35.71 %	282,025.00	235,628.65	46,396.35	16.45 %	309,025.00
1-5410-00	Salaries/Wages-Administration	112,577.00	89,232.96	23,344.04	20.74 %	1,160,035.00	967,817.74	192,217.26	16.57 %	1,267,717.00
1-5411-00	Salaries & Wages - Field	156,693.00	151,641.88	5,051.12	3.22 %	1,614,623.00	1,577,980.67	36,642.33	2.27 %	1,764,505.00
1-5420-00	Payroll Tax Expense	19,922.00	18,374.43	1,547.57	7.77 %	205,283.00	178,940.66	26,342.34	12.83 %	224,338.00
1-5435-00	Employee Medical Insurance	43,000.00	37,370.57	5,629.43	13.09 %	461,000.00	426,415.67	34,584.33	7.50 %	505,000.00
1-5436-00	Retiree Medical Insurance	4,500.00	3,522.29	977.71	21.73 %	47,500.00	41,139.06	6,360.94	13.39 %	52,000.00
1-5440-00	Employees Retirement Plan	53,327.00	47,953.54	5,373.46	10.08 %	549,498.00	536,201.72	13,296.28	2.42 %	600,506.00
1-5445-00	Supplemental Retirement 401a	0.00	0.00	0.00	0.00 %	0.00	0.00	0.00	0.00 %	36,000.00
1-5510-00	Motor Vehicle Expense	7,000.00	5,899.78	1,100.22	15.72 %	73,000.00	75,463.57	-2,463.57	-3.37 %	80,000.00
1-5620-00	Office & Billing Expenses	35,000.00	21,009.61	13,990.39	39.97 %	359,000.00	335,206.85	23,793.15	6.63 %	412,500.00
1-5625-00	Meetings / Training / Seminars	4,000.00	2,284.89	1,715.11	42.88 %	37,000.00	40,465.60	-3,465.60	-9.37 %	41,000.00
1-5630-00	Insurance	15,000.00	13,747.66	1,252.34	8.35 %	146,000.00	143,582.84	2,417.16	1.66 %	161,000.00
1-5687-00	Membership, Dues, Subscript.	8,000.00	800.25	7,199.75	90.00 %	91,000.00	103,098.75	-12,098.75	-13.30 %	99,975.00
1-5688-00	Election Expenses	0.00	0.00	0.00	0.00 %	20,000.00	0.00	20,000.00	100.00 %	20,000.00
1-5689-00	Labor Relations	1,000.00	0.00	1,000.00	100.00 %	5,000.00	0.00	5,000.00	100.00 %	6,000.00
1-5700-00	San Mateo County Fees	2,000.00	842.17	1,157.83	57.89 %	29,400.00	17,139.21	12,260.79	41.70 %	31,400.00
1-5705-00	State Fees	1,000.00	0.00	1,000.00	100.00 %	41,000.00	42,877.71	-1,877.71	-4.58 %	42,000.00
	Total ExpType: 1 - Operating:	**800,715.00**	**678,839.40**	**121,875.60**	**15.22 %**	**9,174,324.00**	**8,106,201.81**	**1,068,122.19**	**11.64 %**	**10,197,169.00**
ExpType: 4 - Capital Related										
1-5715-00	Debt Service/CIEDB 11-099	0.00	0.00	0.00	0.00 %	335,508.00	335,507.92	0.08	0.00 %	335,508.00
1-5716-00	Debt Service/CIEDB 2016	0.00	0.00	0.00	0.00 %	322,417.00	322,417.29	-0.29	0.00 %	322,417.00
1-5717-00	Chase Bank - 2018 Loan	0.00	0.00	0.00	0.00 %	436,027.00	435,719.08	307.92	0.07 %	436,027.00
1-5718-00	First Foundation Bank - 2022	0.00	0.00	0.00	0.00 %	495,510.00	495,510.38	-0.38	0.00 %	495,510.00
	Total ExpType: 4 - Capital Related:	**0.00**	**0.00**	**0.00**	**0.00 %**	**1,589,462.00**	**1,589,154.67**	**307.33**	**0.02 %**	**1,589,462.00**
	Total Expense:	**800,715.00**	**678,839.40**	**121,875.60**	**15.22 %**	**10,763,786.00**	**9,695,356.48**	**1,068,429.52**	**9.93 %**	**11,786,631.00**
	Report Total:	**261,285.00**	**381,729.93**	**120,444.93**		**2,661,014.00**	**2,653,759.97**	**-7,254.03**		**3,108,169.00**

COASTSIDE COUNTY WATER DISTRICT
MONTHLY INVESTMENT REPORT
May 31, 2023

RESERVE BALANCES	**Current Year as of 5/31/2023**	**Prior Year as of 05/31/2022**
CAPITAL AND OPERATING RESERVE	$13,345,247.71	$16,604,384.87
RATE STABILIZATION RESERVE	$250,000.00	$250,000.00
TOTAL DISTRICT RESERVES	**$13,595,247.71**	**$16,854,384.87**

ACCOUNT DETAIL

ACCOUNTS WITH TRI COUNTIES BANK		
CHECKING ACCOUNT	$549,361.21	$4,505,051.39
CSP T & S ACCOUNT	$64,092.00	$48,114.93
MONEY MARKET GEN. FUND (Opened 7/20/17)	$19,807.06	$2,019,609.76
LOCAL AGENCY INVESTMENT FUND (LAIF) BALANCE	$12,961,187.44	$10,280,808.79
DISTRICT CASH ON HAND	$800.00	$800.00
TOTAL ACCOUNT BALANCES	**$13,595,247.71**	**$16,854,384.87**

This report is in conformity with CCWD's Investment Policy.

COASTSIDE COUNTY WATER DISTRICT
CAPITAL IMPROVEMENT PROJECTS - STATUS REPORT
FISCAL YEAR 2022/2023

* Approved June 2022

5/31/2023

		Status	Approved* CIP Budget FY22/23	Actual To Date FY22/23	Projected FY22/23	Variance vs. Budget	% Completed	Project Status/ Comments
Equipment Purchases & Replacement								
06-03	SCADA/Telemetry/Electrical Controls Replacement	ongoing	$ 50,000			$ 50,000		
99-02	Vehicle Fleet Replacement	Completed	$ 40,000	$ 34,476	$ 34,476	$ 5,524	100%	
Facilities & Maintenance								
09-09	Fire Hydrant Replacement	ongoing	$ 140,000	$ 102,771	$ 140,000	$ -	73%	
23-13	Pilarcitos Canyon Culvert Replacement	TBD	$ 40,000	$ 1,753	$ 1,753	$ 38,247	0%	Planned for Summer 2023
99-01	Meter Change Program	ongoing	$ 10,000	$ -	$ 10,000	$ -	0%	
Pipeline Projects								
20-08	Grandview Pipeline Replacement Project	Completed	$ 1,650,000	$ 1,677,297	$ 1,677,297	$ (27,297)	100%	
13-02	Pipeline Replacement Under Creek at Pilarcitos Ave/Strawflower	Completed	$ 400,000	$ 370,286	$ 370,286	$ 29,714	100%	
14-01	Highway 92 - Replacement of Welded Steel Line	In design	$ 700,000	$ 45,687	$ 75,000	$ 625,000	0%	
Pump Stations / Tanks / Wells								
21-07	Carter Hill Tank Improvement Project	In design	$ 200,000	$ 45,371	$ 60,000	$ 140,000	0%	At 100% design
09-18	Denniston Well Field Replacements	TBD	$ 500,000		$ 10,000	$ 490,000	0%	Consulting work in FY 2022-2023; construction pushed to FY 2023-2024 and future
23-03	CSP Fire Sprinklers	On order	$ 150,000		$ 46,000	$ 104,000	0%	
19-05	Tanks - THM Control	Ongoing	$ 50,000			$ 50,000	0%	Delayed to FY2023/2024
Water Supply Development								
14-25	San Vicente/Denniston Water Supply Development	ongoing	$ 300,000	$ 200,431	$ 240,000	$ 60,000	n/a	
17-12	Recycled Water Project Development	ongoing	$ 100,000			$ 100,000	n/a	Feasilbility study - to occur over FY 2023/2024
Water Treatment Plants								
20-14	Nunes Water Treatment Plant Improvement Project	Construction	$ 3,500,000	$ 2,411,121	$ 2,650,000	$ 850,000	70%	Construction started August 2021; To be completed in FY 2023/2024; moved $1M to FY2023/2024 due to supply chain issues
23-05	Sodium Hypochlorite Generator Replacement (Nunes)	in design	$ 200,000	$ 8,411	$ 8,411	$ 191,589	0%	In design - will occur FY 2023/2024
23-09	Denniston Contact Clarifier Hatch Replacements	in design	$ 75,000	$ 14,257	$ 14,257	$ 60,743	0%	Move to Fall 2023 when Denniston is offline
UNSCHEDULED/NEW CIP ITEMS FOR CURRENT FISCAL YEAR 2022/2023								
23-08	Nunes Magnetic Meter Project	in process		$ 147,482	$ 250,000	$ (250,000)	90%	Planned for FY 2023-2024 - moved up to FY 2022-2023
23-11	CSP Screens/Valves - Tech Memo/Study	in process		$ 10,232	$ 25,000	$ (25,000)	41%	Tech memo - Kennedy Jenks to review alternatives
NN-00	Unscheduled CIP		$ 100,000			$ 100,000	0%	

COASTSIDE COUNTY WATER DISTRICT
CAPITAL IMPROVEMENT PROJECTS - STATUS REPORT
FISCAL YEAR 2022/2023

5/31/2023

* Approved June 2022

		Status	Approved* CIP Budget FY22/23	Actual To Date FY22/23	Projected FY22/23	Variance vs. Budget	% Completed	Project Status/ Comments
23-02	Poplar Street Pipeline Replacement	in process		$ 41,332	$ 41,332	$ (41,332)	0%	Now planned for Fall, 2023 - Pushed out due to City delays (District's project must be coordinated with City project)
23-10	Highway 92 - Emergency Restoration Project	in design		$ 105,178	$ 125,000	$ (125,000)	0%	Construction estimated to occur in FY2023-2024
	NEW FY2022/2023 CIP TOTAL		**$ 8,205,000**	**$ 5,216,084**	**$ 5,778,812**	**$ 2,426,188**		

FY2021/2022 CIP Carryover Projects

22-01	Miramontes Point Road Water Main Replacement	in design	$ -	$ 35,927	$ 40,000	$ (40,000)	n/a	
22-05	ACCELA Planning Software	in process	$ -	$ 18,678	$ 20,000	$ (20,000)	80%	
22-06	CSP Pump #2 Replacement (2022)	in process	$ -	$ 82,687	$ 82,687	$ (82,687)	100%	
22-07	Medio Creek and Magellan Hwy 1 Crossing/Miramar Dead Ends	in design	$ -	$ 32,252	$ 40,000	$ (40,000)	n/a	
22-08	WIMS Software Implementation	in process	$ -	$ 40,375	$ 40,375	$ (40,375)	40%	
71-2112	Nunes Fuel Tank Replacement	completed		$ 5,140	$ 5,140	$ (5,140)	100%	Completed in FY2022-funded by CalOES
	FY2021/2022 CARRYOVER PROJECTS		**$ -**	**$ 215,058**	**$ 228,202**	**$ (228,202)**		

Green = approved by the Board/in process

TOTAL - FY 2022/2023 CIP + PRIOR YEAR CARRYOVER	**$ 8,205,000**	**$ 5,431,143**	**$ 6,007,015**	**$ 2,197,985**

Legal Cost Tracking Report
12 Months At-A-Glance

Acct. No.5681
Patrick Miyaki - HansonBridgett, LLP
Legal

Month	Admin (General Legal Fees)	Water Supply Development	Recycled Water	Uninstalled Connection Transfer Program	Capital Improvement Projects	Labor & Employment	Election (CVRA)	Cell Tower Leases	Public Records Requests	Litigation	Non CIP / Infrastructure (Project Review) *Reimbursable*	Total
May-22	4,986	1,580	474		295	6,597						**13,932**
Jun-22	18,524	2,528										**21,052**
Jul-22	6,666											**6,666**
Aug-22	9,090	3,753		706								**13,548**
Sep-22	4,898	553		919								**6,370**
Oct-22	7,071	988										**8,058**
Nov-22	11,284	1,857			900			158				**14,198**
Dec-22	4,760	2,884		512	395	277		711	1,861			**11,399**
Jan-23	3,486			963	2,646				1,938			**9,033**
Feb-23	3276	504			2,349				378			**6,507**
Mar-23	3150	3396			2,778				1,050			**10,374**
Apr-23	1872				1,551				5,490			**8,913**
TOTAL	**79,060**	**18,041**	**474**	**3,099**	**10,914**	**6,873**	**0**	**869**	**10,717**	**0**	**0**	**130,048**

Engineer Cost Tracking Report
12 Months At-A-Glance

Acct. No. 5682
JAMES TETER
Engineer

Month	Admin & Retainer	CIP	Studies and Non - CIP Project	TOTAL	Reimburseable from Projects
Jun-22	480		1,268	**1,748**	1,268
Jul-22	480		1,690	**2,170**	1,690
Aug-22	480		5,714	**6,194**	5,714
Sep-22	480			**480**	
Oct-22	480			**480**	
Nov-22	480			**480**	
Dec-23	480			**480**	
Jan-23	480			**480**	
Feb-23	480			**480**	
Mar-23	480			**480**	
Apr-23	480			**480**	
May-23	480			**480**	
TOTAL	**5,760**	**0**	**8,672**	**14,432**	**8,672**

Calcon T&M Projects Tracking

5/31/2023

Project No.	Name	Status	Proposal Date	Approved Date	Project Budget	Project Actual thru 6/30/22	Project Billings FY2022-2023
FY 2021-2022 Open Projects:							
	Crystal Springs Solar System Backup			12/20/2021		$18,739.00	
	Nunes Tank Radio Solar Backup			12/20/2021		$19,927.00	
	Denniston CC Junction Box				$9,558.00		$ 9,558.00
	Nunes Magnetic Flow Meter			9/28/2022	$19,585.88		$ 19,585.88
		Open Projects - Subtotal				$38,666.00	$29,143.88
Other: Monthly Maintenance							
	Tanks						
	Crystal Springs Maintenance						
	Nunes Maintenance						$ 20,200.46
	Denniston Maintenance						$ 28,670.16
	Distribution System						$ 40,010.86
	Wells						
	Cellular Telemetry						$ 3,281.30
		Subtotal Maintenance					$ 92,162.78
		FINAL TOTAL FY 2022/2023					$121,306.66

EKI Environment & Water
Engineering Services Billed FY 2020-2021 to FY 2021-2023
Billed through 5/31/2023

	Contract Date	Not to Exceed Budget	Status	FY2020-2021	FY2021-2022	FY2022-2023
CIP Project Management						
Fiscal Year 2019-2020	7.29.2019	$ 180,000.00	Complete	$ 1,138.80		
Fiscal Year 2020-2021	8.13.2020	$ 100,000.00	Complete	$ 66,805.44	$ 33,162.48	
Fiscal Year 2021-2022 - Non-Complex Main line Extension Services	10.15.2021	$ 25,000.00	Open		$ 10,301.46	$ 5,875.22
Fiscal Year 2021-2022 - Drought Relief Grant Application	12.2021		Complete		$ 21,074.82	
Fiscal Year 2022-2023 - Capital Improvement Management	4.20.2022	$ 117,000.00	Open		$ 5,453.76	$ 65,735.48
Fiscal Year 2022-2023 - Emergency Engineering Services	2/10/2023	$ 28,000.00	Open			$ 26,164.58
Fiscal Year 2022-2023 - Emergency FEMA Grant Application		$ 15,000.00	Open			$ 11,672.44
Sub Total - CIP Project Management Services		$ 465,000.00		$ 67,944.24	$ 69,992.52	$ 109,447.72

Denniston Culvert Replacement-Engineering Services during Construction	**18-13**	7.8.2020	$ 48,800.00	Complete	$ 47,647.17		
Pine Willow Oak Water Main Replacement Project	**18-01**	7.29.2019	$ 69,700.00	Complete	$ 4,991.74		
Grandview/Silver/Terrace/Spindrift Under Hwy 1 PreDesign	**20-08**	10.15.2019	$ 59,600.00	Complete	$ 40,597.27		
Grandview Water Main Replacement Project (Design, Bid Support, construction support)	**20-08**	7.29.2019	$ 56,100.00	Complete	$ 5,144.36		
Grandview Crossing at Hwy 1	**20-08**	2.9.2021	$ 156,500.00	Complete	$ 73,285.99	$ 37,244.28	$ 30,990.05
Grandview Crossing at Hwy 1 - Construction Management Services	**20-08**	9.16.2022	$ 132,800.00	Complete			$ 106,309.55
Pilarcitos Creek Crossing Water Main Replacement Preliminary Design	**13-02**	8.27.2019	$ 104,600.00	Complete	$ 1,226.50		
Pilarcitos Creek Crossing Water Main Replacement Design	**13-02**	7.14.2020	$ 99,900.00	Complete	$ 40,191.58	$ 31,454.78	$ 28,025.40
Pilarcitos Creek Crossing Water Main Replacement Field Surveys/Land Descriptions	**13-02**		$ 28,600.00	Complete		$ 20,059.82	
Pilarcitos Creek Crossing Water Main Replacement-Engineering Services during construction	**13-02**	9.13.2022	$ 132,800.00	Complete			$ 4,681.04
Highway 92 Potable Water Pipeline Replacement Project Design	**14-01**	7.2.2021	$ 24,800.00	Open		$ 18,139.94	$ 6,631.56
Highway 92 Environmental Permitting - Emergency Restoration	**23-10**	3.15.2023	$ 44,800.00	Open			$ 321.36
Highway 92 Potable Water Pipeline Emergency Geotechnical	**23-10**	3.3.2023	$ 63,400.00	Open			$ 43,712.20
Highway 92 Potable Water Pipeline Emergency Restoration-Design	**23-10**	3.15.2023	$ 219,100.00	Open			$ 22,199.57
Highway 92 Potable Water Pipeline Future Phases Geotechnical	**14-01**	3.3.2023	$ 54,200.00	Open			$ 20,635.62
Miramontes Point Road Water Main Replacement	**22-01**	7.14.2021	$ 177,300.00	Open		$ 92,356.96	$ 46,900.62
Purisima Way Water Main Replacement	**14-29**	10.18.2021	$ 20,400.00	Complete		$ 19,840.91	
Medio Crossing - Alternatives Evaluation for Pipeline Replacement	**22-07**	4.25.2022	$ 21,900.00	Complete		$ 8,410.48	$ 13,419.12
Medio Creek and Magellan Pipeline/Miramar Deadends Design	**22-07**	3.15.2023	$ 138,900.00	Open			$ 16,704.79
Poplar Street Water Main Replacement Project	**23-02**	10.3.2022	$ 29,200.00	Open			$ 21,833.64

Total - All Services	**$ 281,028.85**	**$ 297,499.69**	**$ 471,812.24**

COASTSIDE COUNTY WATER DISTRICT

766 MAIN STREET

HALF MOON BAY, CA 94019

MINUTES OF THE SPECIAL MEETING OF THE BOARD OF DIRECTORS

Tuesday, May 9, 2023

The Public was able to participate in the public meeting by joining the meeting in person or through the Zoom Video Conference link provided. The public was also able to join the meeting by calling a provided teleconference phone number.

1) ROLL CALL –Vice President Chris Mickelsen called the meeting to order at 6:15 p.m. Present at roll call: Director Ken Coverdell; Director Bob Feldman, Director Glenn Reynold. President John Muller was absent.

Also present: Mary Rogren, General Manager, Patrick Miyaki, Legal Counsel

2) PUBLIC COMMENT – There were no public comments.

3) CLOSED SESSION

Pursuant to California Government Code Section 54956.9(d)(2)
Conference with Legal Counsel – Anticipated Litigation
Significant Exposure to Litigation
One Potential Case.

4) RECONVENE TO OPEN SESSION

Public report of closed session action – No Action Taken

5) ADJOURNMENT – Board Meeting Adjourned at 7:00 p.m.

Respectfully submitted,

_____

Mary Rogren, General Manager
Secretary to the District

_____

Chris Mickelsen, Vice President
Board of Directors

COASTSIDE COUNTY WATER DISTRICT

766 MAIN STREET

HALF MOON BAY, CA 94019

MINUTES OF THE REGULAR MEETING OF THE BOARD OF DIRECTORS

Tuesday, May 9, 2023

The Public was able to participate in the public meeting by joining the meeting in person or through the Zoom Video Conference link provided. The public was also able to join the meeting by calling a provided teleconference phone number.

1) ROLL CALL –Vice President Chris Mickelsen called the meeting to order at 7:05 p.m. Present at roll call: Director Ken Coverdell; Director Bob Feldman, Director Glenn Reynold. President John Muller was absent.

Also present: Mary Rogren, General Manager, Patrick Miyaki, Legal Counsel; James Derbin, Superintendent of Operations; Cathleen Brennan, Water Resources Analyst; Gina Brazil, Office Manager; and Lisa Sulzinger, Administrative Analyst

2) PLEDGE OF ALLEGIANCE

3) PUBLIC COMMENT – There were no public comments.

4) CONSENT CALENDAR

- **A.** Approval of disbursements for the month ending April 30, 2023:
  Claims: $ 560,390.86: Payroll: $ 196,667.05 for a total of $ 757,057.91
  April 2023 Monthly Financial Claims reviewed and approved by Director Coverdell
- **B.** Acceptance of Financial Reports
- **C.** Approval of Minutes of April 11, 2023, Regular Board of Directors Meeting
- **D.** Installed Water Connection Capacity and Water Meters Report
- **E.** Total CCWD Production Report
- **F.** CCWD Monthly Sales by Category Report April 2023
- **G.** Leak/Flushing Report – April 2023
- **H.** Monthly Rainfall Reports
- **I.** SFPUC Hydrological Conditions Report – March 2023
- **J.** Notice of Completion – Grandview Water Main Replacement Project

Director Coverdell stated he had reviewed the monthly financial claims and found all to be in order.

ON MOTION BY Director Coverdell and seconded by Director Reynolds, the Board voted by roll call vote to approve the Consent Calendar:

Director Coverdell	**Aye**
Director Feldman	**Aye**
Director Reynolds	**Aye**
Vice-President Mickelsen	**Aye**
President Muller	**Absent**

5) MEETINGS ATTENDED / DIRECTOR COMMENTS

- Director Reynolds is currently attending the Association of California Water Agencies (ACWA) Spring Conference in Monterey CA.
- Vice President Mickelsen and Director Feldman will also be attending the ACWA Conference later this week.

6) GENERAL BUSINESS

A) Rescinding Ordinance 2022-01, Declaring a Water Shortage Emergency and Implementing Mandatory Water Use Restrictions and Prohibitions under Stage 2 – Water Shortage Emergency Warning – of the District's Water Shortage Contingency Plan.

Ms. Brennan summarized that since March 2022 the District has been in a Stage 2 Water Shortage Emergency. An extremely wet winter in water year 2023 has resulted in improved water supply conditions across California and the SFPUC Regional Water System. On April 11, 2023, the SFPUC rescinded its water shortage emergency but was not able to rescind the voluntary system-wide water use reduction until the State Water Resources Control Board (SWRCB) modifies or ends the emergency conservation regulations, which are due expire on June 10, 2023. With the adoption of Ordinance 2023-01, the District's Water Shortage Emergency Ordinance No. 2002-01 will be rescinded effective immediately upon the expiration or termination of the State Water Resources Control Boards Emergency Conservation Regulations and at that time the District's Stage 2 Water Shortage Contingency Plan Emergency will be over.

ON MOTION BY Director Reynolds and seconded by Director Feldman, the Board voted by roll call vote to adopt Ordinance 2023-01 rescinding Ordinance 2022-01, which declared a water shortage emergency and implemented mandatory water use restrictions and prohibitions under Stage 2 of the District's Water Shortage Contingency Plan, to be effective immediately upon the expiration or termination of the State Water Resources Control Board's emergency conservation regulation that requires the District to implement all demand reduction actions in Stage 2 of its Water Shortage Contingency Plan.

Director Coverdell	**Aye**
Director Feldman	**Aye**
Director Reynolds	**Aye**
Vice-President Mickelsen	**Aye**
President Muller	**Absent**

B) <u>Overview of Draft Fiscal Year 2023-2024 Operations and Maintenance Budget and Draft Fiscal Year 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program</u>

Staff met with the Facilities Committee on April 25, 2023, and the Finance Committee on May 2, 2023. Ms. Rogren shared her presentation, featuring a brief summary of the projected revenue, operating expenses and debt service for Operations and Maintenance Budget for Fiscal Year 2023-2024. She also provided a Draft 10-year Capital Improvement Program (Fiscal Year 2023/2024 to 2032/2034) and the resulting cash reserve impact.

C) <u>Consider Resolution 2023-05 Support of the Nomination of Ernesto A. Avila of the Contra Costa Water District to the Association of California Water Agencies ("ACWA") Vice President</u>

ACWA has invited member agencies to submit nomination to elect the positions of President and Vice President of ACWA. Ernesto A. Avila of Contra Costa Water District has requested the District's support of his nomination by submitting a supporting resolution.

ON MOTION BY Director Reynolds and seconded by Director Coverdell, the Board voted by roll call vote to adopt resolution 2023-05 support in nomination of Ernesto A. Avila of Contra Costa Water District to Association of California Water Agencies ("ACWA") Vice President

Director Coverdell	**Aye**
Director Feldman	**Aye**
Director Reynolds	**Aye**
Vice-President Mickelsen	**Aye**
President Muller	**Absent**

D) <u>Consider Resolution 2023-06 Approving Placing in Nomination John Muller as a Member of the Association of California Water Agencies ("ACWA") Region 5 Board of Directors</u>

The Nominating Committee of ACWA is currently seeking candidates for the Region 5 Board for the term of 2024-2025. Director Muller is currently on the board and has expressed interest in serving another term.

ON MOTION BY Director Reynolds and seconded by Director Coverdell, the Board voted by roll call vote to approve resolution 2023-06 placing in nomination John Muller as a Member of the Association of California Water Agencies ("ACWA") Region 5 Board of Directors.

Director Coverdell	**Aye**
Director Feldman	**Aye**
Director Reynolds	**Aye**
Vice-President Mickelsen	**Aye**
President Muller	**Absent**

E) Nunes Water Treatment Plant Upgrades Project - Update # 21

Mr. Derbin gave an update on the progress made at the Nunes Water Treatment Plant during April 2023.

7) MONTHLY INFORMATIONAL REPORTS

A. General Manager's Report

- On May 1, 2023, FEMA representatives conducted a site inspection visit to assess the damage sustained by the District in the late December 2022/early January 2023 Storms. The District's FEMA application is due by June 2, 2023.
- The Association of California Water Agencies (ACWA) is leading a coalition to oppose three legislative bills (AB460, AB 1337, and SB 389) that if passed, would significantly change California's water rights system and oversight. The General Manager has signed on to ACWA's coalition opposition letter.
- Ms. Rogren updated the Board on the recruitment of the Assistant General Manager.

B. Superintendent of Operations Report

Mr. Derbin summarized the Operation Highlights for the month of April 2023.

8) DIRECTOR AGENDA ITEMS – REQUESTS FOR FUTURE BOARD MEETINGS

There were no requests for future agenda items.

9) ADJOURNMENT – Board Meeting Adjourned at 7:46 p.m.

Respectfully submitted,

_____
Mary Rogren, General Manager
Secretary to the District

_____
Chris Mickelsen, Vice President
Board of Directors

COASTSIDE COUNTY WATER DISTRICT
Installed Water Connection Capacity & Water Meters

FY 2022 / 2023

Installed Water Meters	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
HMB Non-Priority													
0.5" capacity increase													
5/8" meter	1	1									1		**3**
3/4" meter					1								**1**
1" meter		1											**1**
1 1/2" meter													
2" meter													
3" meter													
HMB Priority													
0.5" capacity increase													
5/8" meter													
3/4" meter													
1" meter										1			**1**
1 1/2" meter													
2" meter													
County Non-Priority													
0.5" capacity increase													
5/8" meter		3	1		2	1		1			1		**9**
3/4" meter													
1" meter													
County Priority													
5/8" meter							1	1					**2**
3/4" meter													
1" meter													
1.5" meter													
Totals	1	5	1		3	1	1	2		1	2		**17**

5/8" meter = 1.0 connection
3/4" meter = 1.5 connections
1" meter = 2.5 connections
1.5" meter = 5.0 connections
2" meter = 8 connections
3" meter= 17.5 connections

FY 22/23 Capacity (5/8" connection equivalents)	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Totals
HMB Non-Priority	1	3.5			1.5						1		**7**
HMB Priority										2.5			**2.5**
County Non-Priority		3	1		2	1	1	1			1		**10**
County Priority								1					**1**
Total	1	6.5	1		3.5	1	1	2		2.5	2		**21**

TOTAL CCWD PRODUCTION (MG) ALL SOURCES- FY 2023

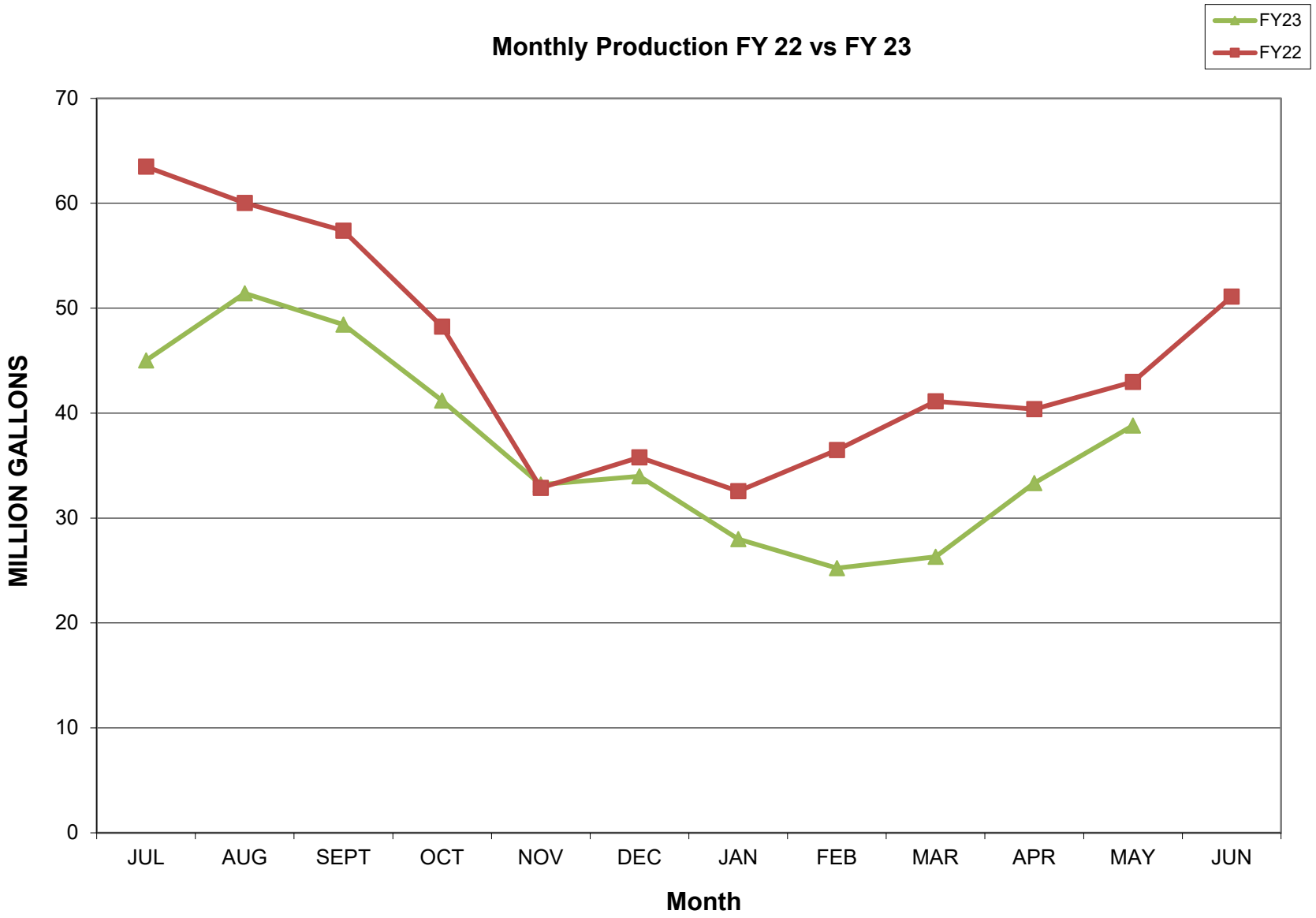
	CCWD Sources			SFPUC Sources				
	DENNISTON WELLS	DENNISTON RESERVOIR	PILARCITOS WELLS	PILARCITOS LAKE	CRYSTAL SPRINGS RESERVOIR	RAW WATER TOTAL	UNMETERED WATER	TREATED TOTAL
JUL	1.92	6.25	0.00	39.07	0.42	47.66	2.63	45.03
AUG	1.70	5.45	0.00	38.23	8.94	54.32	2.90	51.42
SEPT	1.65	5.86	0.00	15.86	27.69	51.06	2.62	48.44
OCT	0.57	3.62	0.00	37.14	3.13	44.46	3.25	41.21
NOV	0.54	13.55	7.66	11.91	2.57	36.23	3.04	33.19
DEC	0.37	10.59	15.88	7.30	2.26	36.40	2.42	33.98
JAN	0.00	0.00	24.62	4.53	0.00	29.15	1.15	28.00
FEB	0.00	0.00	24.29	2.56	0.00	26.85	1.62	25.23
MAR	0.00	0.00	26.21	2.19	0.00	28.40	2.09	26.31
APR	0.00	14.00	0.00	21.47	0.09	35.56	2.22	33.34
MAY	0.00	29.40	0.00	8.40	5.00	42.80	3.98	38.82
JUN								
TOTAL	6.75	88.72	98.66	188.66	50.10	432.89	27.92	404.97
% MONTHLY TOTAL	0.0%	39.4%	0.0%	60.4%	0.2%	100.0%	6.2%	93.8%
% ANNUAL TO DATE TOTAL	1.6%	20.5%	22.8%	43.6%	11.6%	100.0%	6.4%	93.6%

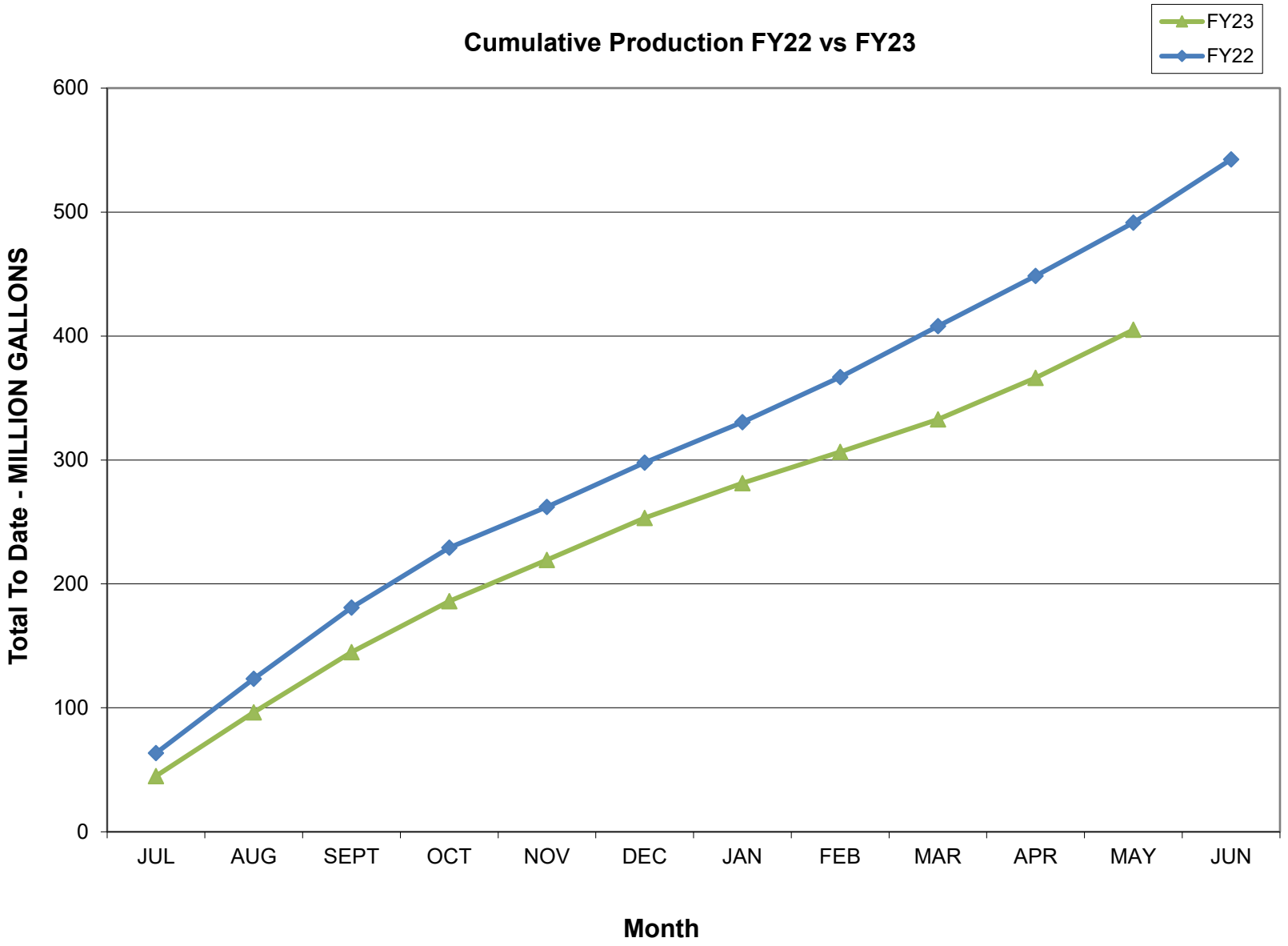
CCWD vs SFPUC- month	39.4%
CCWD vs SFPUC- annual	44.8%

12 Month Running Treated Total **456.09**

TOTAL CCWD PRODUCTION (MG) ALL SOURCES- FY 2022

	CCWD Sources			SFPUC Sources				
	DENNISTON WELLS	DENNISTON RESERVOIR	PILARCITOS WELLS	PILARCITOS LAKE	CRYSTAL SPRINGS RESERVOIR	RAW WATER TOTAL	UNMETERED WATER	TREATED TOTAL
JUL	0.00	0.00	0.00	0.00	65.93	65.93	2.44	63.49
AUG	0.00	0.00	0.00	0.00	61.90	61.90	1.86	60.04
SEPT	0.00	0.00	0.00	0.00	59.74	59.74	2.34	57.40
OCT	0.53	1.57	0.00	3.69	44.32	50.11	1.87	48.24
NOV	1.62	17.20	9.78	0.00	7.87	36.47	3.58	32.89
DEC	0.69	5.75	21.2	0.00	10.80	38.44	2.64	35.80
JAN	0.00	7.62	24.44	0.00	3.16	35.22	2.66	32.56
FEB	0.00	14.10	21.88	0.00	3.63	39.61	3.13	36.48
MAR	0.00	14.97	24.71	0.00	5.16	44.84	3.72	41.12
APR	2.33	23.27	0.00	9.22	9.25	44.07	3.68	40.39
MAY	2.15	19.30	0.00	22.75	2.61	46.81	3.84	42.97
JUN	1.91	12.20	0.00	35.05	5.04	54.20	3.08	51.12
TOTAL	9.23	115.98	102.01	70.71	279.41	577.34	34.84	542.50
% TOTAL	1.6%	20.1%	17.7%	12.2%	48.4%	100.0%	6.0%	94.0%


Monthly Production FY 22 vs FY 23
FY23
FY22
MILLION GALLONS
70
60
50
40
30
20
10
0
JUL
AUG
SEPT
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
Month


Cumulative Production FY22 vs FY23
FY23
FY22
Total To Date - MILLION GALLONS
600
500
400
300
200
100
0
JUL
AUG
SEPT
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
Month

Coastside County Water District Monthly Sales By Category (MG)
FY2023

	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	MG to Date
RESIDENTIAL	26.06	25.90	26.89	23.51	21.14	20.82	20.09	18.04	18.88	18.74	20.96		**241.02**
COMMERCIAL	2.49	2.80	2.85	2.60	2.41	2.27	2.15	2.12	2.07	2.45	2.73		**26.95**
RESTAURANT	1.67	1.64	1.78	1.56	1.43	1.32	1.12	1.21	1.17	1.24	1.44		**15.59**
HOTELS/MOTELS	2.39	2.55	2.53	2.17	1.92	1.67	1.53	1.58	1.82	1.83	2.11		**22.09**
SCHOOLS	0.59	0.49	0.51	0.36	0.46	0.18	0.11	0.21	0.20	0.15	0.22		**3.48**
MULTI DWELL	2.57	2.50	2.70	2.39	2.38	2.35	2.23	2.13	2.23	2.30	2.31		**26.09**
BEACHES/PARKS	0.74	0.64	0.61	0.37	0.31	0.26	0.18	0.23	0.28	0.29	0.53		**4.46**
AGRICULTURE	4.96	4.75	3.60	2.14	1.27	1.56	1.69	0.98	1.10	1.23	1.69		**24.96**
RECREATIONAL	0.22	0.24	0.23	0.19	0.19	0.17	0.15	0.15	0.14	0.14	0.13		**1.93**
MARINE	0.51	0.54	0.55	0.44	0.35	0.32	0.34	0.41	0.29	0.29	0.24		**4.28**
RES. IRRIGATION	1.22	1.23	1.22	0.89	0.43	0.22	0.14	0.06	0.06	0.17	0.81		**6.46**
DETECTOR CHECKS	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		**0.04**
NON-RES. IRRIGATION	3.53	5.48	4.59	1.00	0.22	0.09	0.11	0.08	0.10	0.09	0.16		**15.45**
RAW WATER	3.69	2.72	4.80	5.26	2.12	2.22	1.09	0.00	0.00	0.00	2.41		**24.31**
PORTABLE METERS	0.27	0.32	0.33	0.28	0.20	0.12	0.10	0.08	0.06	0.08	0.16		**2.01**
CONSTRUCTION	0.35	0.38	0.38	0.35	0.36	0.39	0.41	0.43	0.80	0.45	0.47		**4.77**
TOTAL - MG	**51.27**	**52.19**	**53.57**	**43.51**	**35.19**	**33.96**	**31.44**	**27.73**	**29.21**	**29.46**	**36.37**	**0.00**	**423.90**
Non Residential Usage	25.21	26.30	26.67	19.99	14.05	13.14	11.35	9.69	10.33	10.72	15.42	0.00	
Running 12 Month Total											**472.38**		
12 mo Residential											**265.63**		
12 mo Non Residential											**206.75**		

FY2022

	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	MG to Date
RESIDENTIAL	29.63	28.15	28.29	26.89	20.43	20.84	20.63	21.31	23.16	23.02	23.86	24.60	**290.81**
COMMERCIAL	3.00	2.96	2.91	2.96	2.27	2.30	2.01	2.22	2.36	2.37	2.44	2.40	**30.19**
RESTAURANT	1.52	1.36	1.33	1.38	1.30	1.19	1.15	1.24	1.38	1.52	1.48	1.51	**16.36**
HOTELS/MOTELS	2.73	2.90	2.39	2.46	2.04	1.81	1.75	1.65	2.05	2.24	2.17	2.26	**26.45**
SCHOOLS	0.70	0.63	0.81	0.54	0.26	0.35	0.25	0.38	0.44	0.33	0.47	0.53	**5.69**
MULTI DWELL	2.60	2.50	2.59	2.71	2.32	2.34	2.42	2.30	2.43	2.41	2.45	2.40	**29.49**
BEACHES/PARKS	0.68	0.79	0.64	0.69	0.21	0.19	0.18	0.42	0.46	0.35	0.47	0.52	**5.59**
AGRICULTURE	6.54	5.54	6.40	7.01	5.65	4.86	4.58	5.96	7.79	4.27	5.01	6.39	**70.00**
RECREATIONAL	0.23	0.21	0.21	0.22	0.18	0.17	0.15	0.16	0.18	0.19	0.19	0.20	**2.29**
MARINE	0.59	0.51	0.45	0.43	0.35	0.40	0.56	0.44	0.41	0.33	0.53	0.48	**5.48**
RES. IRRIGATION	1.40	1.51	1.50	1.15	0.27	0.30	0.08	0.64	1.09	0.81	0.89	1.09	**10.73**
DETECTOR CHECKS	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.00	0.00	**0.10**
NON-RES. IRRIGATION	4.05	5.39	5.06	0.50	0.23	0.32	0.19	0.31	0.35	0.26	0.38	4.88	**21.92**
RAW WATER	7.74	7.11	7.52	8.01	1.03	0.99	0.00	1.96	2.84	3.97	0.66	0.61	**42.43**
PORTABLE METERS	0.19	0.30	0.34	0.27	0.12	0.08	0.04	0.15	0.14	0.15	0.15	0.26	**2.19**
CONSTRUCTION	0.33	0.30	0.33	0.34	0.30	0.28	0.30	0.31	0.35	0.35	0.33	0.34	**3.85**
TOTAL - MG	**61.92**	**60.17**	**60.78**	**55.55**	**36.97**	**36.43**	**34.31**	**39.48**	**45.44**	**42.59**	**41.47**	**48.48**	**563.59**

MONTH **May-23**

Coastside County Water District Monthly Discharge Report

EMERGENCY MAIN AND SERVICE REPAIRS

	Date Reported Discovered	Date Repaired	Location	Pipe Class	Pipe Size & Type	Estimated Water Loss (MG)
1	5/1/2023	5/2/2023	450 Burining Tree Ct	Main	8" CI	0.010
2	5/4/2023	5/6/2023	464 Sonora Ave	Main	6" CI	0.012
3	5/15/2023	5/17/2023	350 El Granada Blvd	Main	6"	0.005
4						
5						
6						
7						
8						
					Totals	**0.027**

OTHER DISCHARGES

Total Volumes (MG)	
Flushing Program	0.002
Reservoir Cleaning	0.000
Automatic Blowoffs	0.120
Dewatering Operations	0.066
Other (includes flow testing)	0.002

DISCHARGES GRAND TOTAL (MG)

0.190

MONTH **May-23**

PLANNED PLANT OR TANK DISCHARGE AND NEW WATER LINE FLUSHING REPORT

	Date	Project/Location	Pipe Size & Type	Estimated Water Flushed (Gallons)	Chlorine Residual after dechlor	pH	Flow Rate (gal/min)	Duration of Discharge (minutes)
1	5/19/2023 - 5/23/23	El Granda Tank #1	6" WS Drain	0.060	0.00		11	5520
2	5/23/2023	Nunes Meter	20" DI	0.006	0.00		200	30
3								
3								
4								

DEWATERING OPERATIONS GREATER THAN 350,000 GALLONS (requires prenotification to CWRCB)

	Date	Location	Volume	pH			Chlorine Residual after dechlor			Duration (min)
				5 min	20 min	end	5 min	20 min	end	
1										
2										

ANNUAL REPRESENTATIVE MONITORING

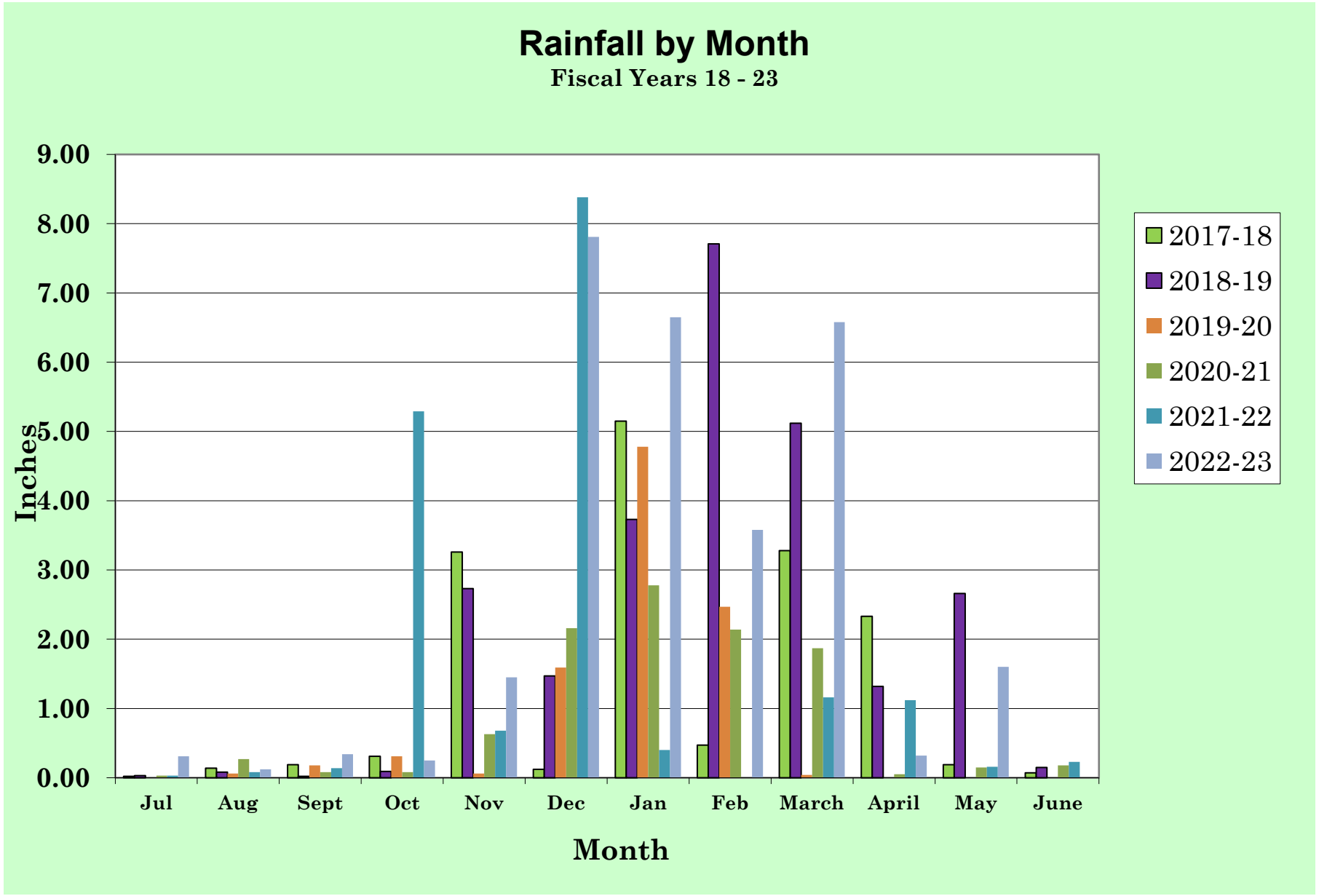
	Date	Location	Volume (gal)	pH	**Chlorine Residual after dechlor (ppm)**
1					

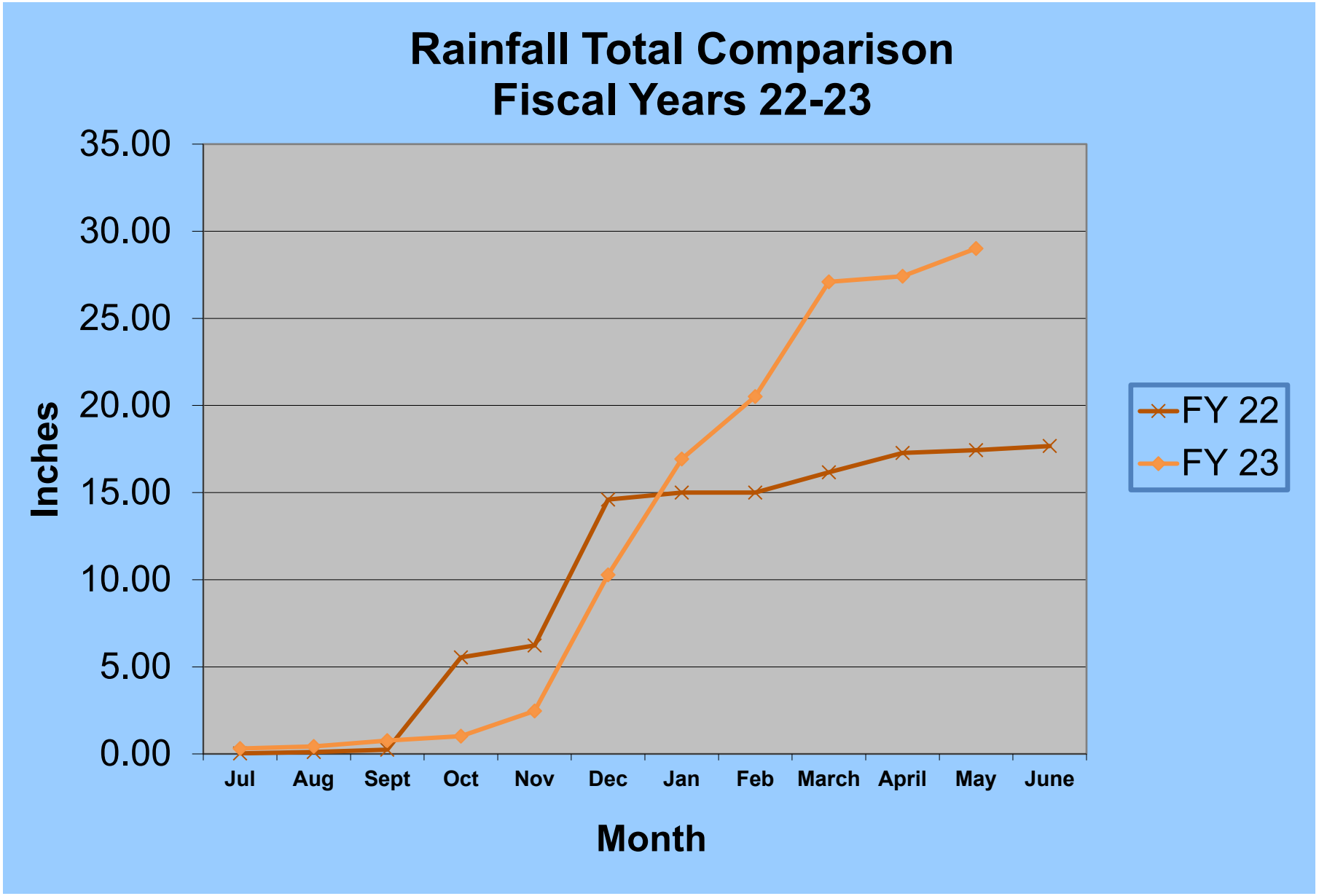
766 Main Street
July 2022 - June 2023

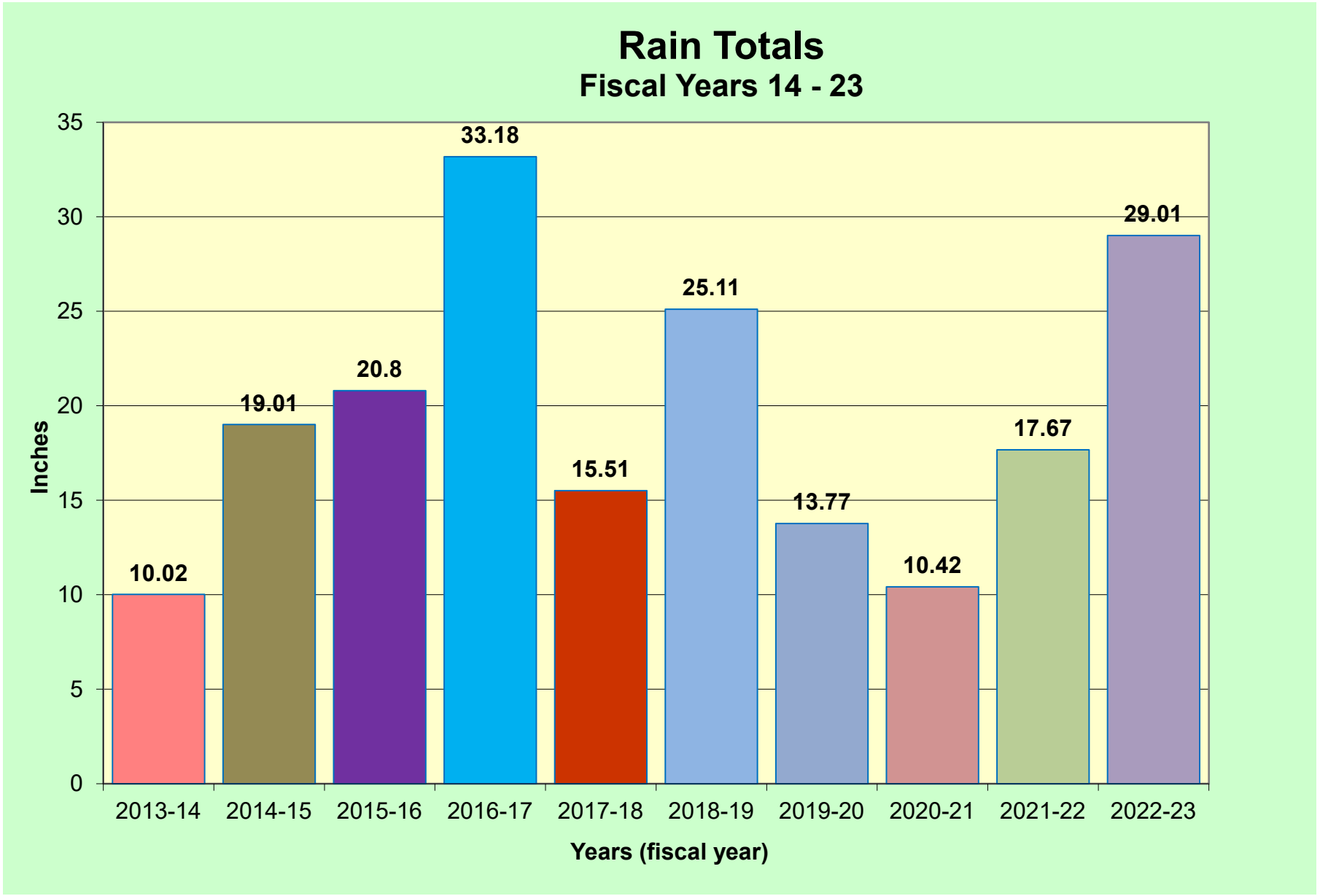
Rainfall in Inches

	2022				2023							
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June
1	0.02	0.01	0	0.01	0.34	0.61	0.13	0	0.01	0.01	0.14	
2	0.05	0	0	0	0.02	0	0.53	0	0	0	0.4	
3	0.02	0	0	0	0	0.63	0.03	0.67	0	0	0.73	
4	0	0	0	0	0	0.24	0.48	0.47	0.11	0	0.01	
5	0.02	0	0	0	0.2	0.08	0.77	0.27	0.22	0	0.01	
6	0.04	0	0	0.01	0.06	0.1	0.41	0	0.25	0	0.16	
7	0.01	0	0	0.01	0.07	0	0.17	0	0.01	0.15	0	
8	0	0	0	0.01	0.72	0.03	0.26	0	0.12	0	0.01	
9	0	0	0	0.02	0.04	0	0.19	0	0.66	0	0.02	
10	0.01	0	0	0	0	0.77	0.24	0.02	0.24	0.02	0	
11	0	0	0	0.01	0	0.46	0.22	0.14	0.03	0.06	0	
12	0.01	0	0	0	0	0	0	0	1.21	0	0	
13	0	0	0	0	0	0	0.97	0	0.07	0	0	
14	0	0	0	0.01	0	0	1.02	0	0.47	0	0	
15	0	0	0	0	0	0	0.76	0	0	0	0	
16	0.01	0	0	0	0	0	0.41	0	0	0	0	
17	0	0.01	0	0	0	0	0	0	0	0.05	0	
18	0	0	0.12	0	0	0	0.06	0	0.07	0	0	
19	0	0.01	0	0	0	0	0	0	0.54	0	0	
20	0	0	0	0	0	0	0	0	0	0	0.06	
21	0	0	0.2	0	0	0	0	0	1.64	0	0.03	
22	0	0	0	0.16	0	0	0	0	0.31	0	0	
23	0	0.02	0	0	0	0	0	0.39	0.12	0.01	0	
24	0.01	0.02	0	0	0	0	0	0.35	0	0	0	
25	0.01	0.02	0	0	0	0	0	0	0	0	0	
26	0	0.01	0	0	0	0.24	0	0.35	0	0	0.01	
27	0.01	0.02	0	0	0	1.15	0	0.45	0	0	0.02	
28	0.02	0	0	0	0	0.03	0	0.47	0.27	0.01	0	
29	0.03	0	0	0	0	0.38	0		0.22	0.01	0	
30	0.03	0	0	0.01	0	0.26	0		0.01	0	0	
31	0.01	0		0		2.83	0		0		0	
Mon.Tota	0.31	0.12	0.34	0.25	1.45	7.81	6.65	3.58	6.58	0.32	1.60	
Year Tota	0.31	0.43	0.77	1.02	2.47	10.28	16.93	20.51	27.09	27.41	29.01	

Coastside County Water District




Rainfall Total Comparison
Fiscal Years 22-23
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Inches
Jul
Aug
Sept
Oct
Nov
Dec
Jan
Feb
March
April
May
June
Month
FY 22
FY 23


Rain Totals
Fiscal Years 14 - 23
Inches
35
30
25
20
15
10
5
0
10.02
19.01
20.8
33.18
15.51
25.11
13.77
10.42
17.67
29.01
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
Years (fiscal year)

San Francisco Public Utilities Commission
Hydrological Conditions Report
April 2023

J. Chester, C. Graham, N. Waelty. Prepared May 10, 2023

Hetch Hetchy Water and Power (HHWP), a Division of the San Francisco Public Utilities Commission (SFPUC), staff participated with Mayor London Breed in a centinniel celebration of the completion of the O'Shaughnessy Dam in April of 1923. The initial construction lifted the dam to a height of 226.5 feet and was later raised to its current height of 312 ft in 1938.

System Storage

Current Tuolumne System and Local Bay Area storage conditions are summarized in Table 1.

Table 1. Current System Storage as of May 1, 2023

	Current Storage		Maximum Storage		Available Capacity		Percentage of Maximum Storage
	acre-feet	millions of gallons	acre-feet	millions of gallons	acre-feet	millions of gallons	
Tuolumne System							
Hetch Hetchy Reservoir[1]	236,027		360,360		124,333		65%
Cherry Reservoir[2]	174,808		273,345		98,537		64%
Lake Eleanor[3]	24,658		27,100		2,442		91%
Water Bank	570,000		570,000		0		100%
Tuolumne Storage	1,005,493		1,230,805		225,312		82%
Local Bay Area Storage							
Calaveras Reservoir	94,623	30,833	96,670	31,500	2,047	667	98%
San Antonio Reservoir	52,506	17,109	52,506	17,109	0	0	100%
Crystal Springs Reservoir	53,578	17,517	68,743	22,400	14,985	4,883	78%
San Andreas Reservoir	16,299	5,288	18,898	6,158	2,669	870	86%
Pilarcitos Reservoir	2,580	841	3,118	1,016	538	175	83%
Total Local Storage	219,586	71,588	239,935	78,183	20,239	6,595	92%
Total System	1,255,079		1,470,740		245,551		83%

[1] Maximum Hetch Hetchy Reservoir storage with drum gates activated.
[2] Maximum Cherry Reservoir storage with flash-boards installed.
[3] Maximum Lake Eleanor storage with flash-boards installed.

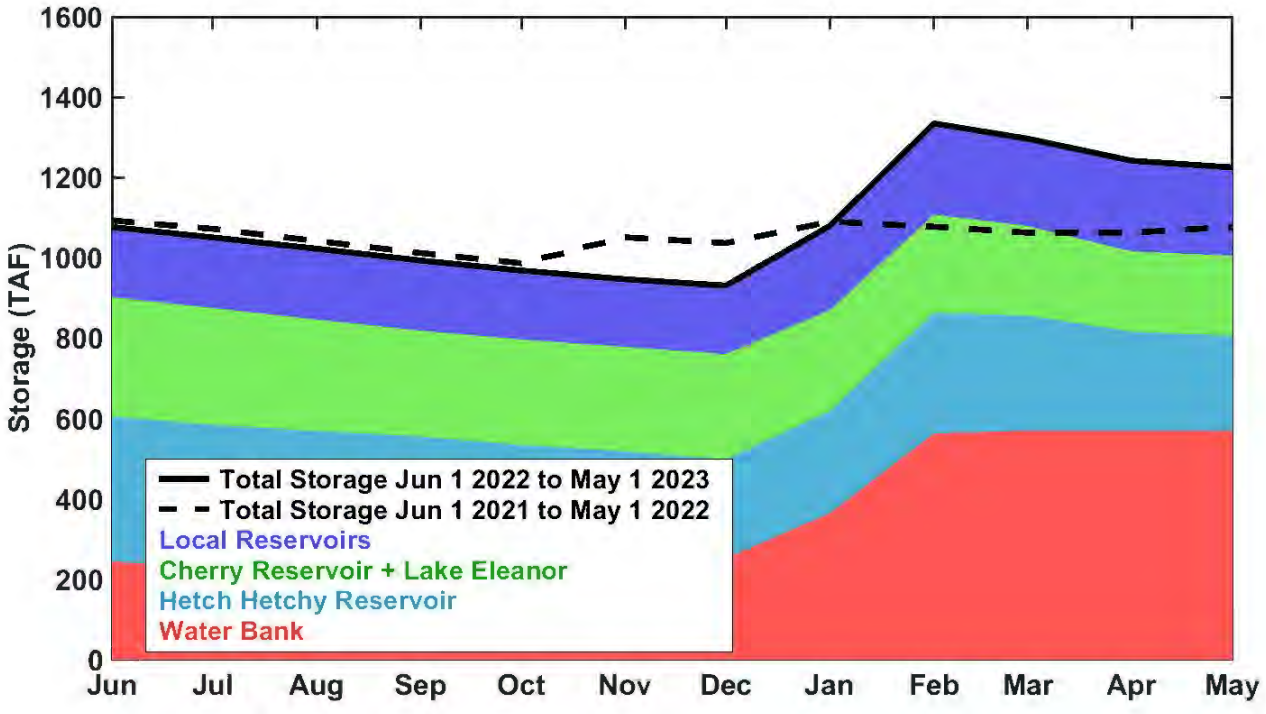


Figure 1: Local and Upcountry Reservoir storage. Color bands show contributions to total system storage. Solid black line shows total system storage for the past 12 months. Dashed black line shows total system storage the previous 12 months.

Hetch Hetchy System Precipitation Index

Current Month: The April 2023 six-station precipitation index was 0.17 inches, or 7% of median for the month.

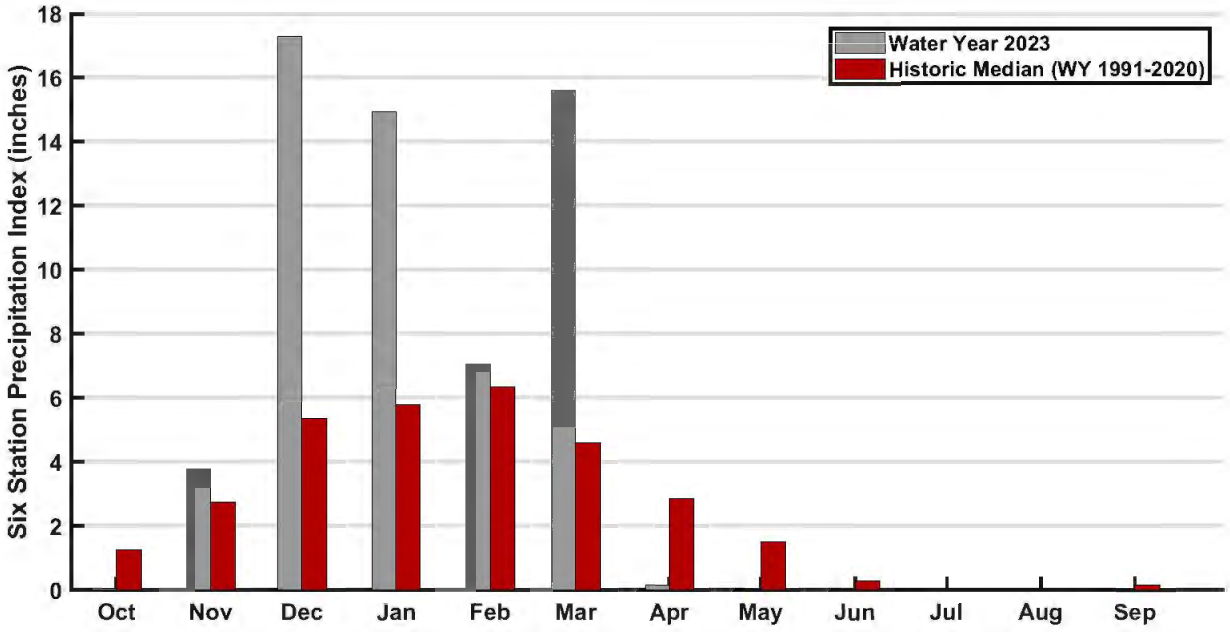


Figure 2: Monthly distribution of the six-station precipitation index relative to the monthly precipitation medians. The precipitation index is computed as the average of six Sierra precipitation stations and is an indicator of the overall basin wetness.

Cumulative Precipitation to Date: As of May 1, the six-station precipitation index for Water Year (WY) 2023 was 59.21 inches, which is 204% of the median total to date. The Hetch Hetchy Weather Station received 0.21 inches of precipitation in April resulting in a total of 58.46 inches for WY 2023, or 187% of median to date. The cumulative WY 2023 Hetch Hetchy precipitation is shown in Figure 3 in red.

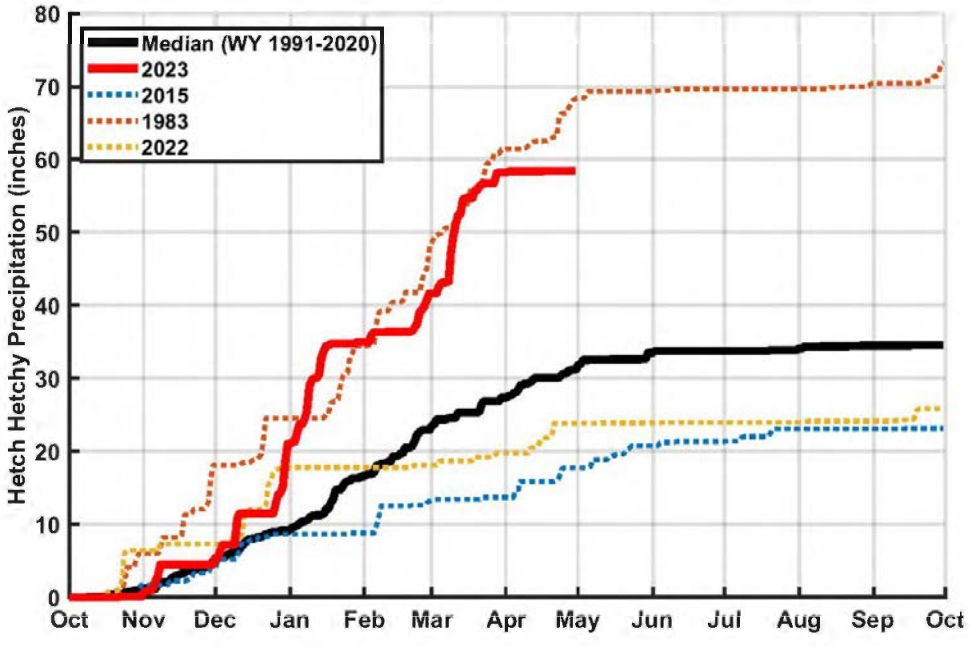


Figure 3: Water Year 2023 cumulative precipitation measured at Hetch Hetchy Weather Station. Median cumulative precipitation measured at Hetch Hetchy Weather Station and example wet and dry years are included with Water Year 2023 for comparison purposes.

Tuolumne Basin Unimpaired Inflow

Unimpaired inflow to SFPUC reservoirs and the Tuolumne River at La Grange for April 2023 and Water Year 2023 is summarized below in Table 2.

Table 2. Calculated reservoir inflows and Water Available to City

* All flows are in acre-feet	April 2023				October 1, 2022 through April 30, 2023			
	Observed Flow	Median[1]	Mean[1]	Percent of Mean	Observed Flow	Median[1]	Mean[1]	Percent of Mean
Inflow to Hetch Hetchy Reservoir	114,325	99,383	102,046	112%	318,657	232,271	247,718	129%
Inflow to Cherry Reservoir and Lake Eleanor	100,560	85,278	84,860	119%	359,903	238,994	257,647	140%
Tuolumne River at La Grange	453,013	277,191	298,503	152%	1,979,195	803,288	983,352	201%
Water Available to City	256,889	92,777	116,214	221%	1,256,287	236,654	402,185	312%

[1]Hydrologic Record: 1991-2020

Hetch Hetchy System Operations

Water deliveries via the San Joaquin Pipeline (SJPL) resumed on April 12, at a rate of 130 MGD. Deliveries remained at 130 MGD for the remainder of April.

Hetch Hetchy Reservoir power draft and stream releases during the month totaled 124,711 acre-feet. Hetch Hetchy Reservoir minimum instream release requirements for April were 75 cfs. As of May 1, WY 2023 total precipitation has kept Hetch Hetchy Reservoir instream releases at a type A (median to wet) year. Minimum stream releases increase to 100 cfs for May.

Cherry Reservoir power draft and stream releases totaled 72,758 acre-feet for the month of April. The required minimum instream release from Cherry Reservoir for March was 5 cfs and will remain at 5 cfs until June 30, 2023. Lake Eleanor required release for March was 10 cfs until April 14 and increased to 20 cfs for the remainder of April. Lake Eleanor fish releases will remain at 20 cfs until mid-September.

Regional System Treatment Plant Production

The Harry Tracy Water Treatment Plant average production rate for April was 21 MGD. The Sunol Valley Water Treatment Plant production rate for the month was 71 MGD.

Regional System Water Delivery

The average April delivery rate was 169 MGD which is an increase of 15% over the March delivery rate of 147 MGD.

Local Precipitation
The rainfall summary for April 2023 is presented in Table 3.

Table 3
Precipitation Totals at Three Local Area Reservoirs

Weather Station Location	April 2023		October 1, 2022 through April 30, 2023	
	Total (inches)	Percent of Mean for the Month	Total (inches)	Percent of Mean for the Year-To-Date
Pilarcitos Reservoir	0.88	30%	57.33	175%
Lower Crystal Springs Reservoir	0.36	21%	43.07	200%
Calaveras Reservoir	0.26	18%	38.23	218%

*Mean Period = WY 1991-2020

Snowpack, Water Supply and Planned Water Supply Management
Thirty one atmospheric rivers from mid-December to the end of March have established a remarkable snow season in the Sierra Mountains. The snowpack held an estimated 1,400,000 acre-ft of snow water equivalent (SWE) above Hetch Hetchy, 405,000 acre-feet of SWE above Cherry Reservoir, and 209,000 acre-ft of SWE above Lake Eleanor when measured on April 27th. The month of April, which is the first month of the April through July (A-J) runoff season, measured 114,325 acre-feet of inflow. SFPUC anticipates that runoff will likely peak in late May with sustained inflows potentially through to August.

Cumulative Water Available to the City (WAC) for WY 2023 was 1,256,287 acre-feet on May1 (Figure 5). The inflows into upcountry reservoirs and intervening flows to Don Pedro Reservoir were sufficient to fill Water Bank. Forecasted high inflows above and below SFPUC storage reservoirs (Figure 6) will maintain a full Water Bank throughout the runoff period, and allow for filling of Cherry Reservoir, Lake Eleanor and Hetch Hetchy Reservoir.

Hetch Hetchy Reservoir is drafting for storage management and Kirkwood Powerhouse Draft. Cherry Reservoir and Lake Eleanor are drafting via storage management valve releases and Holm Powerhouse Draft. Scheduled Holm Powerhouse generation is reducing Cherry Reservoir storage to accommodate forecasted runoff through the spring.

Discretionary releases from Hetch Hetchy Reservoir are being planned for spring months, as forecasted inflows will exceed the volume needed to fill. SFPUC staff is working with Yosemite National Park staff to plan these releases in the most environmentally beneficial manner, as part of the Upper Tuolumne River Ecosystem Program (UTREP).

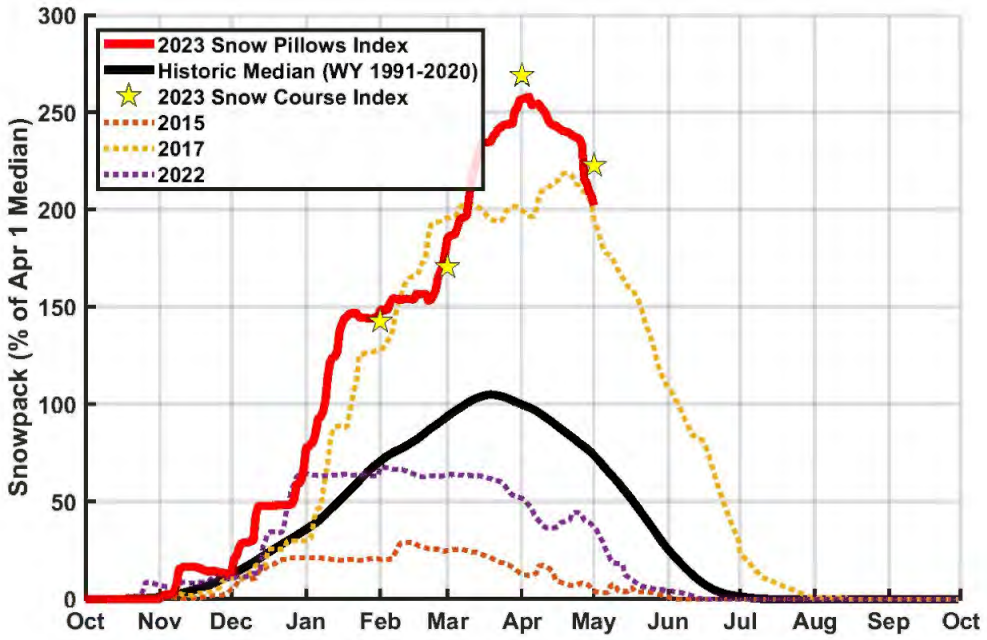


Figure 4: Tuolumne River Basin Snow Pillow Index and Snow Course Index, based on real time snow pillow and manual snow course Snow Water Equivalent (SWE) measurements in the Tuolumne Basin. Example high and low snowpack years are included with Water Year 2023 for comparison purposes.

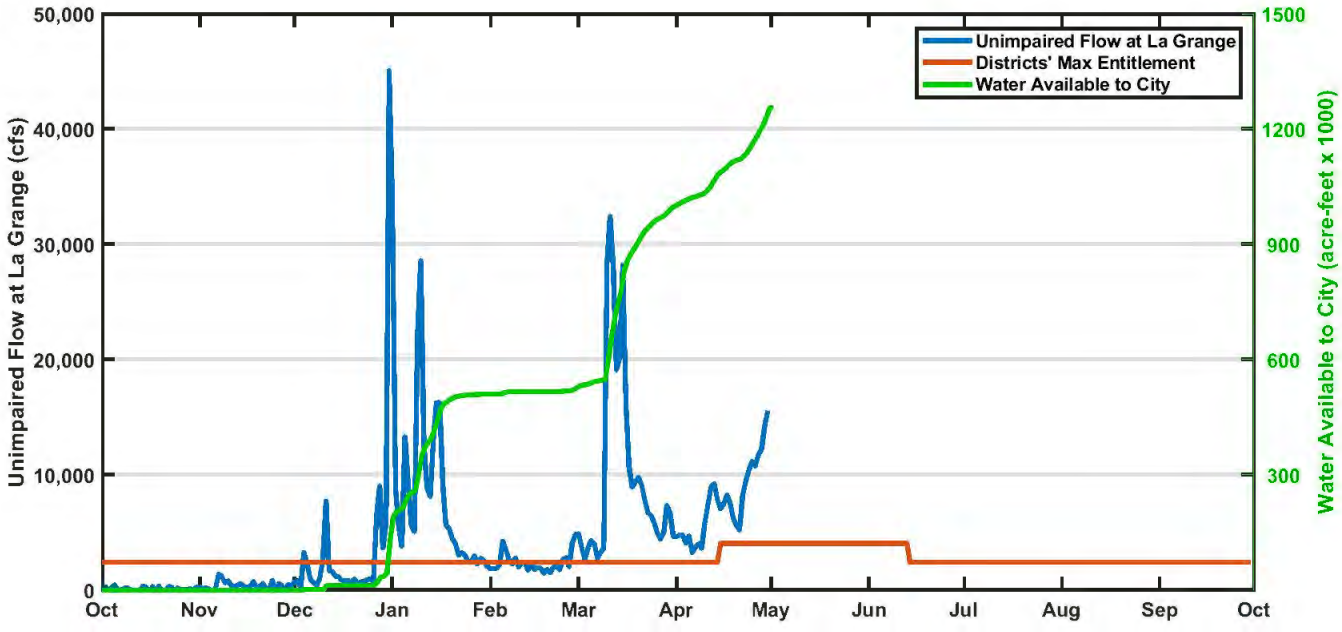


Figure 5: Calculated unimpaired flow at La Grange and the allocation of flows between the Districts and the City.

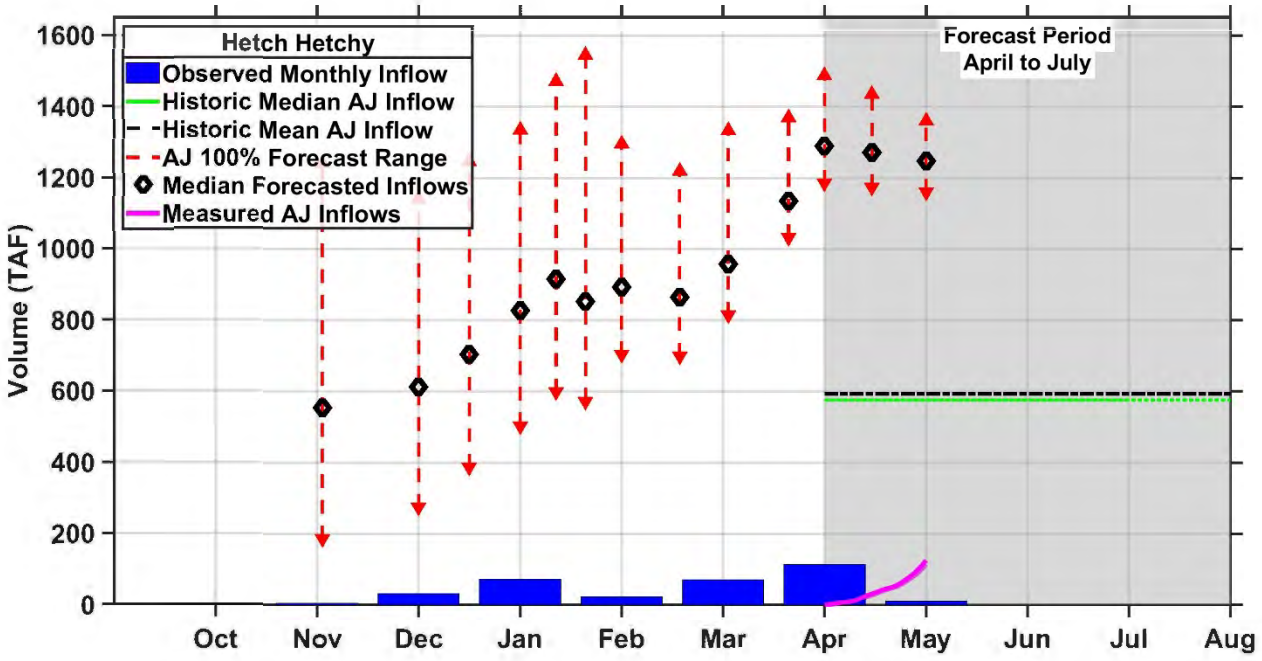


Figure 6: Water Supply Forecast Model April through July runoff projection on the Tuolumne River at Hetch Hetchy Reservoir. This model is driven by precipitation from October to February, and by snow survey data from February through May. The forecast range decreases as time passes due to reduced potential future precipitation.

San Francisco Public Utilities Commission
Hydrological Conditions Report
May 2023

J. Chester, C. Graham, N. Waelty, H. Forrester. Prepared June 7, 2023

As snowmelt runoff flows over Tueeulala and Wapama Falls into Hetch Hetchy Reservoir (left), valve releases from O'Shaughnessy Dam (center) innundate downstream wetlands in Poopenaut Valley (right), one of the primary goals of the Upper Tuolumne Ecosystem Program (UTREP).

System Storage

Current Tuolumne System and Local Bay Area storage conditions are summarized in Table 1.

Table 1. Current System Storage as of June 1, 2023

	Current Storage		Maximum Storage		Available Capacity		Percentage of Maximum Storage
	acre-feet	millions of gallons	acre-feet	millions of gallons	acre-feet	millions of gallons	
Tuolumne System							
Hetch Hetchy Reservoir[1]	300,320		360,360		60,040		83%
Cherry Reservoir[2]	204,677		273,345		68,668		75%
Lake Eleanor[3]	24,937		27,100		2,163		92%
Water Bank	570,000		570,000		0		100%
Tuolumne Storage	1,099,934		1,230,805		130,871		89%
Local Bay Area Storage							
Calaveras Reservoir	95,044	30,970	96,670	31,500	1,626	530	98%
San Antonio Reservoir	52,506	17,109	52,506	17,109	0	0	100%
Crystal Springs Reservoir	54,807	17,859	68,743	22,400	13,936	4,541	80%
San Andreas Reservoir	14,165	4,616	18,898	6,158	4,733	1,542	75%
Pilarcitos Reservoir	2,611	851	3,118	1,016	507	165	84%
Total Local Storage	219,133	71,404	239,935	78,183	20,803	6,779	91%
Total System	1,319,067		1,470,740		151,673		90%

[1] Maximum Hetch Hetchy Reservoir storage with drum gates activated.
[2] Maximum Cherry Reservoir storage with flash-boards installed.
[3] Maximum Lake Eleanor storage with flash-boards installed.

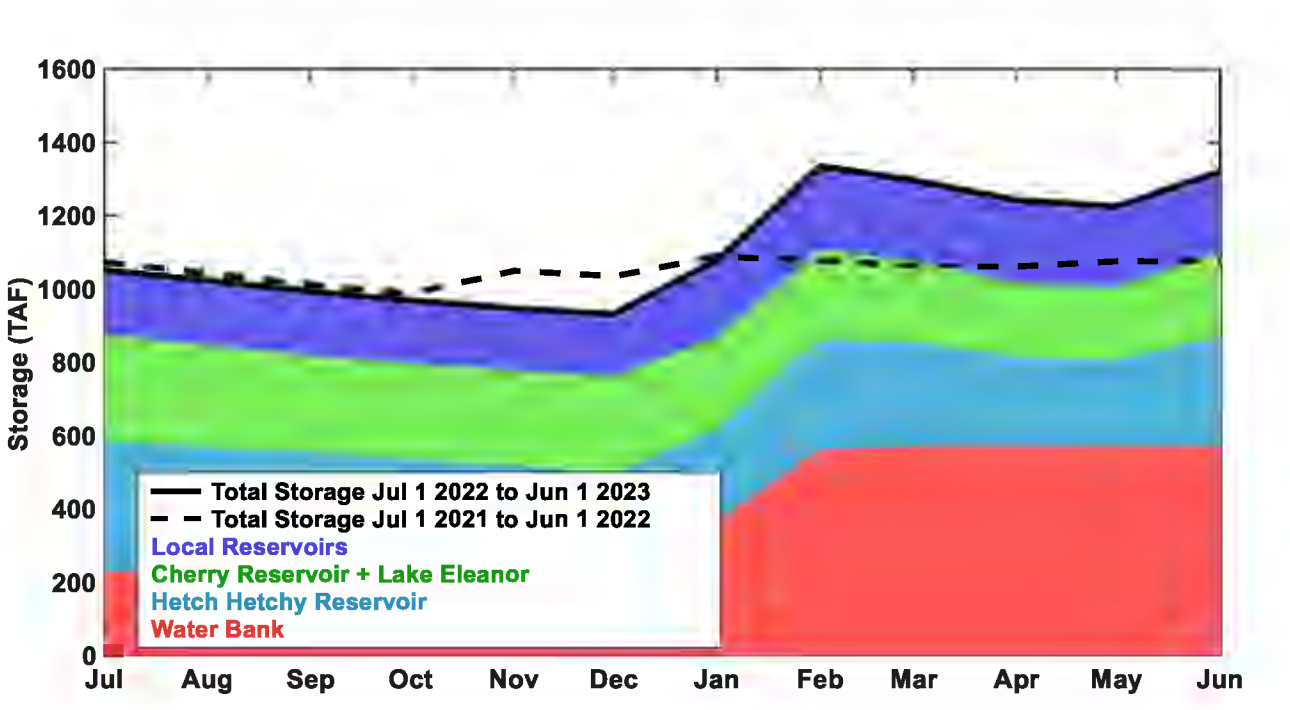


Figure 1: Local and Upcountry Reservoir storage. Color bands show contributions to total system storage. Solid black line shows total system storage for the past 12 months. Dashed black line shows total system storage the previous 12 months.

Hetch Hetchy System Precipitation Index

Current Month: The May 2023 six-station precipitation index was 1.23 inches, or 81% of median for the month.

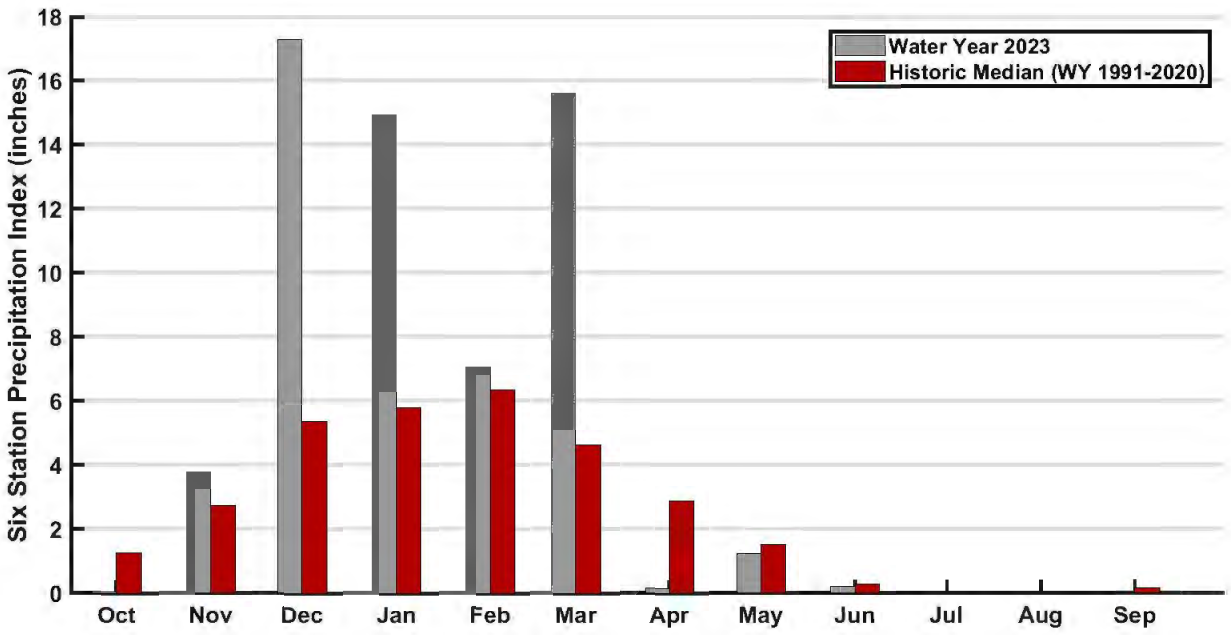


Figure 2: Monthly distribution of the six-station precipitation index relative to the monthly precipitation medians. The precipitation index is computed as the average of six Sierra precipitation stations and is an indicator of the overall basin wetness.

Cumulative Precipitation to Date: As of June 1, the six-station precipitation index for Water Year (WY) 2023 was 60.06 inches, which is 197% of the median total to date. The Hetch Hetchy Weather Station received 2.18 inches of precipitation in May resulting in a total of 60.63 inches for WY 2023, or 181% of median to date. The cumulative WY 2023 Hetch Hetchy Weather Station precipitation is shown in Figure 3 in red.

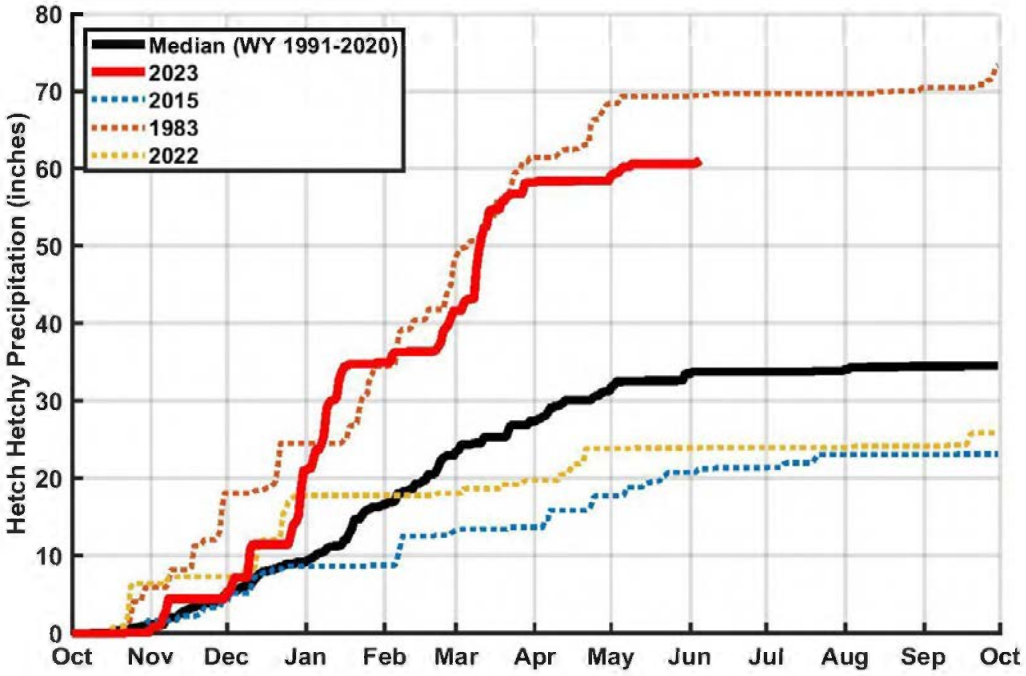


Figure 3: Water Year 2023 cumulative precipitation measured at Hetch Hetchy Weather Station. Median cumulative precipitation measured at Hetch Hetchy Weather Station and example wet and dry years are included with Water Year 2023 for comparison purposes.

Tuolumne Basin Unimpaired Inflow

Unimpaired inflow to SFPUC reservoirs and the Tuolumne River at La Grange for May 2023 and Water Year 2023 is summarized below in Table 2.

Table 2. Calculated reservoir inflows and Water Available to City

* All flows are in acre-feet	May 2023				October 1, 2022 through May 31, 2023			
	Observed Flow	Median[1]	Mean[1]	Percent of Mean	Observed Flow	Median[1]	Mean[1]	Percent of Mean
Inflow to Hetch Hetchy Reservoir	376,659	214,740	218,132	173%	695,316	462,650	465,850	149%
Inflow to Cherry Reservoir and Lake Eleanor	192,278	115,014	125,164	154%	552,181	378,983	382,811	144%
Tuolumne River at La Grange	837,648	400,953	444,403	188%	2,816,842	1,267,528	1,427,755	197%
Water Available to City	587,639	156,297	208,902	281%	1,843,926	459,193	611,087	302%

[1]Hydrologic Record: 1991-2020

Hetch Hetchy System Operations

Water deliveries via the San Joaquin Pipeline (SJPL) increased on May 1 from a rate of 130 MGD to 159 MGD, then increased to 208 MGD on May 5. Deliveries remained at 208 MGD for the remainder of May.

Hetch Hetchy Reservoir power draft and stream releases during the month totaled 316,798 acre-feet. Hetch Hetchy Reservoir minimum instream release requirements for May were 100 cfs. As of June 1, WY 2023 total precipitation has kept Hetch Hetchy Reservoir instream releases at a type A (median to wet) year. Minimum stream releases increase to 125 cfs for June.

Cherry Reservoir power draft and stream releases totaled 103,668 acre-feet for the month of May. The required minimum instream release from Cherry Reservoir for May was 5 cfs and will remain at 5 cfs until June 30, 2023. Lake Eleanor required minimum instream release for May was 20 cfs and will remain at 20 cfs until mid-September.

Regional System Treatment Plant Production

The Harry Tracy Water Treatment Plant average production rate for May was 31 MGD. The Sunol Valley Water Treatment Plant production rate for the month was <2 MGD.

Regional System Water Delivery

The average May delivery rate was 191 MGD which is an increase of 13% over the April delivery rate of 169 MGD.

Local Precipitation

The rainfall summary for May 2023 is presented in Table 3.

Table 3
Precipitation Totals at Three Local Area Reservoirs

Weather Station Location	May 2023		October 1, 2022 through May 31, 2023	
	Total (inches)	Percent of Mean for the Month	Total (inches)	Percent of Mean for the Year-To-Date
Pilarcitos Reservoir	2.51	380%	59.80	179%
Lower Crystal Springs Reservoir	1.37	304%	44.44	202%
Calaveras Reservoir	0.95	194%	38.77	215%

*Mean Period = WY 1991-2020

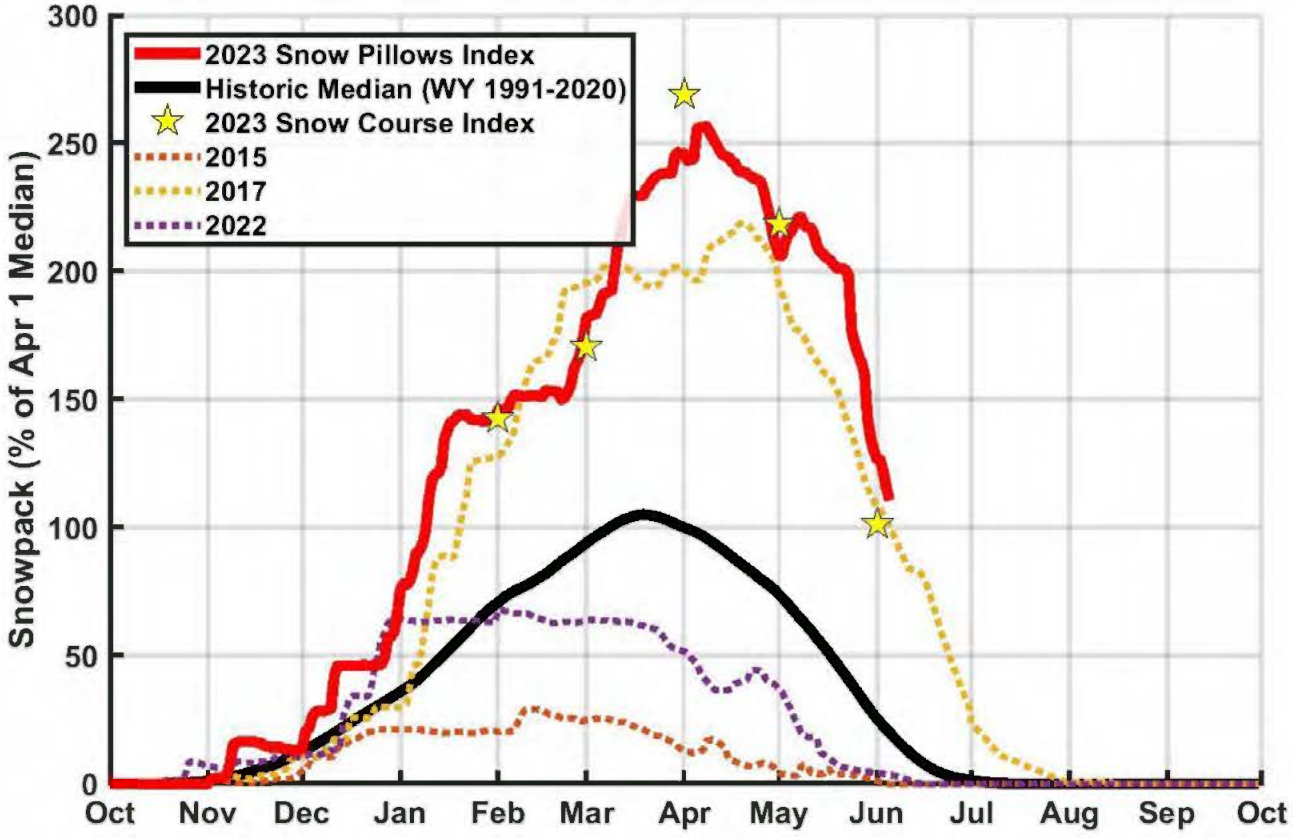
Snowpack, Water Supply and Planned Water Supply Management

Thirty-one atmospheric rivers from mid-December to the end of March established a near-historic snowpack in the Sierra Nevada. Based on an Airborne Snow Observatory Inc. flight over the Tuolumne River Basin June 1, the snowpack held an estimated 860,000 acre-ft of snow water equivalent (SWE) above Hetch Hetchy, 230,000 acre-feet of SWE above Cherry Reservoir, and 93,000 acre-ft of SWE above Lake Eleanor. April through May, half of the April through July (A-J) runoff season, measured 490,984 acre-feet of inflow to Hetch Hetchy. SFPUC anticipates that runoff peaked in late May or will likely peak in mid-June with sustained inflows persisting into August.

Cumulative Water Available to the City (WAC) for WY 2023 was 1,843,926 acre-feet on June 1 (Figure 5). The inflows into upcountry reservoirs and intervening flows to Don Pedro Reservoir continued to maintain a full Water Bank. Forecasted high inflows above and below SFPUC storage reservoirs (Figure 6) will maintain a full Water Bank throughout the runoff period, and allow for filling of Cherry Reservoir, Lake Eleanor and Hetch Hetchy Reservoir.

Hetch Hetchy Reservoir and Cherry Reservoir are drafting via maximum available generation and discretionary valve releases to manage inflows and reservoir storage. Lake Eleanor is full and spilling and drafting via maximum valve releases.

Discretionary releases from Hetch Hetchy Reservoir are expected to continue through June, as forecasted inflows will exceed the volume needed to fill. SFPUC staff is working with Yosemite National Park staff to perform these releases in the most environmentally beneficial manner, as part of the Upper Tuolumne River Ecosystem Program (UTREP).



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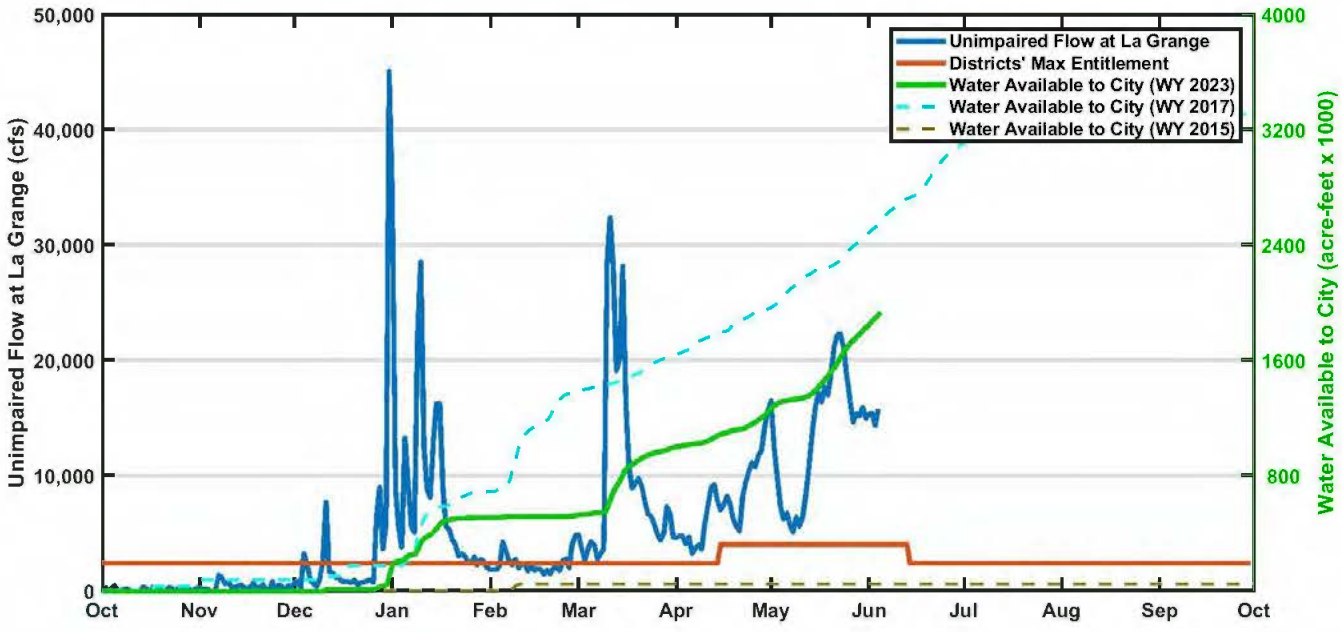

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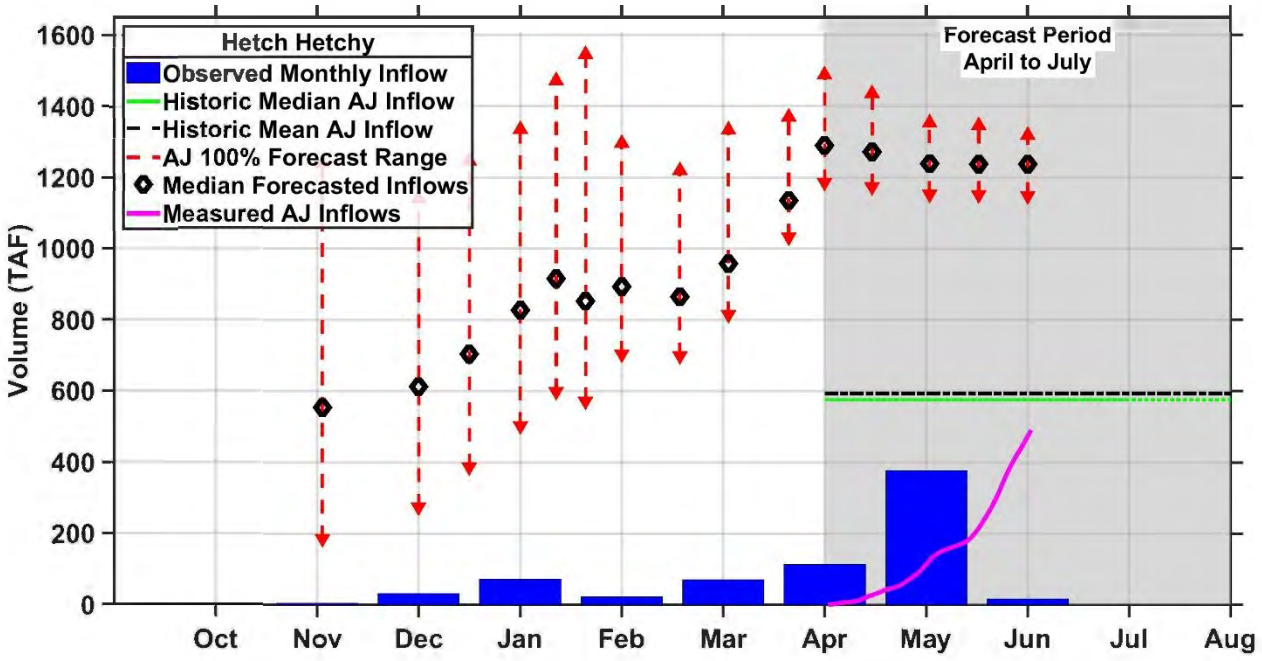

Figure 6: Water Supply Forecast Model April through July runoff projection on the Tuolumne River at Hetch Hetchy Reservoir. This model is driven by precipitation from October to February, and by snow survey data from February through May. The forecast range decreases as time passes due to reduced potential future precipitation.

WATER SERVICE CONNECTION TRANSFER REPORT
TRANSFERS APPROVED FOR THE MONTH OF MAY 2023

DONATING APN	PROPERTY OWNER(S)	RECIPIENT APN	PROPERTY OWNER(S)	# OF CONNECTIONS	DATE
047-252-280	Miramar Beach LLC/Paul McGregor	048-013-220	Paul McGregor	1 - 5/8"	May 30, 2023
047-252-290	Miramar Beach LLC/Paul McGregor	048-065-060	Paul McGregor	1 - 5/8"	May 30, 2023
047-252-280	Miramar Beach LLC/Paul McGregor	047-252-290	Miramar Beach LLC/Paul McGregor	One half (.5) -- 5/8"	May 30, 2023

STAFF REPORT

To:	**Coastside County Water District Board of Directors**
From:	**Mary Rogren, General Manager**
Agenda:	**June 13, 2023**
Report Date:	**June 9, 2023**
Agenda Title:	Waive the Procedural Requirements for Sealed Competitive Bids and Authorize the General Manager to Procure a New Ford F-250 Diesel 4x4 Crew Cab Truck

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Staff Recommendation/Motion:
Waive the procedural requirements for sealed competitive bids and authorize the General Manager to procure a new F-250 diesel 4x4 crew cab truck for a not to exceed amount of $80,000.

Background:
The District budgets annually for vehicle replacements as part of its capital improvement program. In past years, the District has participated in the Ford Government fleet concession pricing program, however this program has been suspended. Given the continuing Ford factory production and supply chain issues and resulting long lead times, staff is recommending that the District purchase a new truck from a dealership's stock by comparing prices of available trucks before purchase.

Towne Ford and Serramonte Ford both currently have 2023 F-250 diesel crew cab 4x4s in stock listed at an MSRP of $63,685. With tax and licensing the total amount would be $70,109 out the door. Granted these vehicles may not still be available mid-June, staff is requesting a not-to-exceed budget of $80,000 to shop competitively at several Ford dealerships locally and/or statewide if necessary.

Staff is interested in procuring a F-250 diesel 4x4 crew cab for emergency deployment of the portable emergency pump and overall emergency preparedness. The majority of the District's fleet vehicles are currently F-150s and have limited towing capacity. This proposed vehicle has similar features to the standard specification the District uses for typical Ford Fleet orders. This truck will be the only crew cab vehicle in the fleet and staff feels it will enhance emergency response when we need to load more than two staff into a truck and will be convenient when touring facilities with consultants/visitors. Given the intended emergency use of the F-250 vehicle (and the District's recent addition of onsite emergency fuel storage) the staff recommends the purchase of an F-250 diesel 4x4 crew cab in the 2023 calendar year.

Determination of Waiving Competitive Bidding Requirements

Staff is requesting to purchase a vehicle for a not to exceed amount of $80,000 from a dealership and to waive the formal competitive bidding requirements of Resolution 2016-09 in order to procure an F-250 diesel 4x4 crew cab truck in 2023 and to avoid long lead times due to ongoing Ford factory production issues.

Fiscal Impact:

Not to exceed $80,000.

STAFF REPORT

To: **Coastside County Water District Board of Directors**

From: **Mary Rogren, General Manager**

Agenda: **June 13, 2023**

Report Date: **June 9, 2023**

Agenda Title: Approval of Professional Services Agreement with EKI Environment & Water, Inc. for Engineering Services for the Highway 92 Potable Water Pipeline Phase I Project

Recommendation/Motion:

Authorize the General Manager to retain the professional services of EKI Environment & Water, Inc. ("EKI") for engineering services for the Highway 92 Potable Water Pipeline Phase I Project for a not-to-exceed budget of $127,900.

Background:
Included in the District's Capital Improvement Program is replacement of the 12-inch welded steel potable water main that runs parallel to Highway 92. The plan is to replace the pipeline in multiple phases, with a timeline for completion by Fiscal Year 2027/2028.

Emergency conditions requiring expedited replacement exist along segments of the potable water pipeline damaged during the late December 2022/early January 2023 winter storms. At the March 14, 2023 Board of Directors meeting, the Board approved a professional services agreement with EKI for engineering services for the Highway 92 potable water pipeline emergency restoration project for the pipeline damaged east of Sun Studios.

In addition to restoring the section of pipeline impacted by the emergency, Staff recommends proceeding with the replacement of the section of potable pipeline immediately west of the emergency section as a "Phase I" project. This Phase I Project will include 1) 2,500 linear feet of new 10-inch Ductile Iron Pipe (DIP) and 460 feet of 6-inch DIP installed by open trench construction connecting the new DIP water main located behind between La Nebbia Winery to Sun Studios; and 2) ~400 linear feet of 10-inch DIP installed by open trench construction and 260 linear feet of 12-inch High Density Polyethylene (HDPE) installed by Horizontal Directional Drilling (HDD) under

Corinda Los Trancos Creek to replace the existing 12" WS pipe that crosses between Pastorino Farms and La Nebbia Winery.

Once Phase I is designed, this project will be bid with the recently approved Emergency portion of the 92 work as one contract. The District is separating the design and construction efforts in order to maintain our potential eligibility for FEMA reimbursement for the section of pipe damaged in the 2023 New Year's Eve storm event.

District staff recommends that the Board approve a professional services agreement with EKI for a not-to-exceed budget of $127,900 for engineering services for the Highway 92 Potable Pipeline Project Phase I. The scope of services will cover the design, bid support, property acquisition support, and engineering services during construction. (See Attachment A.)

Fiscal Impact: $127,900 for engineering services.

Corporate Office
2001 Junipero Serra Boulevard, Suite 300
Daly City, CA 94014
(650) 292-9100
ekiconsult.com

31 May 2023

Ms. Mary Rogren
General Manager
Coastside County Water District
766 Main St.
Half Moon Bay, CA 94019

Subject: Proposal for Engineering Services for the Highway 92 Potable Water Pipeline – Phase 1
Coastside County Water District, Half Moon Bay, California
(EKI C3-068)

Dear Ms. Rogren:

EKI Environment & Water, Inc. (EKI) is pleased to provide this proposal to Coastside County Water District (District) for engineering services for the Highway 92 Potable Water Pipeline – Phase 1 (Project).

PROJECT UNDERSTANDING

An existing 12-inch welded steel (WS) potable water pipeline runs along the south side of Highway 92 (San Mateo Road) and adjacent to Pilarcitos Creek in a 10-foot-wide easement. The existing pipeline crosses Pilarcitos Creek and its tributaries in several locations. The District has initiated preliminary planning work to replace the entire pipeline and has targeted the full replacement of the pipeline by fiscal year 2027/2028 in its current capital improvement program budget.

The District intends to complete the project in multiple phases. Emergency conditions requiring expedited replacement exist along segments of the pipeline damaged during the 2022/2023 winter storms. The District is seeking Federal Emergency Management Agency (FEMA) funding to help cover a portion of the emergency restoration, which it expects to complete in fall/winter 2023-2024. The District is currently applying for funding under the FEMA Public Assistance grant program, and EKI is currently preparing the design for this section under a separate scope of work.

In addition to the Emergency Project covered under the FEMA grant application, the District intends to construct the following sections to complete an initial phase of the Highway 92 Potable Water Pipeline (see Figure 1):

1. Approximately 2,500 linear feet of 10-inch ductile iron pipeline (DIP) and 460 linear feet of 6-inch DIP installed by open trench construction between La Nebbia Winery and Sun Studios; and
2. Approximately 400 linear feet of 10-inch DIP installed by open trench construction and 260 linear feet of 12-inch HDPE installed by horizontal directional drilling (HDD) under Corinda Los Trancos Creek to replace the existing 12" WS pipe that crosses between Pastorino Farms (APN 556-331-020) and La Nebbia Winery (APN 056-331-110).

EKI has completed detailed design of the 2,500 linear feet section between La Nebbia Winery and Sun Studios. Thus, this scope of work includes (1) the detailed design of the portion of pipe crossing Corinda Los Trancos Creek and connecting the pipeline between Pastorino Farms and La Nebbia Winery, (2)

consolidating each portion of the Project into a single bid package, (3) bid support, (4) property acquisition support, and (5) engineering services during construction (ESDC).

EKI proposes to team with O'Dell Engineering (O'Dell) to provide property acquisition support. Geotechnical investigations, environmental documentation and permitting support, and additional property acquisition support services are being performed under separate scopes of work. In addition, EKI assumes that the District will provide construction inspection services and mitigation monitoring services during construction.

SCOPE OF WORK

EKI proposes the following tasks as part of this scope of work. For each of these tasks, EKI will also be providing project management services, including budget tracking, invoicing, preparation of progress reports, and staff management.

Task 1 – Base Map Development

EKI will use the O'Dell 2019 aerial topographic and boundary surveys, supplemental field data collected using a GPS unit, and as-built records of the Project site from other utility agencies to create a base map in AutoCAD. This base map will include topographic data, existing utilities, boundary data, and aerial images.

Deliverables:

- A PDF of the draft Project base map.

EKI Assumptions:

- EKI will rely on the aerial topographic and boundary surveys prepared by O'Dell in 2019.
- EKI will collect supplemental field data using a Trimble R-10 GPS unit to confirm the location of surface features along the proposed pipe alignment.
- The District will provide any as-built records for the Project area, if available.
- EKI will request as-built information from other utilities, including Pacific Gas and Electric (PG&E).
- Project plan view sheets will be based on the topographic and boundary surveys, collected GPS information, and utility information.

Task 2 – Design Services

EKI proposes to expedite the detailed design to align with the schedule for the Emergency Project. EKI will provide two design submittals corresponding to 90% and Final design level. The 90% Design submittal will include a complete set of plans and specifications and an opinion of probable construction cost (OPC). EKI will complete HDD hydrofracture and pullback calculations and assess property acquisition requirements as part of the 90% design. EKI will document findings in a Basis of Design Memorandum. The 90% design will also consolidate the portion of the project already designed between La Nebbia Winery and Sun Studies. A design review meeting will be held for the 90% Design Submittal. After receipt of all District

comments, EKI will prepare the Final design submittal, which will include signed and sealed Contract Documents ready to bid. District comments on the 90% Design submittal will be documented and tracked to confirm incorporation into the Final Design submittal.

The anticipated list of contract drawings is presented in Table 1 below.

Table 1. Anticipated List of Contract Drawings

Sheet No.	Description	100% Design Completed
1	Title Sheet, Location Map, and Key Map	
2	General Notes, Legend, and Abbreviations	
3	Key Map, Control Points, and Survey Notes	
4	Plan, APN 056-331-020	-
5	Plan and Profile, Corinda Los Trancos Creek HDD Crossing	-
6	Plan, APN 056-331-110	X
7	Plan, APN 056-331-110 and -120	X
8	Plan, APN 056-331-120	X
9	Plan, APN 056-331-120, -130, -040	X
10	Plan, APN 056-331-040 and -130 and 056-341-190	X
11	Plan, APN 056-341-190	X
14	Construction Staging Areas	
15	Construction Details – 1	
16	Construction Details – 2	
16	Construction Details – 3	
17	Best Management Practices	

Deliverables:

- 90% Design Submittal:
  - PDF file of the 90% plans;
  - PDF file of the 90% specifications;
  - PDF file of the 90% OPC; and
  - PDF file of Basis of Design Memorandum.
- Final Design Submittal:
  - PDF file and five (5) 22” x 34” hard copies of the signed and stamped final plans;
  - PDF file and five (5) hard copies of the signed and stamped final specifications;

  - PDF file of the final OPC; and
  - An editable word file of the Notice to Bidders and Contract.
- 90% Design Review Meeting minutes and comments logs within 5 business days of the meeting.

EKI Assumptions:

- For budgeting purposes, EKI assumes that the Emergency Project and the other portions of Phase 1 will be bid separately and require two separate bid packages.
- The Emergency Project engineering services will be completed under a separate scope of work.
- Design documents will be based on the District standard front end, technical specifications, and details.
- EKI will prepare technical specifications for HDD construction, HDPE pipe, contact grouting, and environmental requirements.
- EKI will document HDD hydrofracture and pullback calculations as part of the Basis of Design Memorandum.
- Profile views will be included for the HDD crossings but not for the open-trench sections.
- Full-sized plan sheets will be 22” x 34”.
- The District will review and provide comments at the 90% level of design.
- During the development of the 90% Design Submittal, EKI will review the proposed pipeline alignment in the field with District staff.

Task 3 – Property Acquisition Support Services

EKI will provide the District property acquisition support services. EKI will prepare exhibits showing the proposed easements for the Project that can be used to communicate with property owners and the District’s appraiser. EKI will also participate in meetings with property owners to answer any design or construction-related questions.

In addition, EKI will team with O’Dell to prepare land description packages to support permanent and temporary easement acquisitions for the construction and new pipelines installed as part of the Project. Each land description package will include a written description, a closure report, and a plat (exhibit).

Deliverables:

- PDF files of the easement exhibits.
- PDF file of the land description packages signed and stamped by a California licensed Professional Land Surveyor.

EKI Assumptions:

- EKI assumes participation in 4 hours of meetings with property owners.
- Based on the anticipated pipeline alignment, EKI assumes that the District will need to obtain 2 separate permanent easements and 1 temporary easement for the Project.

- Scope is limited to one set of comments from all parties involved for each land description package. District to coordinate comments from all involved parties and deliver as one set.
- Scope does not include preparation of deeds/deed jackets, title services, real property appraisals, real property acquisition/negotiation services, or recordation services.
- Scope does not include setting of property corner monuments or other marks on old or new property lines.

Task 4 – Bid Support

During the bidding period, EKI will participate in a pre-bid meeting, provide the District responses to questions from prospective bidders, prepare up to one addendum, and provide a review of bids to determine if bids are responsive and responsible. EKI will prepare a conformed set of contract documents that incorporates any changes included in the addenda.

Deliverables:

- Pre-bid meeting agenda and minutes.
- Response to bidders' questions.
- One addendum in PDF format.
- Bid tabulation and review email.
- Conformed contract documents in PDF format and five (5) 22" x 34" hard copies.

EKI Assumptions:

- For budgeting purposes, EKI assumes that the Emergency Project and the other portions of Phase 1 will be bid separately.
- EKI will coordinate with the plan house to host the Bid Documents. The District will pay any fees directly to the plan house.
- Pre-bid meeting will be held in person at the Project site.
- Responses to bidder's questions will be transmitted electronically.
- No more than one bid addendum will be required.

Task 5 – Engineering Services During Construction

EKI will provide engineering services during construction. These services will focus on the following: one pre-construction meeting, periodic progress meetings, progress payment reviews and approvals, potential change order (PCO) tracking, contract change order (CCO) preparation and negotiation, submittal reviews, and request for information (RFI) support. EKI will prepare record drawings from the Contractor's redline drawing submittal at the end of the Project.

Deliverables:

- Submittal review letters.

- RFI response letters.
- Preconstruction meeting agenda and minutes.
- Progress meeting agenda and minutes (2 assumed).
- Progress Payment review letters (3assumed).
- CCOs (2 assumed).
- PDF copy of Record Drawings.

EKI Assumptions:

- For budgeting purposes, EKI assumes that the Emergency Project and the other portions of Phase 1 will be completed under two separate construction contracts.
- EKI will maintain submittal, RFI, PCO, CCO, and issues logs.
- Submittals and RFI communication shall be through email employing PDFs using EKI's standard forms for submittal and RFI review.
- EKI will review up to 22 submittals and 10 resubmittals at an assumed level of effort of 2.5 hours per review.
- EKI will review up to 3 RFIs at a level of effort of 4 hours per review.
- EKI will attend the in-person preconstruction meeting.
- EKI will inspect HDD activities (assume 3 days of inspection)
- EKI will recommend payment for all progress payments and prepare CCOs.
- EKI will participate in the punch list walkthrough.
- The District will provide inspection services and will issue Notice of Award, Notice to Proceed, and review contractor quantities on each invoice.
- EKI will prepare record drawings based on the redline drawings provided by the Contractor.

PROJECT SCHEDULE

EKI anticipates that the design will be completed within three (3) months of notice to proceed. Bid and construction-phase services will be completed in a timely manner, consistent with the District's schedule for bidding and construction. EKI will prepare a detailed Project schedule as an initial task.

COMPENSATION FOR CONSULTING SERVICES

We propose that compensation for consulting services by EKI be on a time and expense reimbursement basis in accordance with our attached current Schedule of Charges, dated 2 January 2023. Based on the proposed Scope of Work described above, we propose a budget of $127,900 for the competition of tasks 1 through 5. The proposed budget is presented by task in Table 2 and detailed in Table 3, attached.

Table 2. Proposed Cost by Tasks

Task	Description	Task Total
1	Base Map Development	$5,800
2	Design Services	$43,600
3	Property Acquisition Support Services	$23,200
4	Bid Support Services	$8,300
5	Construction Management and Engineering Services During Construction	$47,000
	Total Estimated Budget	**$127,900**

TERMS AND CONDITIONS

Other than the scope of work, budget, and schedule herein, the work will be performed in accordance with our current Agreement dated 5 August 2022.

Thank you for the opportunity to work with the District on this project. Please contact Jonathan Sutter at 650-292-9100 with any questions.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.

Jonathan Sutter, P.E.
Supervising Engineer

Mike Vasquez, P.E., P.L.S.
Principal Engineer

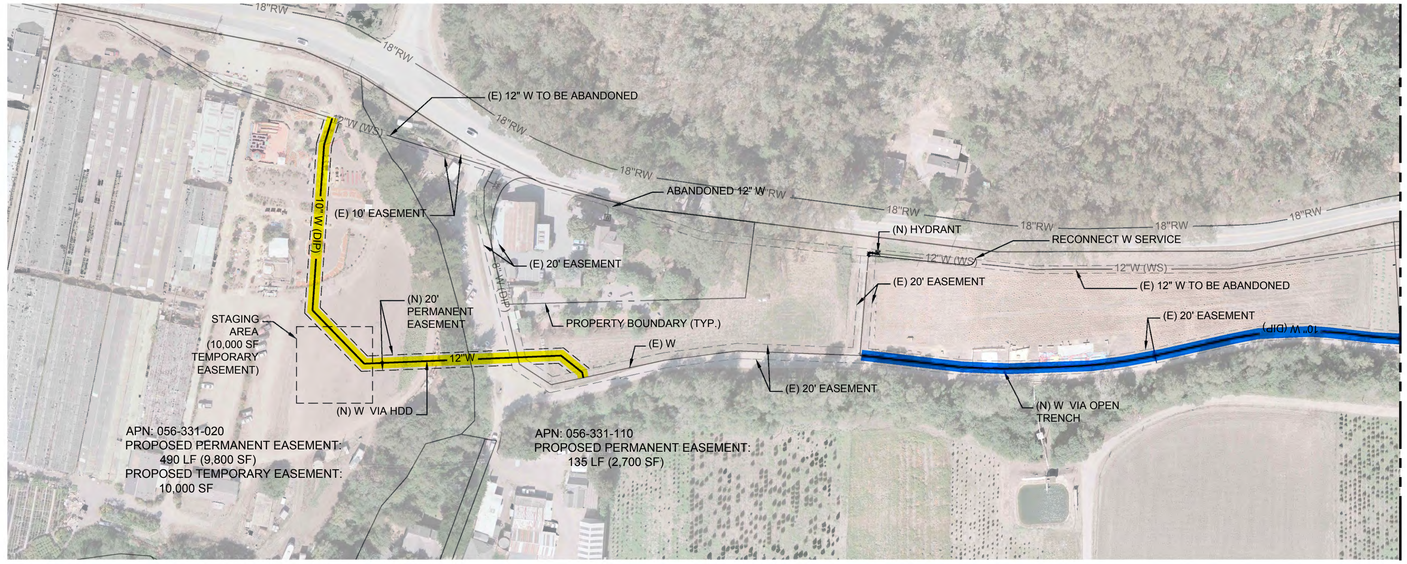
cc: James Derbin, CCWD

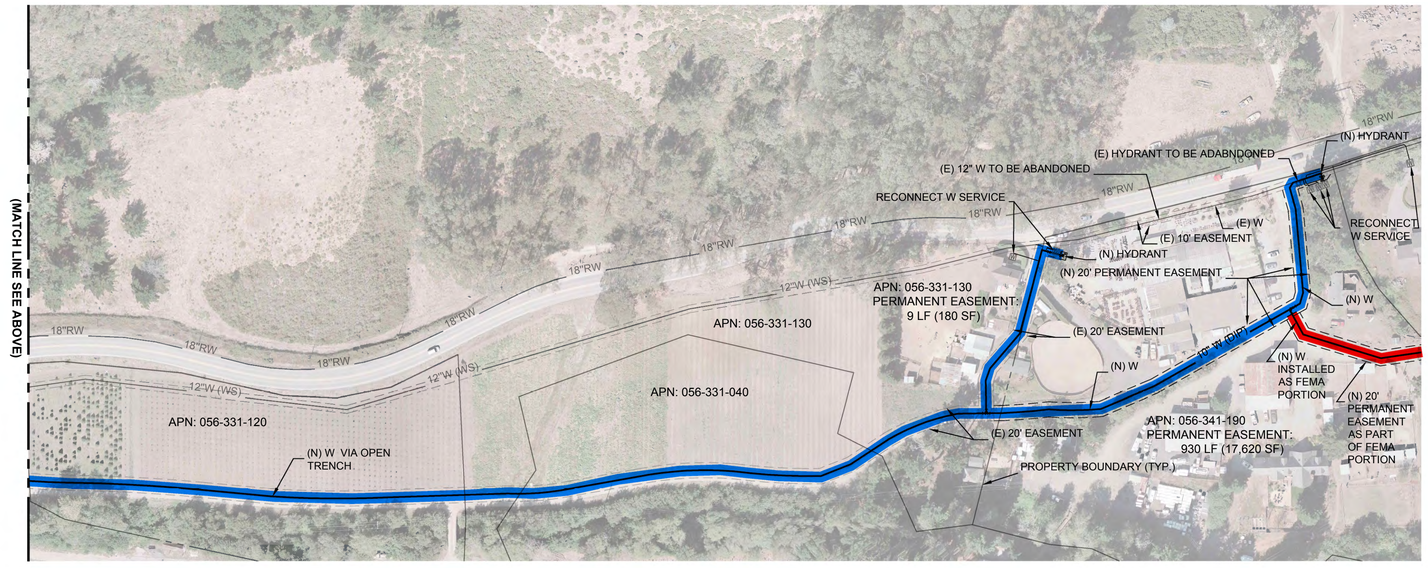
Attachments

Figure 1 – Conceptual Project

Table 3 – Estimated Budget

EKI Schedule of Charges, dated 2 January 2023





CONCEPTUAL MAP

NOT FOR CONSTRUCTION

PLAN

0 50 100 200 300

SCALE: 1" = 200'

NOTES:

1. CONCEPTUAL MAP IS SUBJECT TO CHANGE DURING DETAILED DESIGN.

LEGEND

- OPEN TRENCH SECTION BETWEEN LA NEBBIA WINERY AND SUN STUDIOS (DESIGN COMPLETE)
- CORINDA LOS TANCOS CREEK CROSSING AND PASTORINO FARMS CONNECTIONS
- EMERGENCY (FEMA) SECTION

REGISTERED PROFESSIONAL ENGINEER
JONATHAN P. M. SUTTER
C 81606
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

CONCEPTUAL MAP

ekl environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

HIGHWAY 92 POTABLE WATER PIPELINE - PHASE 1

COASTSIDE COUNTY WATER DISTRICT

CONCEPTUAL MAP

	DATE	APPRD	DESCRIPTION	REV

DATE: APRIL 2023
SCALE: AS SHOWN
DRAWN: JG
DESIGNED: JPNS
APPROVED: MV
JOB NO.: B80108.25

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
1
1 OF 1

Table 3. Estimated Budget - Design, Bid Support, and Construction Services for the Highway 92 Potable Water Pipeline - Phase 1

Coastside County Water District, Half Moon Bay, California

(EKI C3-068)

TASKS	ESTIMATED EKI HOURLY LABOR					SUBS	DIRECT COSTS						TOTAL	
	G4 Engineer	Jordan Gans	Jonathan Sutter, P.E.	Mike Vasquez, P.E.	LABOR COST ($)	O'Dell Engineering	UNIT	QUANTITY	UNIT COST	TOTAL COST	MARKUP ON DIRECT COSTS	TOTAL DIRECT COSTS	TASK BUDGET TOTALS ($)	ROUNDED BUDGET TOTALS ($)
	$178	$200	$309	$320							10%			
Task 1 - Base Map Development														
Project Management			2		$618								$618	
Site Walk and Supplemental Data Collection	4	4	1		$1,821		LS	1	$500	$500	$50	$550	$2,371	
Finalize Base Map	2	8	2		$2,574								$2,574	
Communications Fee (EKI Labor Only)								4%	$5,013			$201	$201	
Task 1 Subtotal	6	12	5		$5,013						$50	$751	$5,764	$5,800
Task 2 - Design Services														
Project Management			8		$2,472								$2,472	
Prepare Settlement, Hydrofracture, and Pullback Calculations		12	6		$4,254								$4,254	
Develop 90% Drawings	16	40	12		$14,556								$14,556	
Develop 90% Specifications	6	8	2		$3,286								$3,286	
Develop 90% Opinion of Probable Costs and Construction Schedule		4	2		$1,418								$1,418	
Prepare Basis of Design Memorandum	8	6	4		$3,860								$3,860	
QA/QC 90% Design Submittal				6	$1,920								$1,920	
Prepare, Conduct, and Document 90% Design Review		4	2		$1,418								$1,418	
Develop Final Design Submittal	16	12	6		$7,102		LS	1	$300	$300	$30	$330	$7,432	
QA/QC Final Design Submittal				4	$1,280								$1,280	
Communications Fee (EKI Labor Only)								4%	$41,566			$1,663	$1,663	
Task 2 Subtotal	46	86	42	10	$41,566						$30	$1,993	$43,559	$43,600
Task 3 - Property Acquisition Support Services														
Project Management		2	4		$1,636								$1,636	
Preparation of Easement Exhibits	12	8	4		$4,972								$4,972	
Meeting with Property Owners			4		$1,236								$1,236	
Preparation of Land Description Packages		8	4		$2,836	$11,000					$1,100	$12,100	$14,936	
Communications Fee (EKI Labor Only)								4%	$10,680			$427	$427	
Task 3 Subtotal	12	18	16		$10,680	$11,000					$1,100	$12,527	$23,207	$23,200
Task 4 - Bid Support Services														
Pre-Bid Meeting		5	3		$1,927								$1,927	
Provide Bid Support (Respond to Questions and prepare 1 Addendum)		8	4	1	$3,156								$3,156	
Bid Evaluation		2	1		$555								$555	
Prepare Conformed Contract Documents	6	4	1		$2,023		LS	1	$300	$300	$30	$330	$2,353	
Communications Fee (EKI Labor Only)								4%	$7,660			$306	$306	
Task 4 Subtotal	6	19	8	1	$7,660						$30	$636	$8,296	$8,300
Task 5 - Construction Management & Engineering Support During Construction														
Project/Construction Management		8	16	2	$7,184		LS	1	$100	$100	$10	$110	$7,294	
Attend Pre-Construction Meeting		5	3		$1,927								$1,927	
Review Construction Submittals (22 Submittals and 10 Resubmittals)	40	24	16		$16,864								$16,864	
Progress Meetings (2 assumed)		4	3		$1,727								$1,727	
Respond to Requests for Information, RFIs (3 RFIs)		9	3		$2,727								$2,727	
HDD Specialty Inspection		16	8		$5,672		LS	1	$300	$300	$30	$330	$6,002	
Prepare Progress Payment Review Letters (3 assumed) and CCOs (2 assumed)		4	8		$3,272								$3,272	
Attend Punchlist Walk			4		$1,236								$1,236	
Preparation of Record Drawings	8	6	4	1	$4,180								$4,180	
Communications Fee (EKI Labor Only)								4%	$44,789			$1,792	$1,792	
Task 5 Subtotal	48	76	65	3	$44,789								$47,021	$47,000
TOTALS:	**118**	**211**	**136**	**14**	**$109,708**	**$11,000**				**$1,500**	**$1,250**	**$18,138**	**$127,846**	**$127,900**

Client/Address: **Coastside County Water District**
766 Main St.
Half Moon Bay, CA 94019

Proposal/Agreement Date: 31 May 2023 **EKI Proposal/Project # C3-068**

SCHEDULE OF CHARGES FOR EKI ENVIRONMENT & WATER, INC. **2 January 2023**

Personnel Classification	Hourly Rate
Officer and Chief Engineer-Scientist	332
Principal Engineer-Scientist	320
Supervising I, Engineer-Scientist	309
Supervising II, Engineer-Scientist	298
Senior I, Engineer-Scientist	286
Senior II, Engineer-Scientist	275
Associate I, Engineer-Scientist	264
Associate II, Engineer-Scientist	248
Engineer-Scientist, Grade 1	231
Engineer-Scientist, Grade 2	218
Engineer-Scientist, Grade 3	200
Engineer-Scientist, Grade 4	178
Engineer-Scientist, Grade 5	157
Engineer-Scientist, Grade 6	138
Project Assistant	130
Technician	125
Senior GIS / Database Analyst	162
CADD Operator / GIS Analyst	144
Senior Administrative Assistant	159
Administrative Assistant	124
Secretary	104

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus ten percent (10%) for items such as:

a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
b. Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
c. Rented vehicles, local public transportation and taxis, travel, and subsistence.
d. Special fees, insurance, permits, and licenses applicable to the work.
e. Outside computer processing, computation, and proprietary programs purchased for the work.

A Communication charge for e-mail access, web conferencing, cellphone calls, messaging and data access, file sharing, local and long distance telephone calls and conferences, facsimile transmittals, standard delivery U.S. postage, and incidental in-house copying will be charged at a rate of 4% of labor charges. Large volume copying of project documents, e.g., bound reports for distribution or project-specific reference files, will be charged as a project expense as described above.

Reimbursement for company-owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the rate of sixty cents ($0.60) per mile. The rate for company-owned trucks and four-wheel drive vehicles will be seventy-five cents ($0.75) per mile. There will be an additional charge of thirty dollars ($30.00) per day for vehicles used for field work. Reimbursement for use of personal vehicles will be at the federally allowed rate plus fifteen percent (15%).

CADD and other specialized software computer time will be charged at twenty dollars ($20.00) per hour. In-house material and equipment charges will be in accordance with the current rate schedule or special quotation. Excise taxes, if any, will be added as a direct expense.

Rate for professional staff for legal proceedings or as expert witnesses will be at a rate of one and one-half times the Hourly Rates specified above.

The foregoing Schedule of Charges is incorporated into the Agreement for the Services of EKI Environment & Water, Inc. and may be updated annually.

STAFF REPORT

To: **Coastside County Water District Board of Directors**

From: **Mary Rogren, General Manager**

Agenda: **June 13, 2023**

Repost Date: **June 9, 2023**

Agenda Title: Approval of Professional Services Agreement with Water Works Engineers, LLC. for a Water Reuse Feasibility Study

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Recommendation/Motion:

Approve a Professional Services Agreement with Water Works Engineers, LLC. ("Water Works") for a Water Reuse Feasibility Study for a not-to-exceed budget of $299,977.

Background:

As the water retailer for the City of Half Moon Bay, El Granada and parts of unincorporated San Mateo County, the District is committed to pursuing a resilient, sustainable, and integrated water supply for the Coastside including evaluating options for alternative water supplies involving water reuse. In addition, both the State of California and the Federal government are encouraging development of alternative supplies that focus on water reuse and have provided a window of support and funding opportunities for agencies to develop and invest in water reuse opportunities.

Particularly over the last 10 years, new technologies and approaches as well as changes in regulations have been introduced in the world of water reuse. The District is interested in taking a fresh look at what alternatives might now or will soon be feasible for our coastal community.

The District sought and received three proposals for a water reuse feasibility study, and District staff and the Water Reuse Advisory Committee conducted in-person interviews with the three firms. Although staff and the Advisory Committee found all three firms to be impressive and highly qualified, staff recommends that the District move forward with Water Works Engineers, LLC. Water Works is a regional west coast firm (with an office in San Mateo) with strong technical expertise in water and wastewater engineering including feasibility assessment and execution of water reuse projects. (A copy of the Water Works proposal is attached and includes descriptions of many of the firm's water reuse projects as well as the assembled team's resumes.)

Water Works will focus much of their effort for the District's feasibility study on assessing the hydrogeology of the region, technical, regulatory, and permitting requirements and economic feasibility in order to derive and evaluate potential alternatives for water reuse.

The project timeline will take approximately 9-12 months. As the feasibility study efforts get underway, staff will engage with other agencies and key stakeholders in the community.

Financial Impact:

Not-to-exceed budget of $299,977. Staff is pursuing a grant with the State Water Resources Control Board to cover 50% of the study costs.

February 6, 2023

RE: Proposal for the Coastside County Water District Recycled Water Feasibility Study

Dear Ms. Rogren and Distinguished Members of the Selection Committee:

The Water Works Engineers, LLC team (Water Works) is pleased to submit the attached Coastside County Water District (District) Recycled Water Feasibility Study proposal. We understand that the District would like a feasibility study to determine the most beneficial use for recycled water that is feasible and to study alternatives that have not been previously studied. To meet District objectives, we have assembled the team of Water Works staff and key teaming partners to provide a detailed study including all aspects of recycled water. Our key teaming partners include Andy Zdon at Roux for his geology and hydrogeology expertise, Noel Bush at Remedy Engineering for her hazardous materials expertise, and Jim Bianchin at Bajada Geosciences for his geology experience. We have worked with these subconsultants on many projects throughout California.

What makes our team unique is our local presence with an office in San Mateo and our technical experience with assisting agencies with non-potable reuse and direct potable reuse projects. We are on the forefront of new technologies through our direct potable reuse recycled water work in Arizona. Arizona is considered to be leading edge of potable recycled water use. Some of our team members include the following people.

- **Cindy Bertsch** as our local project manager brings knowledge about local water systems in the bay area as well as successful project delivery for municipalities across California. Cindy's core focus is recycled and potable water projects.
- **Sami Kader**, our principal in charge is known for his out-of-the-box thinking to meet client goals effectively within available budget.
- **Ben Lee** our internal technical advisor will guide our efforts to leverage the knowledge learned on recent projects in Arizona such as assisting the City of Scottsdale in acquiring the states' first direct potable reuse permit.

The assembled team has completed planning, design, permitting, startup, and construction for recycled water projects. Having experience with the full project cycle allows our team to understand the bigger picture as well as the critical details. We have a broad range of experience that will be useful when completing the feasibility assessment. Some of our recycled water projects include the following.

- Assisting the City of Scottsdale, AZ in acquiring the states' first direct potable reuse permit.
- Completing a feasibility study for Oro Loma Sanitary District (San Leandro, CA) to construct a 100,000-gpd water recycling system and fill station for residential and light commercial customers.
- Evaluating the Palo Alto Water Quality Control Plant to add additional recycled water capacity.
- Evaluating whether harvesting wastewater and treating it or pumping recycled water

would be the best option for Meadow Golf Club's irrigation water in Marin County.

- Planning, designing, and permitting recycled water treatment for the Pasatiempo Golf Course in Santa Cruz.
- Assistance in permitting a recycled water system for a business campus in Los Angeles County.

We look forward to partnering with the District to create a study detailing the path forward to beneficial water reuse for the region. Please contact Cindy at 650-389-9166 or cindyb@wwengineers.com or Sami at 530-355-7646 or samik@wwengineers.com with any questions on our proposal. We look forward to the opportunity to work with the District.

Very Truly Yours,

WATER WORKS ENGINEERS, LLC

Cindy Bertsch
Project Manager

Sami Kader, PE
Principal-In-Charge

FIRM PROFILE

Water Works Engineers, LLC (Water Works) was formed in 2005 by engineers who believed that water and wastewater engineering and consulting could be done a better way by combining the best attributes of large and small firms: ***the technical expertise of a large firm and efficiency and personal attention of a small one***. Our vision was the formation and growth of a new kind of engineering firm, ***a firm built on providing exceptional client service from highly experienced engineers in a "hands-on" highly interactive and enjoyable environment.***

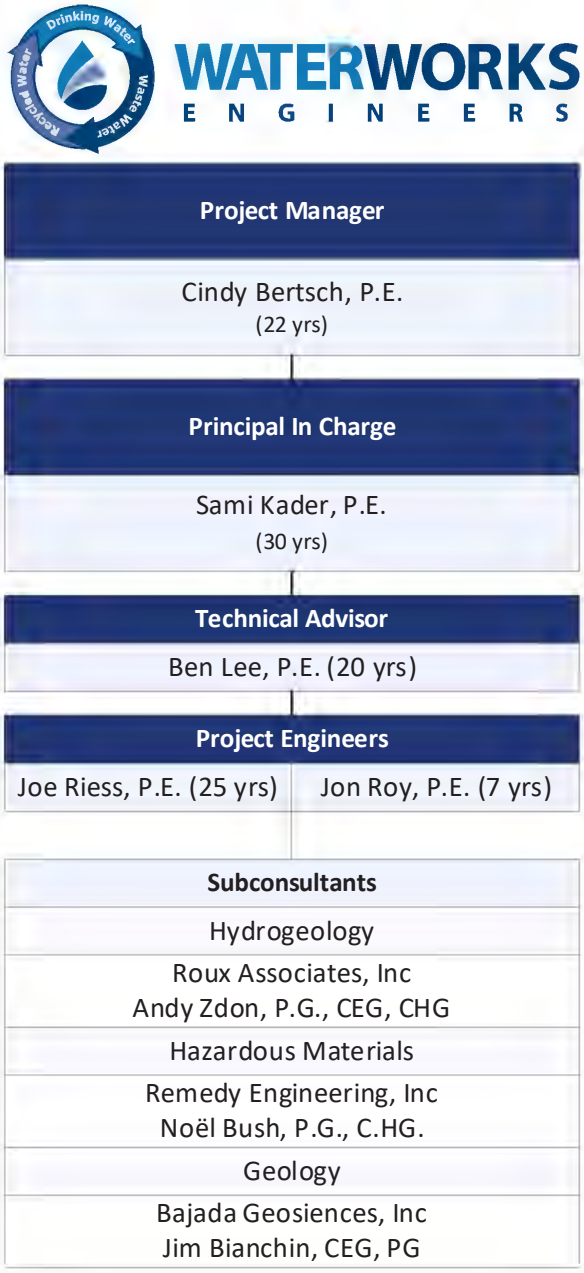
To accomplish our vision, Water Works Engineers and all our teaming partners provide high-level staffing on every project with a ***leaner overall firm structure*** that is focused on delivering high quality work for client-specific needs. ***We focus solely on water, recycled water and wastewater treatment, distribution, and collection systems infrastructure.*** This focus makes us efficient, keeps us up to date, and allows us to provide the highest level of service. Our focus and work approach allow us to provide high-quality planning and design products very efficiently. ***We take immense pride in the fact that we do not just create documents, we facilitate projects.***

This focus and approach have fueled a consistent increase in our clients and projects, whereby over the past five years and grown from 4 offices and 45 employees with about $10M in revenue to 7 offices and 95 employees with just under $20M in revenue. By focusing exclusively on water and wastewater engineering, Water Works provides **focused expertise** rather than the overall umbrella approach of many civil engineering firms. It is with these core values in mind that we assembled our team for the project.

Based on our experiences, we strongly believe that ***people execute projects, not firms***. For that reason, the Water Works team is ***committing high quality, senior staff with in-depth experience directly relevant*** to recycled water projects. Our team of highly experienced professionals brings an extremely practical down to earth attitude to their work and has a ***track record of providing innovative, cost-effective solutions to complex problems.***

Team Organization Chart

A brief summary for key team members is listed below. Two-page resumes are included for key team members in Appendix A.



Sami Kader - Principal in Charge

Sami has over 29 years of experience in water and wastewater system planning, design, construction, and operations. Sami is a Founder and Principal Engineer of Water Works Engineers and serves as a technical advisor for many major projects for the firm. Sami has been the principal for the recycled water projects we have completed in California.

Cindy Bertsch – Project Manager

Cindy is a civil engineer with 21 years of experience focusing on municipal water and wastewater planning and design. Her experience includes performing engineering evaluations; preparing technical drawings, specifications, and cost estimates; completing construction services; facilitating permitting; writing master and facility plans; and hydraulic modeling. Cindy has worked on many recycled water projects from master planning, design, and permitting throughout California and Northern Nevada.

Ben Lee – Technical Advisor – Wastewater Treatment and Direct Potable Reuse

Ben has worked with a team of engineers to pioneer the implementation of direct potable reuse water for the City of Scottsdale, thereby providing alternatives to surface and groundwater sources. He has performed water demand analyses and water master planning and is a leader in water treatment and water quality, including leading the design of the Town of Gilbert's North WTP Expansion to improve the plant's ability in treating a variety of source waters (surface and ground). He led the development of the City of Scottsdale's Advanced Water Treatment facility and the Direct Potable Reuse (DPR). His work in DPR has contributed to establishing the State's standards and regulations for DPR.

Joe Riess – Project Engineer

Joe is a water/wastewater process design engineer with over 24 years of experience in large and small civil infrastructure (water and wastewater treatment) projects, including feasibility studies, alternatives analyses, and design for treatment plant upgrades, expansions, modifications, and collection and treatment system monitoring. He has specific experience in treatment process selection, closed conduit and open channel hydraulic modeling, CADD design, GIS/GPS mapping, and other computer applications for designing and optimizing water and wastewater treatment and distribution systems. Joe has worked on recycled water projects from design to

treatment plant startup.

Jon Roy - Project Engineer

Jon is a Civil Engineer with experience in water infrastructure constructability and the design of water storage and conveyance facilities.

Andy Zdon P.G., C.Hg., CEG, Roux (Hydrogeology)

Mr. Zdon has more than 30 years of experience in a variety of geology and hydrogeology-related projects. He is a California Professional Geologist, Certified Hydrogeologist and

Certified Engineering Geologist. Mr. Zdon is a recognized subject matter expert in numerical groundwater flow modeling and has been an instructor at California State University, Los Angeles in Groundwater Models and Management (1995).

Noel Bush P.G., C.Hg., Remedy Engineering (Hazardous Materials)

Ms. Bush is a registered professional geologist and a certified hydrogeologist in California. She has over 18 years of experience in the environmental field conducting site assessments, remediation implementation, and regulatory closure at several sites. She has served as a project manager for several complex projects through assessment, remediation, and closure. Ms. Bush has an excellent working relationship with regulatory agencies including the Regional Water Quality Control Board San Francisco Bay Region, and Department of Toxic Substances Control, and the United States Environmental Protection Agency. Noel's experience allows us to recognize and address potential environmental issues early so that your project is not halted during the implementation phase due to the discovery of unanticipated environmental issues.

Jim Bianchin, CEG, PG, Bajada Geosciences (Geotechnical) -- Engineering Geologist

Jim is a senior geologist and founder of Bajada Geosciences, Inc. with 33 years of experience. He manages and provides geologic services for geotechnical projects located throughout California. Jim has specialized in geotechnical services related to reservoir, pipeline, and treatment plant facility projects. Jim has a long history of providing his technical expertise to make Water Works' projects successful by identifying challenges upfront.

Project Experience

City of Scottsdale AWT Expansion & Direct Potable Reuse Permitting

The Water Campus Advanced Water Treatment (AWT) system treats tertiary effluent for recharge and irrigation using microfiltration (MF) and reverse osmosis (RO) systems. The AWT Expansion construction increases the treatment capacity from 11.9 to 20.0 mgd annual average day flow (AADF). The MF system construction proceeded in a phased effort to remove half of the existing MF equipment and support systems, install a portion of the new MF equipment and support systems while the other half of the existing MF equipment was kept operational using temporary Clean-in Place (CIP) and compressed air systems. The Water Reclamation Plant (WRP) producing the tertiary effluent for the AWT used temporary storage and feed systems while an existing building was significantly modified to house the generators, brine, and storage tanks. Water Works Engineers remains involved to complete other system additions for Ultraviolet (UV) and Ozone disinfection associated with the advance oxidation process to meet the Owner's goals of reducing other unregulated compounds associated with chlorine based disinfection and pharmaceutical and personal care products (PPCPs).

Water Works also assisted the City of Scottsdale in acquiring the first direct potable reuse permit. Water Works collaborated with the City staff to design and construct a DPR treatment system that is used for validating the proposed treatment process.

Team Members:

Ben Lee	Project Manager

References:

Suzanne Grendahl, PE Water Quality Director	David Walby Water Reclamation Director
(480) 312-8719	(480) 312-7931
SGrendahl@scottsdaleaz.gov	DWalby@scottsdaleaz.gov

City of Scottsdale Water Reuse Master Plan

(11-001)

Water Works Engineers provided master planning services for the City of Scottsdale wastewater collection, conveyance, treatment, and effluent management systems. For each of these systems, a review was performed, scenarios were developed and evaluated, and recommendations were made through the planning horizon of 2035. An innovative approach to design storm development and rainfall derived infiltration and inflow (RDII) modeling were used, which included both rain gauge data and radar data with 1 km granularity. This method provided more accurate estimates of RDII peaking factors and provided insight into the cost/benefit of rehabilitation programs. In addition to flow sampling conducted as part of the project, water quality sampling was conducted within the collection system to understand spatial differences in the City's wastewater quality and to evaluate how this could inform operational decisions. The wastewater treatment systems were also evaluated, including expansion needs, cost efficiencies between the City's three treatment plants, and the evaluation of solids treatment at the Water Campus. Effluent management was considered as it relates to reuse and recharge needs as well as long-term water resource planning in the City. Large scale engineered rainfall harvesting opportunities were evaluated as a feasible way to increase the available reclaimed water resource. The City currently provides reclaimed water to 24 golf courses and recharges tens of thousands of acre-ft annually.

Team Members:

Ben Lee	Project Manager

References:

Suzanne Grendahl, PE Water Quality Director	David Walby Water Reclamation Director
(480) 312-8719	(480) 312-7931
SGrendahl@scottsdaleaz.gov	DWalby@scottsdaleaz.gov

California Water Service (Cal Water)- Multiple Projects

We have completed multiple recycled water projects for Cal Water and have been on their on-call list for recycled water projects. We have designed a new membrane bioreactor (MBR)/UV disinfection process for the Pukalani wastewater treatment plant in Hawaii where the recycled water is used on a nearby golf course. We have also assisted Cal Water with adding recycled water to new communities at Tesoro Viejo in Madera County and the preserve at Millerton Lake near Fresno. Assistance ranged from treatment plant design to reviewing the proposed recycled water infrastructure and assistance with permitting. We have also written Title 22 reports for existing infrastructure such as for the Dominguez Technology Center in southern California.

Team Members:

Sami Kader	Project Manager
Cindy Bertsch	Project Manager
Joe Riess	Project Manager

Reference:

Gary Vallado Manager of Wastewater Systems
323-430-7946 (cell)
gvalladao@calwater.com

West Bay Sanitary District SHGCC Recycled Water Facility

WBSD provides wastewater collection and conveyance services to the City of Menlo Park, Atherton, and Portola Valley, and areas of East Palo Alto, Woodside and unincorporated San Mateo and Santa Clara counties. Water Works Engineers was hired, as a part of a design-build team, to design the district's first Recycled Water Facility (RWF), a 0.5 MGD scalping plant producing Title 22 compliant recycled water for irrigation of the golf course at the Sharon Heights Golf and Country Club, filling of water trucks for construction water, and possible expansion to provide cooling water for the Stanford Linear Accelerator Center.

The wastewater influent conveyance portion of the project consists of a wet-well style 1+1 influent pump station which intercepts and transmits up to 1 MGD of sewage flow from the collection system, through a 2.25-mile 12" diameter HDPE sanitary sewer force main to the RWF. The force main includes a directional drilled section, bore and jack sections, installation across SFPUC water transmission mains, PG&E high pressure gas main, and through Caltrans Right of Way.

The Recycled Water Facility includes a two-stage drum screen headworks (6mm and 2 mm), flow equalization/return, two 0.5 MGD Membrane Bioreactor (MBR) treatment trains consisting of anoxic and aerobic basins, membrane tanks, and associated pumps, blowers, and other mechanical

equipment, along with in-vessel UV disinfection. An 8,000-gal recycled water tank and a non-potable water pump station serve in-plant non-potable water needs and distribution of recycled water to pressurized distribution (truck fill, etc.). Special design components comply with local height restrictions, minimize nuisance odor issues (a two-stage bio-trickling tower and carbon adsorber odor control facility), keep noise migration at very low levels, and provide a site design compliant with surrounding easement boundaries and required site access for maintenance and firefighting/rescue requirements.

Team Members:

Sami Kader	Project Manager
Cindy Bertsch	Project Engineer

Reference:

Jed Beyer Water Quality Manager	Sergio Ramirez District Manager
(650) 477-6428 Cell	(650) 321-0384
jbeyer@westbaysanitary.org	sramirez@westbaysanitary.org

SCOPE

Task 1 – Project Management

Under this subtask, ENGINEER will monitor and track the project budget and schedule to ensure that all deadlines are met and that the project budget is not exceeded. ENGINEER will coordinate with the project team to address items such as project schedule, project budget, and current issues of concern. ENGINEER will also monitor progress and coordinate the activities being performed by all sub-consultants associated with the project and submit monthly progress reports to the CLIENT. The following will be performed under this subtask:

1) Project Kickoff Meeting
2) Project Communication and Control
    a) Coordination of all project team activities
    b) Communication of project progress and issues to CLIENT staff
    c) Project schedule maintenance and control of project tasks to keep project schedule on track
    d) Cost tracking of all engineering activities and active cost control of fees.
3) Quality Assurance/Quality Control
    a) Plan and implement Quality Assurance/ Quality Control Policy with the entire project team
    b) Ensure QA/QC procedures are being followed at each step in the design process

Meetings	• Project Kickoff Meeting (1.5 hours, virtual)
Deliverables	• Monthly Progress Reports by email (pdf)

Task 2 - Feasibility Study

The preparation of the feasibility study is into the following steps.

Task 2.1 Studies for Feasibility Study

Hydrogeology

Our subconsultant, Roux, will assist with the hydrogeology analysis. The below approach is to anticipate issues based on the proposed water-recycling scenarios and to provide hydrogeological background to the feasibility investigation. Additionally, data gaps will be identified if present for refining key aspects of the hydrogeological investigation inclusive of a review of water rights along streams considered for flow augmentation. The current proposed work would be foundational to more detailed groundwater modeling that may be required should the groundwater replenishment remain an option after the completion of the feasibility study

Data Review

Roux will review conditions in the Half Moon Bay Terrace Groundwater Basin inclusive of aspects of the groundwater conceptual model (including inflow and outflow components, hydraulic characteristics of principal water-bearing units, geologic structures, surface flow and water quality of stream waters considered for flow augmentation. Additionally, a review of water rights along those

streams will be presented. Sources of information will include the San Mateo County Office of Sustainability, U.S. Geological Survey, California Department of Water Resources, California State Water Resources Control Board, and other sources.

Field Visit

Roux will conduct a field reconnaissance of up to two field days to observe and evaluate key areas of importance relating to proposed project alternatives and the information developed in the data review task. Focus of the field reconnaissance will be stream reaches where potential recycled water could be used to supplemental flow, and potential recharge areas. Additionally, areas of key hydrogeologic importance will be visited as identified during the data and literature search and review.

Regulatory Review

Roux will conduct a regulatory review of potential discharge permitting requirements that would be required including additional investigations for a potential stream augmentation scenario for the recycle water. This will also include a water rights review as they related to the streams where potential recycled water could be used to supplement flow.

Economic Review

Roux will conduct an economic analysis quantifying project-scenario (e.g., stream augmentation vs. groundwater recharge of recycled water) transferring marginal or average values from existing valuation studies for the same or similar ecosystem services. The task would include a site visit with engineering and geological experts, reviewing and assimilating hydrologic and related data to quantify service stocks and flows, obtaining third-party data as necessary to describe use or potential use of enhanced services, reviewing the existing valuation literature to obtain valuation estimates for the various service enhancements, and developing a net present value or similar metric with associated documentation. The results of this review would also be presented in conjunction with second groundwater presentation in this task.

Report

Roux will prepare a technical report that provides a primer on key groundwater concepts that relate to the proposed project, but also provides a description of the proposed project, conceptual model of the Half Moon Bay Terrace Groundwater Basin with a focus on areas affected by the proposed project inclusive of surface water characteristics and water rights/uses; a summary of groundwater inflows and outflows, hydraulic characteristics of groundwater units, storage characteristics, and summary of conclusions including identification of data gaps, and recommendations. In the case of injection, potential extent of mounding will be considered and discussed with respect to groundwater conditions including potential water quality considerations. The report is anticipated to rely substantially on graphics to allow the user to visualize the information and concepts described. Data gathered during the investigation would be provided in appendixes in digital format.

Workshops

Two workshops will be provided including an initial concepts-oriented presentation regarding concepts such as inflow/outflow and storage considerations, development of groundwater mounds and cones of depression, and stream capture. At the conclusion of the project, a second presentation will be provided that places these concepts in specific context of Half Moon Bay Terrace Groundwater Basin conditions and the proposed project.

Meetings	• Included in the meetings task
Deliverables	• Initial Hydrogeology Workshop • Summary Hydrogeology Workshop

Geologic Hazards

Our subconsultant, Bajada Geosciences, will prepare a letter report documenting potential geologic hazards in the areas that infrastructure is being proposed. San Mateo County is full of hazards such as earthquake faults and landslides that may affect the most desirable pipeline route or treatment location. This high-level study is to determine if certain proposed alternatives should be ruled out due to the geologic risk. For example, mitigation measures are expensive to design and construct versus potentially rerouting the infrastructure.

Meetings	• None
Deliverables	• Geologic Hazards Letter Report

Hazardous Materials

Our subconsultant, Remedy Engineering, will prepare a letter report documenting potential hazardous materials that may affect a particular proposed project. For example, even though most groundwater contamination is shallow, a preferred alternative would be to inject into groundwater with no known contamination. Furthermore, soil contamination can add a lot of cost to a construction project if the contamination needs to be cleaned up. Therefore, if a particular parcel is critical to a certain alternative, we will look determine if the hazardous materials may affect the alternative. This scope assumes that up to one site will be studied for the presence of hazardous materials.

Meetings	• None
Deliverables	• Letter Report for one site

Task 2.2 Outreach, Meetings, and Tours

ENGINEER will meet with stakeholders as needed throughout the process to gather feedback, educate, and provide outreach. Up to 60 hours of meetings/tours have been included including time to prepare, meet, and document the meeting results.

Stakeholders in the recycled water planning process will benefit from seeing what other agencies in the region have done. We are proposing the following optional tours.

- ENGINEER will organize a tour at the Sharon Heights Recycled Water Facility to see the harvesting plant in action.
- ENGINEER will organize a tour at the Silicon Valley Advanced Water Purification Center to see the future of water reuse in Santa Clara County.
- ENGINEER will organize a tour at the Pasatiempo GC to see how they treated available secondary treatment into water suitable for the golf course.

Meetings	• Meetings with stakeholders either virtually or in person. Assumes up to 60 hours to prepare, meet, and document the meetings/tours
Deliverables	• Meeting notes documenting action items from meetings (pdf) • Agenda for tours (pdf)

Task 2.3 Draft Feasibility Study

Review of Existing Data

ENGINEER will review available water, wastewater, and recycled water information to understand what has already been completed. ENGINEER will work with District to identify project goals.

Alternatives

ENGINEER will prepare a feasibility study for the following alternative categories.

1. Stream Augmentation in Pilarcitos Creek
2. Direct Potable Reuse
3. Indirect Potable Reuse
4. Non-Potable Reuse (irrigation, fill station)

During a brainstorming workshop with the District, specific reuse alternatives to be studied will be discussed to ensure that already defined alternatives are included.

Criteria

During the criteria discussion workshop, the proposed criteria will be discussed with the District to determine which criteria are most important. A criteria decision matrix will be prepared to document the results of the workshop.

Comparison

The potential uses of the recycled water will be studied including the required level of treatment. The alternatives shown in the 2010 recycled water facilities planning report will be updated to include new technology to determine the most cost-effective treatment method.

To determine the feasibility of a particular treatment method, a pilot study may be completed or samples may be analyzed. For example, jar testing may be completed to determine the feasibility of coagulation and filtration if that was a preferred alternative. If membrane treatment was a preferred alternative, then samples may be taken to determine what pretreatment may be needed for the water.

The feasibility study will document the following items at a minimum.

- What level of treatment and where plant would be located
- Expected permitting requirements
  - Reuse permitting
  - Coastal commission permitting
  - Planning and building permitting
- Capital and operating cost including an estimate of potential purchases of land

- Energy use
- Benefits to stakeholders to assist in deciding which alternative may be more competitive for grant funding
- Potential recycled water users for non-potable reuse
- Operation and maintenance access
- Compatibility with current and future adjacent land uses and aesthetic options
- Coordination with other utilities
- Environmental impact
- Land ownership and easement constraints
- Site constraints
- Constructability
- Roadmap of how to get from where the District is currently to implementing longer-range reuse alternatives such as direct potable reuse.
    - The study will document reuse options that may happen now such as a fill station while pursuing longer-term reuse goals
    - Show milestones necessary to meet long-term goals

The study will include a matrix comparing the alternatives. Using criteria agreed upon with the District, the alternatives will be compared. A draft memorandum will be prepared for the District's review. A workshop will be held to discuss the draft memorandum.

Meetings	• Brainstorming Workshop with District (virtual, 1.5 hours) • Criteria Discussion Workshop (virtual, 1.5 hours) • Draft Feasibility Study Workshop (virtual, 2 hour)
Deliverables	• List of proposed ideas (pdf) • Decision Criteria Matrix (pdf) • Draft Feasibility Study (pdf)

Task 2.4 Final Feasibility Study

Following the receipt of the District's comments on the Draft Feasibility Study, ENGINEER will address all District comments, prepare, and submit the Final Feasibility Study to the District. The preferred project or combination of projects will be identified in the final memorandum.

Meetings	• Final Study Workshop (virtual, 1.5 hours)
Deliverables	• Final Feasibility Study (pdf)

SCHEDULE

After receiving notice to proceed and all information from the District, the draft feasibility study will be ready within 4 months.

RATES AND BUDGET

Payment for the scope described above will be on a Time and Expense basis and invoiced in accordance with the Hourly Wage Rates in the following table.

Subtask	Title	Budget
1	Project Management	$13,908
2.1	Studies for Feasibility Study	$134,748
2.2	Outreach, Meetings, and Tours	$18,487
2.3	Draft Feasibility Study	$112,450
2.4	Final Feasibility Study	$20,384
	Project Total Budget	$299,977

Classification	Title	Hourly Rate
AA1	Administrative Assistant	$81.00
AA2	Senior Administrative Assistant	$114.00
E0	Engineering Assistant	$114.00
E1	Staff Engineer	$143.00
E2	Associate Engineer	$175.00
E3	Project / Structural Engineer	$197.00
E4	Senior Project Engineer / Manager	$228.00
E5	Principal Engineer	$264.00
I1	Field Inspector	$153.00
I2	Senior Inspector	$172.00
I3	Supervising Inspector	$191.00
T1	CADD Tech 1 / Drafter/Jr. Technician	$97.00
T2	CADD Tech 2 / Designer/Sr. Technician	$130.00
T3	CADD Tech 3 / Senior Designer	$158.00

Notes:

1. A markup of 10% will be applied to all project related Direct Costs and Expenses.
2. An additional premium of 25% will be added to the above rates for Expert Witness and Testimony Services.
3. Rate effective through December 31, 2023. A 3% increase will be added for any services performed in each year thereafter.

A more detailed hours breakdown is included in Appendix B.

Appendix A – Resumes

Sami Kader, PE

Principal

Education	Years of Experience	Registration	Memberships
M.S. – Civil/Environmental Engineering, University of Washington (1995) B.S. – Civil/Environmental Engineering, University of California, Davis (1993)	16 years with the firm/ 28 years total	Registered Civil Engineer: Arizona - 30012 California - C61534 Utah – 8169064-2202	WEF AZWA

Mr. Kader is a civil/sanitary design and construction engineer with 29 years of experience in water, wastewater, and conveyance projects. He has worked as a project manager, design manager and project engineer for large and small design projects as well as a resident engineer for large and s mall construction projects. His extensive construction administration experience provides him with a real world practical knowledge of the application of design documents and details during construction and provides insight in the creation of constructible, practical designs which accomplish the intended engineering function with efficiency in both construction and operation. Sami's construction administration experience also provides him with a background in claims avoidance and assists in creating plans and specifications which will minimize confusion and claims (and therefore controlling overall project costs) during bidding and construction.

Representative Project Experience

Sharon Heights Golf Club Water Reclamation Facility (WRF) - Menlo Park, CA (Design/Permitting) The project involved the design and construction of a MBR plant at the Sharon Heights Golf Club that produces Title 22 recycled water for use on the landscaping. Influent for the plant is pumped from a new pump station and forcemain to the plant. The project included the civil and yard piping design, permitting the WRF and pipeline including complying with the ISMND, writing the Title 22 WRF engineering report, and assisting with the SWPPP, Caltrans encroachment permit, County encroachment permit, and City encroachment permit. Mr. Kader was the Principal/Project Manager in Charge.

Hawaii Water Service Kukio Condition Assessment, Critical Asset Repair Project, and Preliminary Design – Kukio, HI 2018 (Condition Assessment/Preliminary Design) Condition assessment of the Kukio WWTP and completed an effective end-of-life assessment for every asset within the plant operation. Coordination of the replacement of critical equipment within a concise timeframe to remedy existing operational issues while ensuring continued plant operation. A preliminary design was completed for the WWTP upgrade, including critical infrastructure repair recommendations, equipment replacement, initial upgrades to continue streamline operation, and recommended upgrades to improve overall operation and maintenance requirements.

Pasatiempo Golf Club Recycled Water Project – Santa Cruz, CA (Assessment/Design/SDC) Mr. Kader was the Sr. Project Engineer that provided an alternative feasibility study and pilot testing, Water Works then performed detailed design and ongoing construction support for the filtration and disinfection treatment systems for the Pasatiempo Golf Club Tertiary Recycled Water System. This facility is designed to initially filter up to 320 gpm instantaneous flow of secondary effluent from the Scotts Valley WWTP Effluent Pipeline to tertiary standards, with the possibility of peak flow treatment up to 700-gpm to take advantage of available secondary effluent during peak flow time periods.

Weaverville Water Reclamation System - Weaverville, CA (Design) Mr. Kader provided project management to the addition of secondary effluent equalization basin, filter influent pump station, tertiary filtration system, and recycled water storage and distribution system (0.5 mgd).

City of Shasta Lake Tierra Oaks Golf Course Reclaimed Pipeline Project –Shasta Lake, CA (Study/Design) Mr. Kader was the Principal in Charge and QA/QC of 2-miles - 12" fusible PVC with proposed 1,200 LF HDD crossing of Moody Creek Ravine; alignment study included analysis of 3 different pipeline, treatment and storage options; hydraulics; pipe selection; utility coordination; ROW and easement procurement; environmental constraints assessment and permitting

City of Shasta Lake Wastewater Treatment Plant Final Design – Shasta Lake, CA (Planning/Design) Mr. Kader was the Project Manager that oversaw the preliminary and final design of upgrades to the existing wastewater treatment plant that included a new influent pump station, retrofit of an oxidation ditch to an equalization basin, new 5-stage Bardenpho aeration basins, a new secondary clarifier, rehabilitation of existing clarifiers, a blower facility, and chemical feed systems. Also included in the project was the BioWin modeling of the advanced wastewater treatment upgrades to the plant.

City of Redding Stillwater Wastewater Treatment Plant Phase 1A/1B Expansion Project - Redding, CA (Design/CM) Mr. Kader was the Principal in Charge of the expansion design from 13.5 to 17.0-mgd PHF. Expansion of the headworks. Addition of two 80-foot diameter secondary clarifiers and associated scum and RAS/WAS pump stations. Addition of two traveling bridge filters. Conversion of the existing 6.2 MG emergency storage ponds to lined secondary effluent equalization basins.

City of Redding Clear Creek WWTP Biolsolids Dewatering and Handling Facility – Redding, CA (Design) Mr. Kader was the Project Manager overseeing the Biosolids Dewatering Building design, complete with mechanical dewatering equipment, truck loading facilities, and all ancillary systems (e.g. polymer feed systems, utility water, HVAC, odor control. Design includes a Trucked Waste Receiving Station, integrated into the Biosolids Dewatering Facility and sharing truck routes.

City of Redding Stillwater Wastewater Treatment Plant Phase 1C Expansion Project Redding, CA (Design) Mr. Kader was the Principal in Charge of the Hydraulic modeling of the future WAS transfer pump station. Design of the future WAS holding tank and jet mixing system. Selection of progressing cavity pumps, mixing pump, and jet header and nozzles. Analysis of potential modes of operation for WAS transfer and the impacts on plant operations. Preparation of construction specifications for the facility. EQ permitting.

City of San Mateo Wastewater Treatment Plant Hypochlorite Tank – San Mateo, CA (Design) Mr. Kader was Principal in Charge for detailed design of a hypochlorite day tank replacement. It included two new sodium hypochlorite tanks, four new sodium hypochlorite feed pumps and piping.

City of Roseville Dry Creek Secondary Clarifier Rehabilitation – Roseville, CA (Design-Assist/CM) Mr. Kader was the Principal in Charge and QA/QC on the City of Roseville's Secondary Clarifier Rehabilitation Project, which entails gutting and rebuilding four 80 ft secondary clarifiers constructed in the late 1970's and early 1980's, replacement of the four corresponding RAS pump stations, replacement of the digester hot water loop, and a new PLC.

Nogales International Wastewater Treatment Plant Upgrade - Nogales, AZ (Design-Build) Mr. Kader served as QA/QC on the Design-Build team selected to design and construct the 14 mgd activated sludge process for the Nogales International Wastewater Plant Upgrade. The existing lagoon plant was upgraded to treat 14 mgd of wastewater coming from Nogales, Arizona and Nogales, Mexico. The project included upgrades to the raw wastewater screening, new grit removal facilities, nitrification/denitrification activated sludge system including anoxic basins, aeration basins and secondary clarifiers and new belt filter press sludge dewatering system.

CINDY BERTSCH, PE

Table of

Senior Project Engineer

Education	Years of Experience	Registration
M.S. – Civil/Environmental Eng. University of CA, Davis (2001)	11 years with the firm / 21 years total	Registered Civil Engineer: California - C65385
B.S. – Civil/ Environmental Eng., University of CA at Davis (2000)		Nevada –18151
		SWPPP QSP

Ms. Bertsch is a civil engineer focusing on municipal water and wastewater planning and design. She has over 21 years of experience that includes performing engineering evaluations; preparing technical drawings, specifications, and cost estimates; completing construction services; facilitating permitting; writing master and facility plans; and hydraulic modeling.

Representative Project Experience

Sharon Heights Golf Club Water Reclamation Facility (WRF) - Menlo Park, CA (Design/Permitting)

The project involved the design and construction of a MBR plant at the Sharon Heights Golf Club that produces Title 22 recycled water for use on the landscaping. Influent for the plant is pumped from a new pump station and forcemain to the plant. Ms. Bertsch assisted with the civil and yard piping design. She also assisted with permitting the WRF and pipeline including complying with the ISMND, writing the Title 22 WRF engineering report, and assisting with the SWPPP, Caltrans encroachment permit, County encroachment permit, and City encroachment permit.

Pasatiempo Golf Club- Santa Cruz, CA (Design/Permitting)

Ms. Bertsch assisted with the design of the treatment system located at the golf course. She updated the Pasatiempo Golf Club's Title 22 Engineering Report for Treatment, Distribution and Use of tertiary recycled water to reflect the treatment being added at the Club. The treatment includes scalping secondary recycled water from the Scotts Valley WWTP and treating it to a tertiary level to use on the golf club.

Meadow Club Recycled Water Supply Analysis - Fairfax, CA (Planning)

Ms. Bertsch was the project manager for the analysis of alternative water supplies for the golf course. Alternatives analyzed included scalping sewage from a sewer collection system and pumping it to a new treatment plant on the golf course or pumping tertiary treated recycled water from San Rafael to the gold course.

Montreux Reclaimed Water Booster Pump Station and Pipeline - Washoe County, CA (Design)

Ms. Bertsch was the Project Manager that designed a 4.3 mile 12-inch reclaimed water pipeline and 2 MGD pump station to provide reclaimed water to a golf course. She completed permitting including negotiating a special use permit and writing an Effluent Management Plan

Elsinore Valley Municipal Water District – Railroad Canyon Water Reclamation Facility: Treatment Title 22 Report -Lake Elsinore, CA (Design)

Ms. Bertsch prepared an update to the Title 22 report to reflect treatment plant changes.

California Water Service Preserve at Millerton WWTP-Friant, CA (Permitting)

Ms. Bertsch assisted with the Title 22 permitting for the new Millerton WWTP.

California Water Service Tesoro Viejo WWTP Support-Madera, CA (Permitting)

Ms. Bertsch assisted with the preparation of a Notice of Intent (NOI) application, preparation of UV Operations Plan, and recycled water administrator permitting for the new Tesoro Viejo WWTP.

Eskaton Roseville, Roseville - CA (Planning)
Ms. Bertsch was the Project Engineer that completed a Title 22 engineering report for recycled water use on site for an age-restricted community.

City of Lincoln Wastewater Treatment and Reclamation Facility – Lincoln, CA (Design/Construction Management)
Ms. Bertsch was the Project Engineer that modeled the internal and City wide recycled water systems, created water balances for effluent disposal, designed a biofilter, designed monitoring stations, and designed an 8 MGD reclaimed water booster pump station. She provided bid and construction services including RFI and submittal review.

Dry Creek Park Recycled Water Irrigation Booster Pump Station - Placer County, CA (Design)
Ms. Bertsch was the Project Manager that designed the storage pond lining, booster pumps and site piping. She coordinated with Placer County, landscape architect, and other civil engineering firms.

California Water Service Dominguez Technical Center Title 22 Report - Carson, CA (Permitting)
Ms. Bertsch prepared a title 22 engineering report for the distribution and use of recycled water at the Dominguez Technical Center. The technical center was converted for recycled water use for common area and median landscape strips irrigation. Report preparation included coordination with West Basin who produces the recycled water.

City of Lincoln Water Distribution System Capital Improvement Plan - Lincoln, CA (Planning)
Ms. Bertsch was the project manager that studied a portion of the City's distribution system including analyzing leak detection results, fire flow capability, and maintenance records to recommend a prioritized capital improvement plan to remedy issues with potable water distribution system.

North Valleys Initiative - Washoe County, NV (Planning)
Ms. Bertsch was the Project Engineer that as part of a reclaimed water regionalization effort, facilitated monthly meetings with seven agencies to plan for future effluent disposal. She developed new reclaimed water design standards that were acceptable to all these agencies. She developed an integrated regional recycled hydraulic water model, a plan including existing and future water balances, and disposal alternatives.

City of Reno and Washoe County Truckee Meadows Service Area/Future Service Area Water, Wastewater, and Flood Management Facility Plan - Reno and Washoe County, NV (Planning)
Ms. Bertsch was the Project Engineer that projected water, wastewater and reclaimed water infrastructure needs for the 2030 and 2095 planning horizons. She managed GIS analysis of the traffic analysis zone land use data for each planning area. She coordinated the work of several engineers, completed the project under budget, and met the tight schedule.

Cinnabar Hills Golf Club - San Jose, CA (Design and Permitting)
Surface water and groundwater are treated at the Cinnabar Hills Golf Club treatment plants. The surface water treatment plant consists of ultrafiltration, granular activated carbon (GAC), and chlorination. The groundwater treatment plant consists of iron/manganese treatment followed by chlorination. The treated surface water and groundwater are combined and stored in a common 250,000-gallon storage tank. Ms. Bertsch prepared an operations plan for both treatment plants to satisfy a requirement imposed by the Division of Drinking Water.

Ben Lee, PE
Project Manager

Education	Years of Experience	Registration	Memberships
M.S. - Environmental Engineering, University of Illinois (2003) B.S. - Civil Engineering, Arizona State University (2001-Cum Laude)	15 years with the firm/ 19 years total	Registered Civil Engineer: Arizona - 47622	AWWA

Mr. Lee has over 19 years of experience in civil and environmental engineering projects that have focused on the planning, optimization and design of water and wastewater treatment facilities and has provided technical assistance, assured inspection data was correctly documented and confirmed compliance to all specifications and procedures as a Project Manager. Mr. Lee has demonstrated his ability to work well with management, engineering, and operations staff in the evaluation, design, and implementation of water and wastewater facilities.

Representative Project Experience

City of Goodyear Brine Management Feasibility Study, Goodyear, AZ (Technical Advisor)
The City of Goodyear uses groundwater as its main water resource with a primary treatment technology of reverse osmosis (RO). RO systems produce a concentrate stream that cause operational and downstream water quality challenges when discharging to wastewater collection systems. This study investigated and compared several RO concentrate treatment and management strategies to provide the City of Goodyear with recommendations for future projects. Treatability, footprint, operability, and cost impacts were considered for three scenarios, including (1) point of origin treatment, (2) centralized treatment, and (3) conveyance of untreated concentrate to the Arizona Public Service (APS) Palo Verde Water Reclamation Facility (WRF). The final option to convey primary concentrate to the PVGS is further discussed in another study. Based on the infeasibility of the point of use and centralized treatment options for the City of Goodyear, it was recommended that further discussion around a regional solution be explored. In addition, it was found that a cost-sharing agreement with Arizona Public Service (APS) to allow disposal of primary concentrate to Palo Verde WRF for centralized treatment at the PVGS could provide an economical solution for concentrate management for the City of Goodyear as well as potential process advantages for APS. Mr. Lee acted as Technical Advisor to provide technical expertise for the feasibility of the three scenarios.

City of Scottsdale Water Campus Advanced Water Treatment Facility, Scottsdale, AZ (Project Manager/Engineer)
The City of Scottsdale Water Campus consists of two facilities (1) the Water Reclamation Plant (WRP) and (2) the Advanced Water Treatment Facility (AWT). The WRP includes a series of typical wastewater treatment processes, including screening, primary clarification, nitrification/denitrification (Modified Ludzack-Ettinger (MLE)), secondary clarification, cloth media filtration and chloramine disinfection. The AWT receives water from the WRP and provides additional treatment for groundwater recharge, including low pressure membrane filtration (MF), reverse osmosis (RO) and stabilization (CO2 stripping and lime addition).

Mr. Lee was the Lead Project Engineer and Deputy Project Manager for the expansion of the AWT, which included the following major design elements: (1) evaluation of compounds of

potential concern (CPCs) and associated treatment process selection, (2) addition of ozone as a primary disinfectant and advanced oxidant for CPC reduction and control, (3) complete rebuild of the MF system to achieve 23.6 mgd permeate capacity, (4) expansion of the RO system from 11.9 to 20.0 mgd using large diameter (16-inch) RO membrane, (5) addition of UV photolysis system downstream of RO for N-Nitroso dimethylamine (NDMA) destruction (6) expansion and design of various pump stations (MF filtrate, Product Water, Neutralization, etc), (7) construction of numerous chemical feed systems (citric acid, sodium bisulfate, sodium hypochlorite, threshold inhibitor, clean in place (CIP), etc), (8) design of support systems, including air scour blowers, compressors, refrigerant dryers, receivers, etc., (9) design of blend control systems to provide TDS and sodium blending capabilities, and (10) design of 8 new vadose zone recharge wells and modifications to 28 existing wells.

City of Prescott Wastewater Collection System and Centralization Roadmpa, Prescott, AZ (QA/QC)

Mr. Lee provided quality assurance and quality control for the analysis, design, and CA services for replacement of the trunkmain conveying wastewater to the Sundog wastewater treatment plant. This included equalization analysis and future facility sizing at Sundog. The exiting line was deteriorated, often surcharged and consisted of a variety of materials resulting from several separate construction projects. This project master planned the material, sizing and alignment for 21,000ft of trunkmain piping that ranged in size from 8-36inch in diameter. Installation conditions were direct bury, jack-and-bore and above-grade. Analysis of pipe material included Reinforced Concrete Pipe (RCP), Vitrified Clay Pipe (VCP), Ductile Iron Pipe (DIP), Polyvinyl Chloride (PVC) – Solid Wall, Polyvinyl Chloride (PVC 0 – Profile Wall, High Density Polyethylene (HDPE) – Solid Wall, High Density Polyethylene (HDPE) – Profile Wall, Reinforced Polymer Mortar Pipe (RPMP), and Glass-Fiber Reinforced Plastic (FRP). The project also included routing analysis, evaluation of parallel/relief sewer options, sewer modeling to confirm sizes and routes, interface with future facilities at Sundog WWTP and coordination with ADEQ permitting.

City of Scottsdale Water Reuse Master Plan, Scottsdale, AZ (Project Manager)

Water Works Engineers provided master planning services for the City of Scottsdale wastewater collection, conveyance, treatment, and effluent management systems. For each of these systems, a review was performed, scenarios were developed and evaluated, and recommendations were made through the planning horizon of 2035. In addition to flow sampling conducted as part of the project, water quality sampling was conducted within the collection system to understand spatial differences in the City's wastewater quality and to evaluate how this could inform operational decisions. The wastewater treatment systems were also evaluated, including expansion needs, cost efficiencies between the City's three treatment plants, and the evaluation of solids treatment at the Water Campus. Effluent management was considered as it relates to reuse and recharge needs as well as long-term water resource planning in the City. Large scale engineered rainfall harvesting opportunities were evaluated as a possible way to increase the available reclaimed water resource.

Joe Riess, PE

Senior Project Engineer/Project Manager

Table of Contents

Education	Years of Experience	Registration	Memberships
M.S. – Civil/Env. Engineering, University of California, Davis (2001/Honors) B.S. – Env. Resources Engineering, Humboldt State University (1998/Honors)	21 years with the firm / 24 years total	Registered Civil Engineer: California – C66413	

Mr. Riess is a water/wastewater process design engineer with over 24 years of experience in large and small civil infrastructure (water and wastewater treatment) projects, including feasibility studies, alternatives analyses, and design for treatment plant upgrades, expansions, modifications, and collection and treatment system monitoring. He has specific experience in treatment process selection, closed-conduit and open channel hydraulic modeling, CADD design, GIS/GPS mapping, and other computer applications for designing and optimizing water and wastewater treatment and distribution systems. Typical duties include client interaction, permit review, technical report preparation and review, cost estimate preparation and review, preparation of contract drawings and specifications, contractor interaction, field visits, inspections, and engineering services during construction. Mr. Riess also has experience implementing large-scale river restoration projects, and coordinating with multiple local, state and federal agencies, stakeholders and landowners.

Representative Project Experience

Gunner Ranch West Water Reclamation Plant – Southern Madera County, CA (Study)
Mr. Riess prepared an analysis of wastewater treatment and disposal alternatives for the 1,135-acre Gunner Ranch West development in southern Madera County that included a comparison of disposal/reuse options including agricultural reuse, landscape irrigation, and percolation disposal.

Weaverville Sanitary District Water Reclamation System – Weaverville, CA (Design)
Mr. Riess prepared preliminary and final designs to upgrade an existing WWTP from secondary to tertiary treatment to provide recycled water to users within the community. The project included the addition of a new secondary effluent equalization basin, filter influent pump station, tertiary filtration system, and recycled water storage and distribution system (0.5 mgd).

Cal Water Service – Tesoro Viejo WWTP Engineering Assistance (Permitting, Startup Assistance)
Mr. Riess provided general engineering assistance to CWS during initial operations of a new WWTP in Madera County, including site visits and punchlists at the end of construction, recommendations for near- and long-term improvements, and design of improvements to support low flow operation. Mr. Riess coordinated final Title 22 permitting for recycled water use, prepared the UV Operations Plan, and is in the process of preparing the Operations Plan for the new WWTP.

City of Redding Layton Lift Station Replacement Project – Redding, CA 2017 (Design/SDC)
The existing Layton Lift Station was a 2.6-mgd peak wet weather flow, 0.45-mgd peak dry weather flow dry pit lift station built in 1962. The lift station discharged into 1650-ft 10” PVC force main. This project was the replacement of the lift station with a new submersible pump lift station located on the opposite side of Layton Rd. Mr. Riess was a Senior Project Engineer on this project.

City of Shasta Lake Wastewater Treatment Plant Final Design – Shasta Lake, CA (Planning/Design)
Mr. Riess was a Senior Project Engineer that oversaw the preliminary and final design of upgrades to the existing wastewater treatment plant that included a new influent pump station, retrofit of an oxidation ditch to an equalization basin, new 5-stage Bardenpho aeration basins, a new secondary clarifier, rehabilitation of existing clarifiers, a blower facility, and chemical feed systems. Also included in the project was the BioWin modeling of the advanced wastewater treatment upgrades to the plant.

Ross Valley Sanitation District Pump Stations 12 &13 Rehabilitation Project – Greenbrae, CA (Planning/Design/SDC)
Mr. Riess provided engineering services on this project which involved the alternatives assessment, preferred rehabilitation method selection, and preliminary engineering analysis for 5-pump / 10 MGD Bon Air (PS12) and Duplex / 0.5 MGD Greenbrae (PS13) Wastewater Pump Station. Alternatives analysis included review, combining and update to the District's SewerCAD and InfoSWIMM hydraulic models to determine the required PWWF capacity for each. Following preliminary engineering assessment, Mr. Riess assisted the final design and construction management of the improvements project.

City of Thousand Oaks Hill Canyon Wastewater Treatment Plant Upgrade – Thousand Oaks, CA (Design)
Mr. Riess provided value engineering assistance and design of several major unit processes to be added or upgraded at the Hill Canyon Wastewater Treatment Plant. He designed a new filter influent pump station, upgrade of the existing filter influent pump station, new rapid mix, flocculation, and coagulation basin, and a polymer storage and feed facility (30 mgd).

Olivehurst Public Utilities District WWTP Upgrade and Expansion – Olivehurst, CA (Design)
Mr. Riess was the Lead Process Engineer and assistant design manager for WWTP expansion from 1.8 to 3.0 mgd ADWF. The project included California Toxics Rule compliance and the following new processes: fine screens, grit chambers, influent pump station, oxidation ditch, secondary clarifier, RAS/WAS pump station, filter influent pump station, cloth media filters, UV disinfection channels, re-aeration basin, chemical storage and feed, effluent pumps and outfall structure (3 mgd).

Tahoe-Truckee Sanitation Agency Water Reclamation Plant expansion and Upgrade – Truckee, CA (Design)
Mr. Riess was the Lead Process Engineer and Project Manager for advanced WWTP expansion from 7.4 to 9.6 mgd. The project included new primary clarifier, primary effluent flow splitting structure, high-purity oxygen activated sludge basin, liquid oxygen storage, secondary clarifier, sludge flow splitting, tertiary filters, biological nitrogen removal, biological odor control, and centrifuge solids dewatering (9.6 mgd).

Advanced Wastewater Treatment Plant – City of Hayward and Calpine/Bechtel, Hayward, California (Design)
Mr. Riess evaluated and prepared preliminary design and cost analysis for an advanced wastewater treatment plant. Evaluated alternative schemes to treat secondary effluent to Title 22 reuse standards for use as cooling water in a proposed power generation facility. Treatment processes and associated equipment evaluated included rapid mix, coagulation, flocculation, granular medium filtration, microfiltration, reverse osmosis, copper removal through co precipitation, and solids thickening and dewatering.

Jonathon Roy, P.E.

Civil/Construction Engineer

Education
B.S. – Civil Engineering
Oregon State University

Experience
6 years

Registration
Registered Civil Engineer
California – C92341

Mr. Roy is a Civil Engineer with extensive experience in water infrastructure constructability. In his time at Water Works Engineer's Mr. Roy has contributed constructability analysis and design assistance on 8 potable water tank projects.

Representative Project Experience

City of Roseville West Side Tank and Pump Station Project – Mr. Roy provided design services, constructability review, and construction management services for this project which consisted of two 6 MG pre-stressed concrete tanks, mechanical and yard pipe, and an associated 2 MGD pump station.

City of Millbrae Skyline Tank Project Basis of Design Memo – Mr. Roy provided design services for a new 1.5 MG prestressed concrete tank, site slope stabilization, civil site and yard pipe design. Design elements also include retirement of two existing steel reservoirs and associated yard piping.

Mammoth Community Water District Tank T-5 Rehabilitation Project – Mr. Roy provided inspection services, and construction management assistance for the rehabilitation of the 1 MG steel tank. Rehabilitation included miscellaneous mechanical improvements, blasting and removal of existing coatings, and coating application using an AWWA ICS-1 system.

San Jose Water Company Columbine Reservoir Replacement Project – Mr. Roy assisted with the engineering for 2 5.07 MG concrete tanks including constructability review, and civil site design. This project consisted of complete reservoir replacement, hazardous material abatement, stormwater bio treatment, and grading.

VOMWD Saddle Tank Replacement Project - Mr. Roy assisted in the design of a new steel tank, replacing an existing redwood tank that was destroyed in a wildfire. In addition to the tank, design elements included yard pipe, storm drainage infrastructure, and a dewatering system.

San Jose Water Company Belgatos Reservoir Replacement Project – Mr. Roy provided Construction Management of the complete reservoir replacement, including retirement of existing infrastructure and new mechanical piping, and construction of two 2.37 MG post-tensioned concrete tanks.

San Jose Water Company Cambrian Reservoir Replacement Project Basis of Design Memo – Mr. Roy assisted with the engineering of 2 new concrete tanks totaling 19 MG volume including civil site layout, mechanical pipe, and yard pipe design

San Jose Water Company Idylwild Tank Project – Mr. Roy assisted with the engineering of the new 45,000 gallon steel tank reservoir, a 1200 gpm pump station, and all associated mechanical yard pipe and civil site improvements.

ROUX

PROFESSIONAL PROFILE

Andrew Zdon, P.G., C.Hg., CEG

Technical Director

TECHNICAL SPECIALTIES

Providing services for governmental agencies (federal, state, and local), non-profit and for-profit corporations, and private individuals. Providing services ranging from water resource/supply investigations, impact analyses related to NEPA and CEQA analyses, groundwater modeling, water sourcing investigations, water supply management plans, mine hydrology investigations, minerals remoteness assessments, restoration project management, and environmental investigations.

EXPERIENCE SUMMARY

Mr. Zdon has more than 30 years of experience in a variety of geology and hydrogeology-related projects. He is a California Professional Geologist, Certified Hydrogeologist and Certified Engineering Geologist. Mr. Zdon is a recognized subject matter expert in numerical groundwater flow modeling and has been an instructor at California State University, Los Angeles in Groundwater Models and Management (1995).

Mr. Zdon was also appointed in 2013 by the Inyo County Superior Court as Watermaster for a surface water system in the Owens Valley. His specialties include basin analyses and relationships with spring systems, numerical groundwater modeling including, flow, groundwater/surface water interactions including spring flow, contaminant transport and dual-phase flow in both basin fill and fractured rock environments. Investigations in these areas can be in support of CEQA/NEPA analyses, water resource development evaluations, or providing third party review, supervision of UST identification, abandonment and removal.

He has served as an expert witness on many cases and has provided both depositions and court testimony. Mr. Zdon was appointed to serve on the first Technical Advisory Committee for the newly combined California Board for Engineers, Land Surveyors and Geologists. He also received Certificates of Commendation and Appreciation for his volunteer service as a Subject Matter Expert for the former California Board for Geologists and Geophysicists.

CREDENTIALS

B.S., Geology, Northern Arizona University, Flagstaff, Arizona, 1984

State of California, Professional Geologist (No. 6006)

State of California, Certified Engineering Geologist (No. 1974)

State of California, Certified Hydrogeologist (No. 348)

State of Arizona, Registered Geologist (No. 33683)

State of Utah, Professional Geologist (No. 11907683-2250)

Assessment, Use and Management of Groundwater in Areas of Limited Supply, 2006, Groundwater Resources Association of California

Introduction to ArcGIS9 and Environmental Applications of GIS, 2005, Northwest Environmental Training

Application of Risk Assessment for Environmental Decision Making at Contaminant Release Sites, 2005, University of California, Riverside – University Extension

Conceptual Site Models and the Data Necessary to Make Technical Decisions Regarding Cleanup and Site Closure, University of California, Riverside – University Extension

Model Calibration and Uncertainty Analysis Using PEST, 2003, Groundwater Resources Association of California

KEY PROJECTS

Environmental Forensics related to Desert Riparian Habitats. Principal investigator on forensic evaluations of spring water sources for multiple locations in Mono, Inyo, San Bernardino and Kern Counties, California. Methodologies used in these analyses have included stable isotope analysis of waters, water age-dating (using tritium and carbon-dating methods), noble gas analysis, general chemistry, and remote sensing techniques inclusive of Landsat imagery time-series analysis associated with Normalized Difference Vegetation Index (NDVI) signals, and changes in NDVI over time. The results of these studies have been published in the peer-reviewed journals Hydrology, Environmental Forensics and the International Journal of Water Resources and Environmental Management.

Spring Survey, Mojave and Sonoran Deserts, San Bernardino, Los Angeles, Kern and Inyo Counties, California. Principal investigator for Mojave Desert-wide spring survey for the Barstow, Needles and Ridgecrest U.S. Bureau of Land Management Districts. Also included lands owned by project partner land trusts. Work consisted of records search (inclusive of technical data, water rights information, BLM records search, and cultural historic information), field inspection of more than 300 springs, and preparation of a comprehensive report and catalog of springs that serves as the most comprehensive and temporally consistent investigation of springs ever to occur in the region. Field data included refining location information, field water quality parameters and flow, collection and analysis of water samples for stable isotope analysis, identification of vegetation present including invasive species, identification of wildlife use including use by non-native animals, types of spring disturbance, and general geological observations. Subsequent work has included extensive isotopic characterizations including stable isotope, tritium and radiocarbon analyses to evaluate regional aquifer connections with springs and working cooperatively with biologists conducting vegetation mapping and environmental DNA analyses on selected springs. This project was reported on in several publications including USA Today.

Technical Expert, Pine Valley and Wah Wah Valley Groundwater Basins, Utah. Serving as technical expert to the Beaver County Board of Commissioners regarding proposed groundwater export project by the Central Iron County Water District. The project proposes to export groundwater from proposed wells on public lands managed by the U.S. Bureau of Land Management to

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alleviate overdraft and related subsidence issues in the Cedar City area. Work involves evaluating the effects of proposed groundwater production on springs and other resources in Beaver County, and to prepare comments to upcoming environmental impact statement.

Technical Expert, Orange County Groundwater Basin, California. Served as an expert witness and provided deposition regarding hydrogeologic conditions and numerical groundwater flow and transport modeling associated with the shallow, principal and deep aquifers of the Orange County Groundwater Basin. Focus was on groundwater flow, Irvine Ranch Water District well field-caused hydraulic gradient changes, and the potential for shallow contamination to reach the principal and deep aquifers.

Technical Expert – Hydrogeology of Proposed Yucca Mountain Nuclear Waste Repository, Nevada. Technical expert representing the County of Inyo, California relating to potential impacts to water resources in the County of Inyo including downgradient groundwater/spring water users in the communities of Shoshone and Tecopa and ecological resources associated with springs and the federally designated Amargosa Wild and Scenic River and Death Valley National Park. Work has included reviewing existing numerical groundwater flow and transport modeling for the region, and running the carbonate-aquifer model (which covers portions of California, Nevada and Utah) developed by the U.S. Geological Survey to evaluate the effect of pumping related to Southern Nevada Water Authority water rights and applications on vertical hydraulic gradients beneath Yucca Mountain and preparation of comments to Supplemental Environmental Impact Statement for Groundwater (prepared and submitted during 2015).

Project Management and Water-Supply Well, Feather River Basin, Plumas County, California. Project management and hydrogeological services related to a restoration of the historic Heart K Ranch project along Indian Creek in the Feather River headwaters for the Feather River Land Trust. Work included organizing hydrogeological (including production well drilling) and engineering and irrigation subcontractors to complete infrastructure for the project in a brief timeframe (less than six months). Successful siting of the well resulted in yield more than two times greater than client expectations.

Groundwater Recharge Operations, San Joaquin Valley, California. Technical and operational review of groundwater recharge/replenishment operations throughout the San Joaquin Valley, California. Work included identifying all non-private groundwater replenishment facilities in the San Joaquin Valley, providing technical review of operations including periodicity of use, spreading-basin geometry, and reviewing surrounding environment (including potential liabilities) associated with the potential use of the operations as water-bird habitat.

Hydrogeologic Evaluation, Amargosa River Basin, California and Nevada. Principal in Charge and project manager for ongoing basin-wide investigation of the resources of the California-portion of the Amargosa River basin. Investigations have ranged from baseline data collection efforts to wide-ranging geochemical investigations (including isotope studies) of groundwater issuing from springs, from the Amargosa River, and from existing wells. Results have been groundbreaking and have resulted in ongoing reevaluation of the conceptual model of this part of the basin (more than 2,000 square miles) that had been held for nearly 50 years. Being a spring-fed river, the investigations along the Amargosa River highlight the evaluation interactions between surface water and groundwater. These data have been incorporated into multiple peer-reviewed journal articles and in U.S. Geological Survey report on the Lower Amargosa River Valley (Scientific Investigations Report 2018-5151).

Hydrogeologic Characterization and Flow Modeling, Big Valley Groundwater Basin, Lake County, California. Conducted numerical modeling analysis of the Big Valley Groundwater Basin (inclusive of Soda Bay) in Lake County, California as part of environmental review/feasibility study related to using the Kelseyville water system as an alternative water supply review for the Soda Bay area. The Soda Bay area is in complex volcanic terrain and has been previously served primarily by surface water from Clear Lake which is seasonally problematic due to water quality issues. Additionally, the numerical modeling provided estimates of streamflow depletion in Kelsey Creek due to groundwater pumping addressing concerns related to the Clear Lake Hitch, a California-state listed threatened species fish (also under federal review).

Hydrogeologic Characterization and Flow and Transport Modeling in Volcanic Terrain, Mono County, California. Served as expert witness and manager of environmental activities at 7,000-gallon gasoline release that occurred in faulted, volcanic terrain upgradient of a town water-supply well field. Work conducted at the site also included characterization of rock units including the use of rotary drilling and oriented-core drilling, surface and down-hole geophysical surveys, and extensive vapor and groundwater sampling. Developed a conceptual model and follow-up numerical groundwater flow and transport model to evaluate potential timing and magnitude of impacts to down-gradient town water-supply wells and associated remediation scenarios both to evaluate on-site remedial effectiveness and risk reduction associated with water supply.

Well Siting along the San Andreas Fault Zone, Lake Elizabeth area, Los Angeles County, California. Provided technical review and recommendations for future well siting in the Lake Elizabeth area. The Lake Elizabeth area is situated along the San Andreas Fault Zone, the lake being a manifestation of the fault zone (sag pond). Groundwater in this complex area is highly compartmentalized, and differences in well yields and groundwater quality can vary substantially in short distances. This work successfully informed the Lake Elizabeth Mutual Water Company in new well siting after previous well construction attempts.

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Watershed Assessment, Flow Modeling and Impact Analysis for Potential Well-field, Sierra Nevada, Mono County, California. Consultant to Mammoth Mountain Ski Area in a joint project with the Mammoth Community Water District regarding water resources issues associated with a proposed land transfer with the Inyo National Forest, and the potential development of a water supply in an eastern Sierra watershed. Work involved developing conceptual model and associated preliminary numerical groundwater flow model of an eastern Sierra watershed, conducting field investigations to evaluate hydrogeologic parameters (including aquifer testing of potential water-supply wells) identified to be sensitive in the numerical model, and finalizing the numerical groundwater flow model through updating parameters and boundary conditions based on data obtained from the field investigations and performing a transient calibration. The final numerical model was used to evaluate potential groundwater impacts of the proposed project.

Seepage Modeling, Multiple Projects, New Zealand. Provided technical oversight for finite element groundwater seepage modeling (SEEP/W) and hydrogeologic evaluation of tailings mitigation, Coeur Gold Golden Cross Mine Tailings Impoundment, New Zealand. Modeling was conducted to evaluate practicability of tailings dam dewatering schemes. Additionally, conducted seepage modeling to evaluate effects and feasibility of dewatering for the Mangare Waste Treatment Plant Upgrade. This would ultimately lead to the biggest environmental restoration program to be undertaken in New Zealand including removing 500 hectares of oxidation ponds (the subject of the modeling) and restoring 13 kilometers of coastline.

Numerical Flow Modeling, Owens Valley, Inyo County, California. Hydrogeologic consultant for the Owens Valley Indian Water Commission through the development of hydrogeologic data gathering, development of conceptual models for the Lone Pine Reservation, Big Pine Reservation and Bishop Reservation areas of the Owens Valley, and development of numerical groundwater models for each of these areas. The models developed provide these Paiute/Shoshone tribes with tools to evaluate the impacts on local reservations of water resource activities conducted by outside agencies. This U.S. Geological Survey – peer reviewed modeling effort provided strong water management tools for the tribal community of the Owens Valley.

Water-Supply Feasibility Study, Inyo County, California. Principal in Charge for hydrogeologic services associated with a feasibility study for a potable water supply and fire-flow system for the community of Tecopa in Inyo County, California. Work was conducted under a California Department of Water Resources grant (Integrated Regional Water Management Planning – Proposition 84). Waters in the area typically have elevated dissolved solids and metals such as arsenic and residents routinely obtain water from distant sources. The study was being conducted under a grant from the California Department of Water Resources, and because of this work, a grant to implement the water system has been received and the facility constructed and operational.

Water Resource Assessments, Mono County, California. Served as consultant to Mono County conducting groundwater availability assessments for several Mono County communities including: Antelope Valley (West Walker River); Mono City and Lee Vining (Mono Basin), Crowley and the Tri-Valley areas (Owens River). Work included conducting field reconnaissance activities, developing groundwater recharge estimates, evaluating local groundwater budgets, identifying potential future impacts due to regional growth, water quality issues, etc. He has also provided hydrogeologic support to the County of Mono with respect to reviewing and evaluating groundwater modeling conducted to evaluate potential impacts caused by expansion of a geothermal plant in Mono County.

Groundwater-Supply Feasibility Study, San Mateo County, California. Currently conducting a feasibility/well siting study related to the development of a groundwater supply for the La Honda area in the northern Santa Cruz Mountains of San Mateo County. The area has relied on surface water for its water supply and groundwater is being considered as a supplemental source of water for the San Mateo County Community Service Area No. 7 water system.

Vineyard Water Resource Assessment, Lake County, California. Served as consultant to Shannon Vineyards to evaluate water supply for existing and future development of vineyards in Lake County, California. Investigation identified a previously unidentified aspect to the hydrologic conceptual model indicating that more groundwater may be available to support future development and potentially alleviate long-term concerns for local impacts to springs. Additional data collection and analysis was recommended to support these new findings.

Well Siting Analysis, Los Angeles County, California. Conducted analyses including fracture trace analysis to identify potential production well sites for the Elizabeth Lake Mutual Water Company. The area of the well will be within the trace of the San Andreas Fault Zone, resulting in a complex fracture analysis and review of existing of wells and springs.

PUBLICATIONS

Zdon, A., Love, A.H. (2020). "Groundwater Forensics Methods for Differentiating Local and Regional Springs in Arid Eastern California, USA." Environmental Forensics. https://doi.org/10.1080/15275922.2020.1836075.

Parker, S.S., Zdon, A., Christian, W.T., Cohen, B.S., Mejia, M.P., Fraga, N.S., Curd, E.E., Edalati, K., and Renshaw, M.A. (2020). "Conservation of Mojave Desert Springs and Associated Biota: Status, Threats and Policy Opportunities." Biodiversity and Conservation. https://doi.org/10.1007/s10531-020-02090-7.

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Zdon, A. (2019). "An inventory of operational and planned groundwater recharge basins in the San Joaquin Valley, California." Prepared for Point Blue Conservation Science. https://data.pointblue.org/apps/data_catalog/dataset/california-ecological-data-layers.

Zdon, A., Rainville, K., Love, A.H., Buckmaster, N., and Parmenter, S. (2019). "Identification of source-water mixing in the Fish Slough spring complex, Mono County, California, USA." Hydrology 2019, 6. 26. https://www.mdpi.com/2306-5338/6/1/26.

Love, A.H., Zdon, A. (2018). "Use of Radiocarbon Ages to Narrow Groundwater Recharge Estimates in the Southeastern Mojave Desert, USA." Hydrology 2018, 5, 51. https://www.mdpi.com/2306-5338/5/3/51.

Zdon, A., Davisson, M.L., and Love, A.H. (2018) "Understanding the source of water for selected springs within Mojave Trails National Monument, California." Environmental Forensics, Volume 19, No. 2, 99-111. https://doi.org/10.1080/15275922.2018.1448909.

Zdon, A. (2017). "Water in the Desert? A Survey of Springs 2015-2016." Desert Report: News of the Desert from Sierra Club California and Nevada Desert Committee. June.

Potter, Christopher, Zdon, A., and Weigand, J. (2017) "Monitoring Springs in the Mojave Desert using Landsat Time Series Analysis. International Journal of Water Resources and Environmental Management, Volume 8, No. 2. December.

Zdon, A., Davisson, M. L., and Love, A.H. (2015) "Testing the Established Hydrogeologic Model of Source Water to the Amargosa River Basin, Inyo and San Bernardino Counties, California." Environmental forensics, v. 16,.4 pp. 344-355. https://doi.org/10.1080/15375922.2015.1091406.

Zdon, A. (2014) "Wading Deep: The Importance of Hydrological Monitoring." California Council of Land Trusts, Conservation Frontiers, Volume 5.3, July. 8 p.

Traylor, R.L., Zdon, A., Zawadki, A. (2001) "Identification of Areas for Potential Recharge Projects, New Well Siting Areas and Basin Source Water Assessment." Proceedings of the XXXI International Association of Hydrogeologists Congress Munich, Germany, 10-14 September 2001: New Approaches Characterizing Groundwater Flow. Pages 657-661.

Brothers, K., Tracy, J., Kaufmann, R. F., Stock, M., Bentley, C., Zdon, A., and Kepper, J. (1992) "Hydrology and Interactive Computer Modeling of Ground and Surface Water in the Lower Virgin River Valley, primarily in Clark County, Nevada." Las Vegas Valley Water District, Cooperative Water Project, Series Report No. 1, 90 p.

Brothers, K., Buqo, T. S., Tracy, J., Kaufmann, R. F., Stock, M., Bentley, C., Zdon, A., and Kepper, J., 1993, Hydrology and steady state ground-water model of Cave Valley, Lincoln and White Pine Counties, Nevada: Las Vegas Valley Water District, Cooperative Water Project, Series Report No. 11, 48.

Zdon, A., ed. (1991) "Geology of the Las Vegas Region." American Association of Professional Geologists, Nevada Section, 1991 Field Trip Guidebook. Las Vegas, Nevada.

PROFESSIONAL AFFILIATIONS

National Ground Water Association

Geological Society of America

Society for Mining, Metallurgy and Exploration

SPEAKING ENGAGEMENTS

Edalati, E., Yuerong, M., Shih, B., Curd, E., Renshaw, M., Mejia, M.P., Wayne, R., Fraga, N., Zdon, A., Parker, S. (2020). "Environmental DNA and Biodiversity Assessment of Mojave Desert Springs." 2020 California Aquatic Bioassessment Workgroup and California Society for Freshwater Science Meeting. October 13.

Palacios, M., Edalati, K., Curd, E., Renshaw, M., Fraga, N., Zdon, A., Wayne, R., Parker, S. (2020). "Assessing Biodiversity of Mojave Desert Springs using Environmental DNA, Botanical Surveys, Geology and Ecoregion." Poster Presentation, 2020 California Aquatic Bioassessment Workgroup and California Society for Freshwater Science Meeting. October 13.

Rosen, S., Zdon, A. (2020). "PFAS in Eastern California." Webinar presented to Transition Habitat Conservancy and regional agencies and NGOs. May 12.

Zdon, A. (2019) "Current efforts for Baseline Understanding of Groundwater-dependent Ecosystems in Arid California," Oral Presentation, Los Angeles County Bar Association-Environmental Law Section Spring Symposium, Los Angeles, California (April 12, 2019).

Zdon, A. (2019) "Increasing our Understanding of Eastern California Springs: the Amargosa and Beyond." Oral Presentation, University of California White Mountain Research Station public lecture series, Bishop, California. (March 12, 2019).

Zdon, A. (2018). "Water – California's most precious resource," Oral Presentation, Oakland Museum of California, Oakland, California. (November 5, 2018).

Zdon, A. (2017) "Hydrologic Processes in a Shifting Climate in the Arid Southwest," Oral Presentation, 2017 University of California, Davis – California Department of Water Resources – Point Blue Conservation Science Riparian Summit, Davis, California. (October 18, 2017).

Zdon, A. (2017) "Spring Surveys for Land Trusts - Lessons Learned from a Regional Survey," Oral Presentation, 2017 California Council of Land Trusts,

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2017 Land Conservation Conference, University of California, Davis (March 2017).

Davisson, M.L., A. Zdon (2015) "Constraints on the Recharge Sources, Flowpaths, and Ages of Groundwater in the Amargosa River Valley", Oral Presentation with Abstract, 2015 Jim Deacon Memorial Devil's Hole Annual Workshop, Ash Meadows National Wildlife Refuge, Nevada. (May 7, 2015).

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Zdon, A. (2013) "In the Footsteps of Early Researchers: Evolving Hydrologic Understanding in the California Desert." The 2013 National Ground Water Association Summit: The National and International Conference on Groundwater, San Antonio, Texas. June 1, 2013. Oral Presentation with Abstract.

Love, A.H., Zdon A., Philipp, J.R. (2013) "Testing the Established Regional Hydrologic Conceptual Model in the Amargosa River Basin, California and Nevada." The 2013 National Ground Water Association Summit: The National and International Conference on Groundwater, San Antonio, Texas. June 1, 2013. Oral Presentation with Abstract.

Zdon, A. (2013) "Water: The Missing Element in Land Conservation." The 2013 California Land Conservation Conference, California Council of Land Trusts, Sacramento, California. March 19, 2013. Concurrent Session leader and presenter.

Zdon, A. (2013) "Baseline Hydrologic Investigation and Monitoring, Amargosa River Wild and Scenic River System, California and Nevada." The 2013 California Land Conservation Conference, California Council of Land Trusts, Sacramento, California. March 19, 2013. Oral presentation.

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Andrew Zdon, P.G., C.Hg., CEG
Technical Director

EXPERT TESTIMONY AND RETENTIONS

Laubro No 1 LLC and against City National Bank as Trustee of the Herbert and Helen Kelly Trust, Wells Fargo Bank NA as Trustee of the Robert F. Faust Trust, et.al., in Superior Court for the State of California, County of San Diego. Expert Report, Deposition, Court Testimony. (2018).

Eddie Falzon and S. Jo Falzone v. Wack, Casey, Carey Williams, et.al., in Superior Court for the State of California, County of Inyo. Physical Solution, appointment as Watermaster (Representative of the Court), 40-Acres Water System.

Orange County Water District v. Sabic Innovative Plastics US LLC; Brenntag West, Inc., Gallade Chemical, Inc.; et.al., In the Superior Court for the State of California in and for the County of Orange, Case No. 30-2008-00078246-CU-TT-CXC, Deposition (2013).

State of California Energy Resources Conservation and Development Commission, Application for Certification for the Hidden Hills Solar Energy Generation Project; Intervenor Amargosa Conservancy, Docket No. 11-AFC-2, Declaration and Oral Testimony (2013).

Little Lake Ranch, Inc. v. County of Inyo Board of Supervisors, Inyo County Planning Commission, Inyo County Planning Department, Coso Geothermal, Inc., Superior Court of the State of California, County of Inyo. Expert Report (2009).

Southern California Gem Industries v. Roth, in the Superior Court of the State of California, County of San Diego. Expert Report (2009).

Garry N. Holdgrafer, et.al., v. Unocal Corporation, A Delaware Corporation, Union Oil Company of California, Unocal California Pipeline Company, 76 Products Company, Superior Court of the State of California, County of San Luis Obispo. Deposition and Court Testimony (2003).

Kvaerner Aronson, Inc. v. Mammoth Mountain Ski Area, Mammoth Mountain Ski Area v. EMCO Wheaton, Inc., In the Superior Court for the State of California, County of Mono. Deposition (2003).

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JAMES A. BIANCHIN, P.G., C.E.G.

BAJADA Geosciences, Inc.

Jim.bianchin@bajadageo.com

CA: PG 5169, CEG 1644; OR: CEG 1989

Jim Bianchin is a professional geologist and certified engineering geologist in California and Oregon. He has over 35 years of experience working on difficult and complex public works, critical facility, and large private projects, where creative solutions and thinking "out-of-the-box" are required.

Education

- B.A. Geology, Humboldt State University;
- Post BA Courses in Geology & Business, University of California at Santa Barbara;
- Short Courses: Earth Slope Stability, Seismic Hazards Evaluations, Rock Slope Stability, Liquefaction, Erosion Control, Pipeline Design.

Licenses & Affiliations

- Professional Geologist – California & Oregon;
- Certified Engineering Geologist – California & Oregon;
- Association of Engineering Geologists (AEG)

TECHNICAL CAPABILITES

- Landslide and slope stability studies;
- Rock slope stability and discontinuity evaluations;
- Pipelines (E' evaluations) and directional drilling/microtunneling/trenchless projects;
- Water & wastewater treatment plants, schools, hospitals, and critical facilities;
- Shallow and deep foundation systems;
- Roadway and bridge studies (materials and foundation reports);
- Reconnaissance and detailed geologic mapping;
- Fault location and paleoseismic studies;
- Deterministic and probabilistic seismicity evaluations;
- Regional liquefaction evaluations.

PROJECT EXPERIENCE

Relevant Highlights

Over the last 10 years, geotechnical evaluations and site characterization for small- to large-diameter tanks has been one of the Jim's primary specialties. Over the last 6 years, he has managed geotechnical studies on over 21 tanks that have ranged in volume from 100,000 gallons to over 15.6-million gallons. The following table provides information on some of those tanks.

RECENT GEOTECHNICAL STUDIES FOR TANKS

Tank Name	Volume (gallons)	Shell Type	Location
Cambrian Station	7.4- & 11.5-million	Prestressed Concrete	Campbell
Westside Tanks	Two 6-million	Prestressed Concrete	City of Roseville
Columbine Station	Two 6.6-million	Prestressed Concrete	Santa Clara County
Dutard Heights	250,000	Bolted Steel	Santa Clara County
Belgatos Station	Two 3.5-million	Prestressed Concrete	Los Gatos
Santa Rosa	417,500	Welded Steel	Los Gatos
Vickery Avenue	2- & 5-million	Prestressed Concrete	Saratoga
Overlook	2-million	Prestressed Concrete	Los Gatos
McKean	1-million	Welded Steel	San Jose
Fairfax Tanks	Two 4-million	Prestressed Concrete	Marin County
Big Basin	391,000	Bolted Steel	Santa Clara County
Cahalan	8.8-million	Welded Steel	Santa Clara County
Crothers	411,000	Welded Steel	Santa Clara County
Dow No. 2	15.6-million	Welded Steel	San Jose
Lower Northwood	1-million	Welded Steel	Milpitas
Phillips	500,000	Welded Steel	Los Gatos
Picea	250,000	Welded Steel	Santa Clara County
Pleasant Vista	203,000	Bolted Steel	Santa Clara County
Tybaldt	140,000	Welded Steel	Santa Clara County
Vista del Almaden	100,000	Welded Steel	Santa Clara County
Webb Canyon	500,000	Welded Steel	Santa Clara County

As noted above, those tanks consisted of bolted or welded steel and pre-cast concrete, some of which were partially buried. Many of those studies were in areas having known slope stability issues, expansive soils, and were located proximal to relatively large active faults, such as the Hayward and San Andreas faults.

In addition, Jim was the manager of geotechnical services and responsible engineering geologist for the design of the Central Coast Water Authority's components of the Coastal Aqueduct Extension (Phase II) of the California State Water Project. This project included 73 miles of large-diameter flexible pipeline, three 2-million-gallon tanks, a 40-million gallon-per-day water treatment plant, a pump station, a scour evaluation of the pipeline crossing of the Santa Maria River, and a microtunnel alignment beneath the Santa Ynez River.

Levees, Treatment Plants and Processing Facilities

Blue Lake Levee Evaluation, Humboldt Co, CA;
Jacobs Avenue Levee, Eureka, CA;
Redwood Creek Levee Evaluation, Orick, CA;
Olney Creek Levee, Redding, CA;
City of Shasta Lake WWTP Expansion project;
Clear Creek WWTP Levee Certification Study, Redding, CA
Clear Creek WWTP Facilities Expansion, Redding, CA
Sierra Army Depot, Herlong, CA;
Battle Mountain WTP – Battle Mountain, NV;
Dominguez Hills Well No. 203 – Carson, CA;
Burney Creek Floodwall Study, Shasta County;
Stillwater WWTP Expansion, Redding, CA
City of Fort Bragg Newman Gulch Reservoir;
Port Orford Wastewater Treatment Plant;
Willows Wastewater Treatment Plant Expansion;
Fall River Mills Wastewater Facility Modification;
Coastal Aqueduct Extension (Phase II) CA Water Project;
Polonio Pass Water Treatment Plant;
Santa Barbara El Estero Wastewater Treatment Plant;
Exxon's Las Flores Oil Processing Facility;
Unocal's Platform Irene Oil Processing Facility;
Calleguas Filtration Plant;
Santa Barbara Desalination Facility;
MWD's Jensen Filtration Plant;
Guadalupe Wastewater Treatment Plant;

Tanks, Pipelines, and Pump Stations

Idylwild Station, Santa Clara County, CA;
Dutard Tank & Pump Station, San Jose, CA;
Cambrian Tanks, San Jose, CA;
Westside Tanks, City of Roseville, CA;
Vista de Almaden Tank, Santa Clara County, CA;
Columbine Station, San Jose, CA
Vickery Tank Replacement Project, Saratoga, CA
Overlook Tank, Los Gatos, CA;
12 large diameter steel tanks, San Jose Water Co.
McKean Tank and Pipeline, San Jose, CA;
Belgatos Reservoir, Los Gatos, CA;
Santa Rosa Tanks, Los Gatos, CA;
Franciscan Station, San Jose, CA;
Cambrian Station, Campbell, CA;
Bay Point Sewer Replacement, Contra Costa County, CA;
San Mateo County Sewer Rehabilitation Project;
Calgren Biogas Pipelines (32 miles), Tulare County, CA
City of Redding's North Market St. HDD project
City of Redding's North Market St. Lift Station
City of Redding's Jenny Creek Sewer Pipeline & Lift Station;
City of Redding's Mistletoe Sewer Replacement;
City of Redding's San Francisco Sewer Replacement;
City of Redding's Lake Redding Interceptor Pipeline;
City of Redding's Butte Street Water Pipeline;
Stillwater Business Park Sewer Pipelines, Shasta County, CA;
Coastal Aqueduct Extension (Phase II) of the CA State Water Project;
City of Eureka's Martin Slough Conveyance Project;
City of Port Orford's Wastewater Outfall Project, OR;
Nacimiento Water Supply Project, San Luis Obispo Co.;
Whale Rock Pipeline Vulnerability Assessment, SLO Co.;
All American Pipeline Project, multiple counties, CA;
Westside Conveyance Pipeline, Santa Barbara, CA;
Exxon Company USA's Las Flores Oil Storage Tanks;
Texaco Transportation Corp's Gaviota Storage Facility;
Carpinteria Valley Water District's Water Storage and Conveyance Project, Santa Barbara County, CA;
Sakhalin Island Feasibility Study, USSR;
Camarillo Wastewater Treatment Plant

Noël J. Bush, P.G., C.HG.
Project Manager / Project Geologist

Education

M.S., Geology, California State University, Sacramento, 2006
B.S., Geology, California State University, Sacramento, 2000

Professional Registrations

Registered Professional Geologist: California
Certified Hydrogeologist: California

Distinguishing Qualifications

- Characterization of soils and waste for various contaminants including hydrocarbons, PCBs, heavy metals (including elemental mercury) related to aging equipment and other long-term facility operations
- Characterization and assessment of PFAS constituents in groundwater
- Surface water quality monitoring and assessment
- Groundwater and soil quality assessment, monitoring, pilot testing, and remediation
- Evaluation of fate and transport of contaminants in the subsurface
- Evaluation of natural attenuation of contaminants for remediation and/or closure purposes
- Evaluation of remedial alternatives
- Regulatory agency coordination, compliance, and negotiations
- Management and supervision of field installations and operation and maintenance activities

Relevant Experience

Ms. Bush is a registered professional geologist and a certified hydrogeologist in California. She has over 18 years of experience in the environmental field conducting site assessments, remediation implementation, and regulatory closure at several sites in the North State. She has served as a project manager for several complex projects through assessment, remediation and closure. Ms. Bush has an excellent working relationship with regulatory agencies including the Regional Water Quality Control Board, Central Valley Region and San Francisco Bay Region, Shasta County Department of Resources, Environmental Health Division, City of Redding, City of Vallejo, Department of Toxic Substances Control, and the United States Environmental Protection Agency.

Representative Projects

Project Geologist for soil and waste characterization at several water storage facilities. Prepared sampling and analysis plans for soil and waste characterization related to facility upgrades. Soils and waste often contained heavy metals, including elemental mercury related to aging equipment and other long-term facility operations. Supervised confined space entry for sampling of elemental mercury. Conducted soil sampling in order to characterize potential contamination

(hydrocarbons, PCBs, metals, etc.) related to facility operations so that construction upgrades could be completed safely. Characterized soil waste, construction debris, and other site waste for proper disposal following California Code of Regulations, Title 22 and the federal Resources Conservation and Recovery Act (RCRA).

Project Geologist for environmental compliance at multiple industrial facilities of a private timber company based in northern California. Provided geological and environmental services to ensure environmental compliance in relation to the management, storage, and discharge of industrial stormwater and process water at multiple sawmills and closed wood-waste landfills throughout northern California. Each facility is regulated under individual permit from the Central Valley Regional Water Quality Control Board, requiring routine monitoring and reporting specific to each facility. Provided training to onsite personnel for proper field and sampling techniques. Reviewed and managed site-specific data for quarterly/annual groundwater monitoring and reporting; reviewed the effectiveness of existing monitoring well networks to meet to meet the objectives of each sites permits. Prepared site-specific groundwater modelling using USEPA SWMM software.

Project Manager/Geologist for a PFAS Investigation at a closed landfill in Cassel, California. Completed an investigation for PFAS constituents at the site (monitoring wells and leachate) as ordered by the State Water Resources Control Board Water Code Section 13267 Order WQ-2019-0006-DWQ. Also, trained onsite personnel to conduct quarterly groundwater monitoring and observations related to the closed landfill as required by permit issued by the Central Valley Regional Water Quality Control Board. Prepared statistical analysis of historic site data to update Water Quality Protection Standards for the site.

Project Manager/Geologist for debris and ash removal for structure destroyed in Carr Fire. Prepared work plan for Debris and Ash Removal and Soil Confirmation Sampling per the City of Redding requirements for the cleanup of a single family home burned during the July 2018 Carr Fire. Conducted confirmation soil sampling and background soil sampling following removal of the burned debris and ash. Completed the final report detailing removal and disposal of debris and soil sample results.

Project Geologist for wet season stream sampling, Iron Mountain Mine. Coordinated field efforts and conducted storm season sampling of creeks within the Iron Mountain Mine Complex. Activities include stream and treatment plant sampling during storm events; coordination with multiple entities including Iron Mountain Mine Operations, USEPA Region 9 Lab, USGS, and other consultants.

Project Geologist for operations and maintenance at a confined disposal facility, Iron Mountain Mine. Coordinated field efforts and conducted operations and maintenance activities at a confined disposal facility in the Spring Creek Reservoir of Iron Mountain Mine. Activities include site inspection for damage to disposal cells, maintenance and repairs of cells and storm drainage, and effluent sampling.

Assistant Project Manager for monitoring acid mine drainage site in northern California. Coordinated field efforts to collect storm water samples at a Northern California mine located on U.S. Forest Service property with limited access. Evaluated sample results to determine the quality

of the water discharging from the underground mine workings and the impact of contaminated mine water on nearby streams.

Project Manager/Project Geologist for soil assessment and remediation at a former Naval installation. Worked with a major developer to review historic data for an environmental site that had previously received commercial/industrial closure to determine a path forward to achieve residential closure. Conducted data review, additional soil and groundwater assessment, targeted remedial activities (including chemical injection of persulfate and peroxide to treat residual petroleum contamination), agency negotiations, and document preparation to request closure at the site for residential redevelopment. Received closure of the site in 2018.

Project Geologist for in-situ remediation of groundwater at a chlorinated ethene site. Conducted several injections of cheese whey, lactate, and other amendments at a site to enhance reducing conditions and remediate chlorinated ethene contamination. Evaluated post-injection monitoring data to determine possible future activities including, but not limited to, additional injections, changes to the remediation and monitoring plans, monitored natural attenuation, and closure of the site.

Project Geologist/Assistant Project Manager for soil and groundwater assessment and remediation implementation at complex site with multiple contaminants in northern California. Coordinated and conducted site assessments to define the extent of petroleum hydrocarbons, chlorinated solvents, and heavy metals contamination in groundwater and subsurface soils. Coordinated and conducted in situ chemical oxidation remediation activities, including injection of oxidizing chemicals. Used advanced data analysis methods to determine historic trends of contaminants and the effects of the injection on the subsurface.

Project Geologist for groundwater monitoring at the City of Redding, Clear Creek Waste Water Treatment Plant. Coordinated field efforts and conducted groundwater monitoring at the Clear Creek Waste Water Treatment Plant. Activities included well installation and development, low flow purging and sampling of groundwater, operation and maintenance of data logging pressure transducers, data interpretation and presentation, and reporting.

Project Manager/Geologist for soil and groundwater assessment and remediation projects at multiple operating fueling stations in northern California. Tasks included many aspects of assessment and remediation of soil and groundwater projects including field work, permitting, reporting, and interactions with the client and regulators.

Specialized Training

- 40-Hour OSHA Hazardous Waste Operations Training, 2002 (with annual updates)
- Natural Attenuation in Soil and Groundwater, UC Berkeley Extension, 2003
- Advanced Data Analysis Techniques for Evaluating and Quantifying Natural Attenuation for Remediation of Contaminated Sites, NGWA, 2007
- PFAS Site Characterization and Remediation Considerations, Trihydro, 2020
- PFAS Data Analysis, Interpretation, and Risk Assessment, Trihydro Corp, 2020
- Problematic Groundwater Contaminants, NGWA, 2021

Appendix B - Fee Estimate

Water Works Engineers Fee Estimate

Client Coastside County Water District
Project Recycled Water Feasibility Study
Date 2/6/2023

Hours and Fee

			Subtask 1		Subtask 2.1		Subtask 2.2		Subtask 2.3		Subtask 2.4	
		Year	2023		2023		2023		2023		2023	
			Project Management		Studies for Feasibility Study		Outreach, Meetings and Tours		Draft Feasibility Study		Final Feasibility Study	
Water Works Engineers			hrs	fee								
Classification	**Title**	**Hourly Rate**										
E5	Sami Kader, PE	$264	10	$2,640					40	$10,560	8	$2,112
E5	Ben Lee	$264							40	$10,560	4	$1,056
E4	Cindy Bertsch, PE	$228	48	$10,944	16	$3,648	60	$13,680	120	$27,360	24	$5,472
E4	Joe Riess, PE	$228							40	$9,120	8	$1,824
E2	Jon Roy, PE	$175			20	$3,500			150	$26,250	24	$4,200
E1	Staff Engineer	$143					24	$3,432	200	$28,600	40	$5,720
AA	Administrative Assistant	$81	4	$324								
	Expenses							$1,250				
Subconsultants												
	Hydrogeology-Roux					$100,800						
	Haz Materials-Remedy					$5,000						
	Geology-Bajada					$10,200						
Subconsultant/Expense Markup		10%		$0		$11,600		$125		$0		$0
		Subtask Totals	*62*	*$13,908*	*36*	*$134,748*	*84*	*$18,487*	*590*	*$112,450*	*108*	*$20,384*

Subtasks 1 - 2	
Hours	880
Fee	$299,977

STAFF REPORT

To: **Coastside County Water District Board of Directors**

From: **Mary Rogren, General Manager**

Agenda: **June 13, 2023**

Report Date: **June 9, 2023**

Agenda Title: Approval of Salary Schedule with a Cost-of-Living Adjustment Increase for FY2023-2024 effective July 1, 2023

Recommendation/Motion:
Approve Salary Schedule with a Cost-of-Living Adjustment increase for FY2023-2024 effective July 1, 2023.

Background:
CalPERS requires Board approval of the salary schedule. The proposed schedule reflects a 4.9% Cost-of-Living Adjustment based upon the change in the Consumer Price Index – Urban Wage Earners and Clerical Workers – San Francisco-Oakland-San Jose, CA from February to February.

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COASTSIDE COUNTY WATER DISTRICT
SALARY SCHEDULE FOR FISCAL YEAR 2022-2023
EFFECTIVE: July 1, 2023
Approved at Board Meeting:

DRAFT

JOB TITLE	HOURLY RANGE BOTTOM	ANNUAL	HOURLY RANGE TOP	ANNUAL
MANAGEMENT				
GENERAL MANAGER				$ 268,118
ASSISTANT GENERAL MANAGER		$ 182,508		$ 222,368
SUPERINTENDENT OF OPERATIONS		$ 159,063		$ 193,804
ADMINISTRATIVE				
ADMINISTRATIVE ASSISTANT	$ 49.711	$ 103,399	$ 60.568	$ 125,981
OFFICE MANAGER	$ 53.889	$ 112,089	$ 65.659	$ 136,571
ACCOUNTING MANAGER/UTILITY BILLING MANAGER	$ 53.889	$ 112,089	$ 65.659	$ 136,571
CUSTOMER SERVICE SPECIALIST I	$ 33.874	$ 70,458	$ 41.273	$ 85,848
CUSTOMER SERVICE SPECIALIST II	$ 37.370	$ 77,730	$ 45.532	$ 94,707
UTILITY BILLING SPECIALIST	$ 45.505	$ 94,650	$ 55.443	$ 115,321
WATER RESOURCE ANALYST	$ 57.057	$ 118,679	$ 69.519	$ 144,600
WATER EFFICIENCY SPECIALIST	$ 41.247	$ 85,794	$ 50.255	$ 104,530
OPERATIONS				
DISTRIBUTION SUPERVISOR	$ 59.746	$ 124,272	$ 72.796	$ 151,416
TREATMENT PLANT SUPERVISOR	$ 67.593	$ 140,593	$ 82.356	$ 171,300
MAINTENANCE WORKER	$ 33.874	$ 70,458	$ 41.273	$ 85,848
MAINTENANCE WORKER II	$ 35.568	$ 73,981	$ 43.336	$ 90,139
TREATMENT/DISTRIBUTION OPERATOR (ASSIGNED TO DISTRIBUTION)	$ 40.930	$ 85,134	$ 49.869	$ 103,728
TREATMENT/DISTRIBUTION OPERATOR (ASSIGNED TO TREATMENT)	$ 45.276	$ 94,174	$ 55.165	$ 114,743
SR. DISTRIBUTION OPERATOR	$ 49.114	$ 102,157	$ 59.841	$ 124,469
SR. TREATMENT OPERATOR	$ 55.476	$ 115,390	$ 67.593	$ 140,593

** Reflects CPI-W - San Francisco-Oakland-Hayward - Feb 2022 to Feb 2023*

STAFF REPORT

To:	**Coastside County Water District Board of Directors**
From:	**Mary Rogren, General Manager**
Agenda:	**June 13, 2023**
Report Date:	**June 9, 2023**
Agenda Title:	Approval of Fiscal Year 2023-2024 Operations and Maintenance Budget and Fiscal Year 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program

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Recommendation/Motion:

Approve the Fiscal Year 2023-2024 Operations and Maintenance Budget and Fiscal Year 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program

Background:

Annually and prior to the start of the next fiscal year, Staff asks the Board to approve the Operations and Maintenance Budget and the Capital Improvement Program (CIP) for the upcoming fiscal year. At the June 13, 2023 Board of Directors meeting, Staff will ask the Board to approve the draft Fiscal Year 2023-2024 Operations and Maintenance (O&M) Budget and the draft Fiscal Year 2023/2024 to Fiscal Year 2032/33 Capital Improvement Program (CIP). These plans will be used for measuring financial performance on an ongoing basis during the upcoming fiscal year and will also be used in the development of the District's Financial Plan.

Staff met with the Facilities Committee on April 25, 2023 and the Finance Committee on May 2, 2023 and again on June 6, 2023. Staff will present a brief overview of the details of the draft FY 2023-2024 O&M Budget and draft FY 2023/2024 to FY 2032/33 CIP at the June Board meeting.

Draft Fiscal Year 2023-2024 O&M Budget:

A summary of the Draft Fiscal Year 2023-2024 O&M Budget as compared to the prior year's budget follows below.

	FY 2023/24 Draft Budget	FY 2022/23 Approved Budget	$ Change from Prior Budget	% Change from Prior Budget
REVENUE				
Water Sales in Million Gallons	***506 MG***	***550 MG***		
Water Revenue (1)	$ 12,963,614	$ 13,102,800	$ (139,186)	-1.1%
Non-Operating Revenue	$ 1,962,000	$ 1,792,000	$ 170,000	9.5%
Total Revenue	$ 14,925,614	$ 14,894,800	$ 30,814	0.2%
OPERATING EXPENSES	$ 10,609,648	$ 10,197,168	$ 412,479	4.0%
DEBT SERVICE	$ 1,512,000	$ 1,589,462	$ (77,462)	-4.9%
CONTRIBUTION TO CIP AND RESERVES	$ 2,803,966	$ 3,108,169	$ (304,203)	-9.8%

(1) includes a 6% increase effective January 2024 (approved December 13. 2022)

The **revenue** budget reflects water sales of 506 million gallons (MG), down from the prior year's budget of 550 MG, but increased from 470 MG projected actual for FY 2022-2023. The ($139,000) water revenue shortfall is partially offset by $170,000 of additional County and ERAF budgeted tax receipts.

Budgeted **operating expenses** are $412,000 (or 4%) higher than the prior year's budget primarily due to inflationary increases. **Debt service** reflects lower loan payments than the prior year.

The resulting contribution to CIP and Reserves is $304,000 lower than the prior year's budget.

See Exhibit A for the Draft FY 2023-2024 O&M Budget and detailed explanations of the variances.

Draft 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program:

- Draft 5 Year CIP - $34,160,000 (includes $2,200,000 of carryover projects from prior year including delays in the Nunes Water Treatment Plant Improvement Project, pipeline and well projects.)
- Draft 10 Year CIP - $71,260,000
- Prior Year's Approved 10 Year CIP - $68,315,000

The Draft 2023/2024 to Fiscal Year 2032/33 is $2,945,000 higher than the prior year's approved CIP primarily due to $2,200,000 of carryover projects from Fiscal Year 2022/2023 to Fiscal Year 2023/2024; and increased costs related to the Highway 92 emergency pipeline replacement project offset by the lower costs for

Water Treatment Plant projects given the completion of the $9M Nunes Water Treatment Plant Improvement Project in Spring, 2024.

The changes from the prior year 10 Year CIP approved in June 2022 are shown below:

Draft FY 23/24 to FY 32/33 Capital Improvement Program vs. FY 22/23 to FY 31/32 (Approved June 2022)

Category:	(New) Draft 10 Year CIP FY 23/24 to FY 32/33	Approved CIP (June 2022) FY 22/23 to FY 31/32	Budget Changes	Difference
Equipment Purchase & Replace	$ 1,530,000	$ 1,400,000	$130,000	
Facilities and Maintenance	$ 1,540,000	$ 1,540,000	$0	
Pipeline Projects	$ 26,425,000	$ 21,100,000	$5,325,000	Includes additional costs related to Highway 92 pipeline replacement plus $2.5M placeholder for projects for FY2033
Tanks/Pump Stations/Wells	$ 26,440,000	$ 26,700,000	($260,000)	
Water Supply Development	$ 9,150,000	$ 8,350,000	$800,000	Includes increased investment for San Vicente/Dennison Water Supply Investment
Water Treatment Plants	$ 6,175,000	$ 9,225,000	($3,050,000)	Prior year's CIP includes $9M Nunes WTP Improvement Project which was started in FY2022. This project will be completed in FY2024.
Total	***$ 71,260,000***	***$ 68,315,000***	***$2,945,000***	

See Exhibit B for the draft 2023/2024 to Fiscal Year 2032/2033 Capital Improvement Program.

DRAFT 6.9.2023

COASTSIDE COUNTY WATER DISTRICT

Operations & Maintenance Budget - FY 2023-2024

EXHIBIT A

Account Number	Description	Draft FY 2023/2024 Budget	Approved FY 2022/2023 Budget	FY23/24 Budget Vs. FY 22/23 Budget	FY23/24 Budgdt Vs. FY 22/23 Budget %	
				$ Changed	% Changd	
OPERATING REVENUE						
4120	*Water Sales **	***$ 12,963,614***	***$13,102,800***	*(139,186)*	-1.1%	FY2023 will end at approximately 470 MG sales; FY 2023/24 projections reflect slow recovery from drought; reflects 6% approved rate increase 1/2024
	Water Sales in MG	*506 MG*	*550 MG*			
Total Operating Revenue		***$ 12,963,614***	***$13,102,800***	***(139,186)***	**-1.1%**	
NON-OPERATING REVENUE						
4170	Hydrant Sales	**$52,000**	**$48,000**	4,000	8.3%	
4180	Late Penalty	**$65,000**	**$50,000**	15,000	30.0%	
4230	Service Connections	**$10,000**	**$10,000**	0	0.0%	
4920	Interest Earned	**$90,000**	**$32,000**	58,000	181.3%	Reflects higher LAIF interest earnings (higher cash balance in LAIF)
4930	Property Taxes	**$995,000**	**$950,000**	45,000	4.7%	Reflects higher tax revenue due to recent historical tax receipts
4950	Miscellaneous	**$5,000**	**$10,000**	(5,000)	-50.0%	
4955	Cell Site Lease Income	**$195,000**	**$192,000**	3,000	1.6%	
4965	ERAF Refund	**$550,000**	**$500,000**	50,000	10.0%	Reflects higher ERAF due to recent historical tax receipts
Total Non-Operating Revenue		**$1,962,000**	**$1,792,000**	**170,000**	**9.5%**	
TOTAL REVENUES		**$14,925,614**	**$14,894,800**	**30,814**	**0.2%**	
OPERATING EXPENSES						
5130	Water Purchased	**$2,260,502**	**$2,187,719**	72,783	3.3%	Includes 9.6% rate increase; increased use of local sources
5130A	BAWSCA Bond Surcharge	**$200,844**	**$279,784**	(78,940)	-28.2%	reflects reduction due to BAWSCA refinancing of bond issue
5230	Electrical Exp. Nunes WTP	**$57,000**	**$48,000**	9,000	18.8%	
5231	Electrical Expenses, CSP	**$350,000**	**$366,000**	(16,000)	-4.4%	reflects projected lower electricity usage at Crystal Springs due to lower sales & the District's ability to use its local source at Denniston given the 2022-2023 winter rains.
5232	Electrical Expenses/Trans. & Dist.	**$27,000**	**$25,000**	2,000	8.0%	
5233	Elec Exp/Pilarcitos Cyn	**$69,000**	**$64,000**	5,000	7.8%	
5234	Electrical Exp., Denn	**$89,000**	**$77,000**	12,000	15.6%	
5242	CSP - Operation	**$13,000**	**$12,000**	1,000	8.3%	
5243	CSP - Maintenance	**$35,000**	**$35,000**	0	0.0%	
5246	Nunes WTP Oper	**$102,000**	**$97,000**	5,000	5.2%	
5247	Nunes WTP Maint	**$125,000**	**$119,000**	6,000	5.0%	
5248	Denn. WTP Oper.	**$54,000**	**$64,000**	(10,000)	-15.6%	Reflects timing of chemical purchases (every other year)
5249	Denn WTP Maint	**$155,000**	**$140,000**	15,000	10.7%	
5250	Laboratory Expenses	**$77,000**	**$77,000**	0	0.0%	
5260	Maintenance Expenses	**$395,000**	**$380,000**	15,000	3.9%	
5261	Maintenance, Wells	**$50,000**	**$50,000**	0	0.0%	
5263	Uniforms	**$14,000**	**$12,000**	2,000	16.7%	
5318	Studies/Surveys/Consulting	**$160,000**	**$157,000**	3,000	1.9%	
5321	Water Resources	**$21,500**	**$26,700**	(5,200)	-19.5%	
5322	Community Outreach	**$68,000**	**$68,000**	0	0.0%	
5325	Water Shortage Program	**$0**	**$50,000**	(50,000)		Budget reduct reflects recovery from drought
5381	Legal	**$110,000**	**$110,000**	0	0.0%	
5382	Engineering	**$86,000**	**$76,000**	10,000	13.2%	
5383	Financial Services	**$23,000**	**$23,000**	0	0.0%	
5384	Computer Services	**$339,974**	**$309,025**	30,949	10.0%	Includes additional software licenses over prior year (for WIMS Hach software, Accela planning software)

DRAFT 6.9.2023

Operations & Maintenance Budget - FY 2023-2024

EXHIBIT A

Account Number	Description	Draft FY 2023/2024 Budget	Approved FY 2022/2023 Budget	FY23/24 Budget Vs. FY 22/23 Budget	FY23/24 Budgdt Vs. FY 22/23 Budget %	
				$ Changed	% Changd	
5410	Salaries, Admin.	**$1,381,887**	**$1,267,717**	114,170	9.0%	Includes 4.9% COLA; prior years budget reflects AGM position for only partial year
5411	Salaries - Field	**$1,931,847**	**$1,764,505**	167,342	9.5%	Includes 4.9% COLA + 2.5% step/promotion and cert pay increases; also includes placeholder for 1/2 year for additional maintenance worker hire (given potential retirements)
5420	Payroll Taxes	**$235,945**	**$224,338**	11,607	5.2%	
5435	Employee Medical Insurance	**$516,000**	**$505,000**	11,000	2.2%	
5436	Retiree Medical Insurance	**$46,000**	**$52,000**	(6,000)	-11.5%	
5440	Employee Retirement	**$642,924**	**$600,506**	42,418	7.1%	Reflects increase in employer contribution for Classic PERS due to plan actuarial changes
5445	SIP 401a Plan	**$38,000**	**$36,000**	2,000	5.6%	
5510	Motor Vehicle Exp.	**$90,000**	**$80,000**	10,000	12.5%	Reflects higher fuel costs for emergency generators (fuel for generators included in this category)
5620	Office, Billing & Facilities Expenses	**$414,000**	**$412,500**	1,500	0.4%	
5625	Meetings/Training/Seminars	**$45,000**	**$41,000**	4,000	9.8%	Reflects increase in staff training (post COVID)
5630	Insurance	**$182,000**	**$161,000**	21,000	13.0%	Reflects JPIA insurance rate increases
5687	Memberships & Subscriptions	**$118,825**	**$99,975**	18,850	18.9%	Includes addition of California Data Cooperative membership
5688	Election Expense	**$0**	**$20,000**	(20,000)	-100.0%	Budget year does not include an election.
5689	Labor Relations	**$6,000**	**$6,000**	0	0.0%	
5700	County Fees	**$31,400**	**$31,400**	0	0.0%	
5705	State Fees	**$48,000**	**$42,000**	6,000	14.3%	
Total Operating Expenses		**$10,609,648**	**$10,197,168**	**412,479**	**4.0%**	
	CAPITAL ACCOUNTS					
5715	Existing Bond-CIEDB 11-099	**$335,343**	**$335,508**	(165)	0.0%	
5716	CIEDB 16-111	**$321,923**	**$322,417**	(494)	-0.2%	
5717	Chase-2018 Loan	**$437,233**	**$436,027**	1,206	0.3%	
5718	First Foundation Bank - 2022	**$417,501**	**$495,510**	(78,009)	-15.7%	Reflects loan payment schedule
Total Capital Accounts		**$1,512,000**	**$1,589,462**	**(77,462)**	**-4.9%**	
TOTAL REVENUE LESS TOTAL EXPENSE		**$2,803,966**	**$3,108,169**	**(304,203)**	**-9.8%**	
5713	Cont. to CIP & Reserves	**$ 2,803,966**	**$3,108,169**			

Project #	Project Name	Projected FY 23/24 to FY 32/33 Total (Adjusted 4.2023)	FY 23/24	FY 24/25	FY 25/26	FY26/27	FY27/28	FY28/29	FY 29/30	FY 30/31	FY 31/32	FY 32/33	Projected FY 23/24 to FY 32/33 Total
Equipment Purchase & Replacement													
06-03	SCADA/Telemetry/Electric Controls Replacement	$ 500,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 500,000
15-04	Vactor Truck/Trailer	$ 500,000						$ 500,000					$ 500,000
99-02	Vehicle Fleet Replacement	$ 530,000	$ 80,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 530,000
	Equipment Purchase & Replacement Totals	**$ 1,530,000**	**$ 130,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 600,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 1,530,000**
Facilities & Maintenance													
09-09	Fire Hydrant Replacement	$ 1,400,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 1,400,000
NN-00	Pilarcitos Canyon Culvert Replacement	$ 40,000	$ 40,000										$ 40,000
99-01	Meter Change Program	$ 100,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 100,000
	Facilities and Maintenance Totals	**$ 1,540,000**	**$ 190,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 1,540,000**
Pipeline Projects													
14-01	Highway 92 - Emergency Pipeline Restoration and Replacement of Welded Steel Line	$ 7,900,000	$ 2,500,000	$ 1,200,000	$ 200,000	$ 3,000,000	$ 1,000,000						$ 7,900,000
14-33	Miramar Cast Iron Pipeline Replacement	$ 2,500,000							$ 1,000,000	$ 1,500,000			$ 2,500,000
16-09	Magellan at Hwy 1/Miramar Dead Ends	$ 1,300,000	$ 500,000		$ 800,000								$ 1,300,000
22-07	Alameda Ave Crossing at Medio Creek	$ 275,000	$ 275,000										$ 275,000
18-01	Pine Willow Oak Pipeline Replacement	$ 2,500,000					$ 2,500,000						$ 2,500,000
21-01	Redondo Beach Loop to St Andrews Road	$ 150,000			$ 150,000								$ 150,000
21-09	Miramar Tank/Pipeline Replacement (600 ft)	$ 500,000				$ 500,000							$ 500,000
22-01	Miramontes Point Road Water Main Replacement	$ 3,800,000						$ 2,300,000	$ 1,500,000				$ 3,800,000
23-01	Seahaven/Spindrift Neighborhood Pipeline Replacement	$ 2,000,000								$ 2,000,000			$ 2,000,000
23-02	Poplar Avenue Pipeline Replacement	$ 2,000,000	$ 400,000								$ 1,600,000		$ 2,000,000
24-01	Granelli/Myrtle Valve Replacement Project	$ 100,000	$ 100,000										$ 100,000
NN-00	Unscheduled CIP	$ 3,400,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 2,500,000	$ 3,400,000
	Pipeline Projects Totals	**$ 26,425,000**	**$ 3,875,000**	**$ 1,300,000**	**$ 1,250,000**	**$ 3,600,000**	**$ 3,600,000**	**$ 2,400,000**	**$ 2,600,000**	**$ 3,600,000**	**$ 1,700,000**	**$ 2,500,000**	**$ 26,425,000**
Pump Stations/Tanks/Wells													
21-07	Carter Hill Tank Improvement Project	$ 19,700,000	$ 300,000	$ 4,000,000	$ 5,400,000					$ 500,000	$ 5,000,000	$ 4,500,000	$ 19,700,000
08-14	Alves Tank Rehabilitation/Replacement	$ 3,000,000						$ 3,000,000					$ 3,000,000
19-01	EG#1 Tank Improvement Project/New Pump Station	$ 1,150,000	$ 150,000	$ 1,000,000									$ 1,150,000
14-33	Miramar Tank Rehabilitation	$ 200,000					$ 200,000						$ 200,000
08-16	Cahill Tank Rehabilitation	$ 125,000				$ 125,000							$ 125,000
20-16	Denniston Tank Rehabilitation	$ 125,000				$ 125,000							$ 125,000
09-18	Upper Pilarcitos Well Field Replacements	$ 500,000			$ 500,000								$ 500,000

Project #	Project Name	Projected FY 23/24 to FY 32/33 Total (Adjusted 4.2023)	FY 23/24	FY 24/25	FY 25/26	FY26/27	FY27/28	FY28/29	FY 29/30	FY 30/31	FY 31/32	FY 32/33	Projected FY 23/24 to FY 32/33 Total
16-08	Denniston Well Field Replacements	$ 1,000,000	$ 500,000					$ 500,000					$ 1,000,000
20-01	CSP Pump #1/2 Spare	$ 90,000	$ 90,000										$ 90,000
21-03	CSP Pump #3 Replacement	$ 250,000				$ 250,000							$ 250,000
23-11	CSP Screens - Intake Valves	$ 250,000	$ 250,000										$ 250,000
19-05	Tanks - THM Control	$ 50,000	$ 50,000										$ 50,000
	Pump Stations/Tanks/Wells Totals	**$ 26,440,000**	**$ 1,340,000**	**$ 5,000,000**	**$ 5,900,000**	**$ 500,000**	**$ 200,000**	**$ 3,500,000**	**$ -**	**$ 500,000**	**$ 5,000,000**	**$ 4,500,000**	**$ 26,440,000**
Water Supply Development													
12-12	San Vicente/Denniston Water Supply Project	$ 5,000,000	$ 500,000	$ 2,000,000	$ 200,000	$ 200,000	$ 300,000	$ 1,000,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 5,000,000
13-04	Denniston Reservoir Restoration	$ 1,000,000						$ 1,000,000					$ 1,000,000
23-04	Lower Pilarcitos Well Development	$ 2,850,000	$ 100,000			$ 250,000	$ 250,000	$ 250,000	$ 1,000,000	$ 1,000,000			$ 2,850,000
17-12	Recycled Water Project Development	$ 300,000	$ 300,000										$ 300,000
													$ -
	Water Supply Development Totals	**$ 9,150,000**	**$ 900,000**	**$ 2,000,000**	**$ 200,000**	**$ 450,000**	**$ 550,000**	**$ 2,250,000**	**$ 1,200,000**	**$ 1,200,000**	**$ 200,000**	**$ 200,000**	**$ 9,150,000**
Water Treatment Plants													
20-14	Nunes Water Treatment Plant Improvement Project	$ 1,600,000	$ 1,600,000										$ 1,600,000
23-05	Sodium Hypochlorite Generator Replacement (Nunes)	$ 200,000	$ 200,000										$ 200,000
23-06	Existing Sedimentation Basin Rehabilitation	$ 300,000	$ 300,000										$ 300,000
23-07	Denniston Contact Clarifier Hatch Replacements	$ 75,000	$ 75,000										$ 75,000
NN-00	Denniston Water Treatment Plant Improvement Project	$ 4,000,000							$ 4,000,000				$ 4,000,000
21-06	Nunes Magnetic Meter	$ -											$ -
	Water Treatment Plants Totals	**$ 6,175,000**	**$ 2,175,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,000,000**	**$ -**	**$ -**	**$ -**	**$ 6,175,000**
	GRAND TOTAL	**$ 71,260,000**	**$ 8,610,000**	**$ 8,550,000**	**$ 7,600,000**	**$ 4,800,000**	**$ 4,600,000**	**$ 8,900,000**	**$ 8,050,000**	**$ 5,550,000**	**$ 7,150,000**	**$ 7,450,000**	**$ 71,260,000**

Note:
Prior Year's CIP (aapproved June 2022) budget

	FY22/23	FY 23/24	FY 24/25	FY 25/26	FY26/27	FY 27/28
	$ 8,205,000	$ 5,090,000	$ 7,940,000	$ 6,390,000	$ 5,690,000	$ 6,640,000
shift from FY 22/23 to FY 23/24	$ (2,200,000)	$ 2,200,000				

STAFF REPORT

To: **Coastside County Water District Board of Directors**

From: **James Derbin, Superintendent of Operations**

Agenda: **June 13, 2023**

Date: **June 6, 2023**

Subject: **Nunes Water Treatment Plant Upgrades Project Update #22**

Informational Item

The Nunes Water Treatment Plant Upgrade Project official contractual start date was August 16, 2021. This is monthly project update #22.

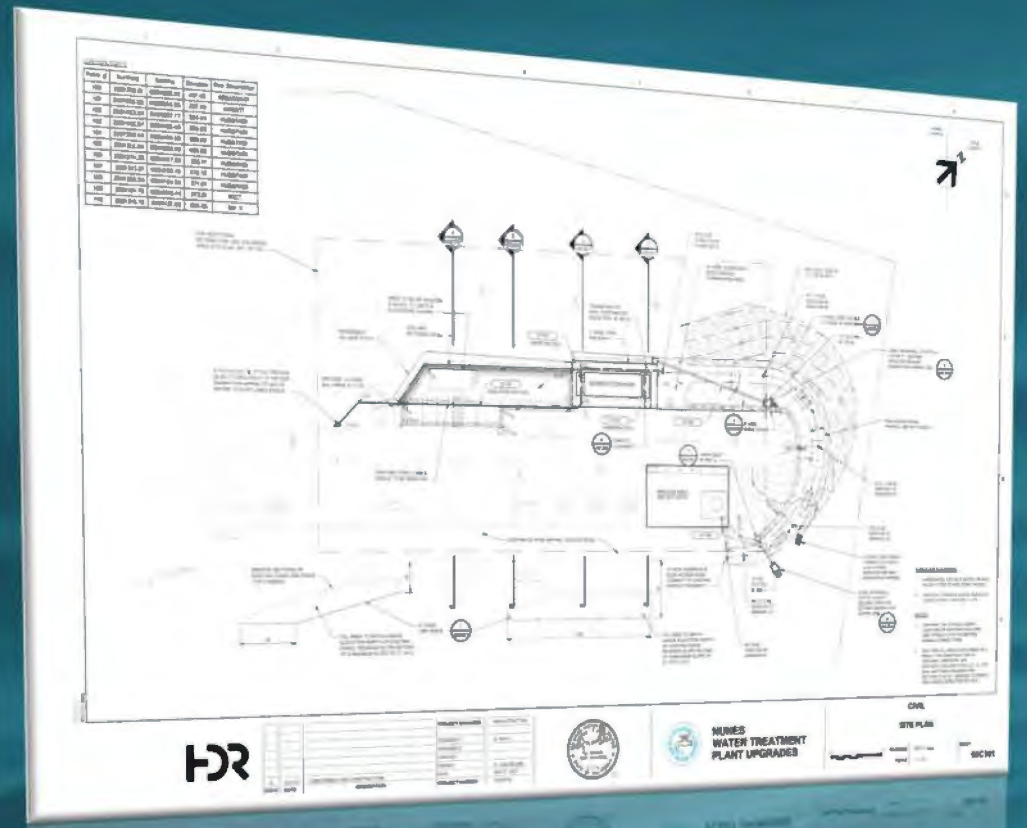
In the last month the following progress has been made:

- Testing of Caustic Soda system
- Testing, training and startup of the air scour blower
- New MCC commissioning
- Installation of the 12' and 20" valves in filter gallery
- Replacement of two valves and two check valves in Backwash pump room
- Installation of pipe supports on existing 24" in filter gallery
- Installation of conduits to filters
- Sed Basin Slide Gate arrived end of May

The estimated completion date has been pushed out to March/April 2024.

Freyer and Loretta, Inc., the Construction Management firm on this project has put together a brief summary of progress to date. See Attachment A.

Attachment A



COASTSIDE COUNTY WATER DISTRICT

Coastside County Water District

Nunes Water Treatment Plant Upgrades

June 13, 2023 Board Meeting

FREYER & LAURETA, INC.

Contract Data as of Board Meeting Date

Contract Time (Calendar Days)		Contract Value	
Base Contract Duration	720	Base Contract	$8,339,915.00
Approved Change Order Days Added	0	Approved Change Order Added	$0
Approved Change Order Days Subtracted	0	Approved Change Order %	0%
Total Contract Duration	720	Total Contract Approved	$8,339,915.00
Elapsed (Start Date 8/16/2021)	666	Billed to Date [1]	$6,706,500.00
Remaining Days	54	Remaining Value	$1,633,415.00

[1] Billed to date value is the contract work complete including the 10% retention that will be paid to Contractor upon project completion.

Construction Progress Update #22

Progress since Previous Board Meeting:

- Successful water testing of Caustic Soda tank system.
- Successful startup of the new Blowers.
- Blower system training of CCWD staff.
- Successful commissioning of the new Motor Control Center (MCC).
- Installation of 12-inch and 20-inch valves inside Filter Gallery.
- Installation of 12-inch pipe and flow meter in Equipment Room.
- Installation of two check valves and butterfly valve in Pump Room.
- Installation of pipe supports at Existing 24-inch in Filter Gallery.
- Installation of 6-inch air scour valves and header pipe with supports.
- Installation of electrical conduit to filters.

Construction Progress Update (continued)

Three-Week Look Ahead Schedule:

Major items of work anticipated over next 3-4 weeks are as follows:

- Installation of air scour valves.
- Knife gate valve installation completion.
- Cleaning of new Sedimentation Basin, disinfection, testing, and final adjustments.
- Butterfly valve startup and limit testing.
- Performance testing of filter-to-waste pumps.
- Final electrical work for blowers.
- Installation of underdrain system in Filter 4.
- Testing of underdrain system with Ovivo.
- Commissioning and testing of equipment by Calcon.

Overall Project Schedule:

- Now that the Variable Frequency Drive (VFD) and all valves except one are onsite, procurement uncertainty is largely finished. Ranger is awaiting just one more valve (for the air scour system).
- Time-only Change Order (no cost) will be submitted extending project end-date to June 2024. This includes approximately 3-months of float, so completion could be as early as March/April 2024.

Construction Photos

STAFF REPORT

To: **Coastside County Water District Board of Directors**

From: **Mary Rogren, General Manager**

Agenda: **June 13, 2023**

Report Date: **June 9, 2023**

Agenda Title: General Manager's Report

Recommendation/Motion:
Information Only.

Comment Letter to the State Water Resources Control Board in Response to Notice of Preparation for a Possible Amendment of the Bay-Delta Plan to Incorporate Voluntary Agreement for the Tuolumne River

Please find attached a comment letter submitted to the State Water Resources Control Board in support of a voluntary agreement for the Tuolumne River. Cathleen Brennan provided oral comments at the May 18, 2023 scoping meeting held by the State Water Resources Control Board.

Low Income Home Water Assistance Program (LIHWAP)

The Low Income Home Water Assistance Program (LIHWAP) was created by the Federal Government and implemented by the State of California to aid in a one-time payment of a water bill. The program is open until September 30, and the customer must apply directly.

The District's Customer Service staff has recently been promoting the program, including sending out the attached notice to past due customers and distributing the flyer to low income communities. With the recent promotion, the District has received payments for (7) low income customers.

More information can be found at:
https://coastsidewater.org/need-help-paying-your-bill/

May 16, 2023

Via e-mail: LSJR-SD-Comments@waterboards.ca.gov

Division of Water Rights Mail Room
Attn: San Joaquin Unit
State Water Resources Control Board
PO Box 100
Sacramento, CA 95812-2000

Subject: LSJR-SD-Comments@waterboards.ca.gov

Dear Board Members,

I would like to extend the Coastside County Water District's support for the State Board's initiation of an environmental review of a possible amendment to the Bay-Delta Water Quality Control Plan to incorporate a Tuolumne River Voluntary Agreement.

The current Plan would result in a very serious loss of up to 90 million gallons of water every day during times of drought from the San Francisco Regional Water System, which Coastside County Water District relies on to meet the needs of its 19,000 residents and businesses.

If implemented, the current Bay-Delta Water Quality Control Plan would result in the need for our customers to ration 50% percent during multi-year droughts. This is documented in the Coastside County Water District's Urban Water Management Plan.

The Coastside County Water District is hopeful that a voluntary agreement for the Tuolumne River will be a big step forward in providing necessary improvements for fish in the Tuolumne River and ensuring a continuing reliable supply of high-quality water at a fair price for the health safety, and economic well-being of Coastside County Water District's water users.

We request that the environmental document consider the potential environmental effects on water supply from the project's flow proposal compared to the adopted Bay-Delta Plan, and also consider Coastside County Water District's Urban Water Management plan for any resulting negative impacts from reduced water supplies including drought response actions, rationing, and ability to build much needed housing, and for potential negative impacts from securing additional water supplies to make up for shortfalls.

Coastside County Water District looks forward to a voluntary agreement for the Tuolumne River being carefully analyzed, as an update to the Bay-Delta Plan, and implemented.

Best regards,

Mary Rogren
General Manager
Coastside County Water District

¿Tienes Una Factura De Agua Vencida?

LOW-INCOME HOME WATER ASSISTANCE PROGRAM

Puede ser elegible para un crédito en su factura de agua de hasta $15,000!

Central Coast Energy Services es el proveedor del **Programa de Asistencia de Agua para Hogares de Bajos Ingresos (LIHWAP)** para los condados de Monterey, Santa Cruz, **San Mateo**, y la ciudad y el condado de San Francisco. LIHWAP proporciona un **beneficio de asistencia de pago por una vez** de hasta **$15,000** en las facturas residenciales de agua y aguas residuales para hogares de bajos ingresos. La elegibilidad se basa en el tamaño del hogar, los ingresos y la participación de la Agencia de Servicios de Agua.

Esto es lo que necesita enviar para comenzar su solicitud de asistencia:

- **LIHWAP Solicitud**
- **Emitido por el gobierno Identificación con foto**
- **Documentos de ingresos de los últimos 30 días para todos los adultos en el hogar**
- **Todas las páginas de la factura de agua vencida más reciente, aguas residuales y/o aviso de cierre**

# de Personas en el Hogar	1 persona	2 Personas	3 Personas	4 Personas	5 Personas	6 Personas	7 Personas	8 Personas
Máximo Ingreso Mensual	$2,700	$3,531	$4,361	$5,192	$6,023	$6,854	$7,010	$7,166

Llamar Central Coast Energy Services Para Más Información

(831) 726 - 8817

Los créditos para los beneficios de LIHWAP son emitidos por el estado directamente a las cuentas de agua, cuentas de aguas residuales o al propietario/dueños si los servicios públicos están incluidos en el alquiler o submedidos. Los proveedores de agua deben inscribirse en los acuerdos de pago directo de LIHWAP para que los clientes participen.

www.EnergyServices.org/LIHWAP

DO YOU HAVE A PAST-DUE WATER BILL?

LOW-INCOME HOME WATER ASSISTANCE PROGRAM

You May Be Eligible for a Credit on Your Water Bill of Up To $15,000!

Central Coast Energy Services is the provider for the **Low-Income Home Water Assistance Program (LIHWAP)** for the counties of Monterey, Santa Cruz, **San Mateo**, and the city and county of San Francisco. LIHWAP provides a **one-time payment assistance** benefit of up to **$15,000** on residential water and wastewater bills for low-income households. Eligibility is based on household size, income, and Water Service Agency participation.

Here's What You Need to Submit To Begin Your Application For Assistance:

- **LIHWAP Application**
- **Government-Issued Photo Identification**
- **Income Documents for the Last 30 Days for All Adults in the Household**
- **All Pages of the Most Recent Past-Due Water Bill, Wastewater and/or Shutoff Notice**

Household Size	1 Person	2 People	3 People	4 People	5 People	6 People	7 People	8 People
Max Monthly Income	$2,700	$3,531	$4,361	$5,192	$6,023	$6,854	$7,010	$7,166

Call Central Coast Energy Services For More Information

(831) 726-8817

Credits for LIHWAP benefits are issued by the State directly to water accounts, wastewater accounts, or to Landlord/Owners if utilities are included in the rent or sub-metered. Water Providers must enroll in LIHWAP Direct Payment Agreements for customers to participate.

www.EnergyServices.org/LIHWAP

MONTHLY REPORT

To: **Mary Rogren, General Manager**

From: **James Derbin, Superintendent of Operations**

Agenda: **June 13, 2023**

Report Date: **June 9, 2023**

Monthly Highlights

- Denniston WTP ran all month in May and is currently running at 900 gpm (since May 19)
- Five staff passed the HAM radio Technician exam and one passed the General HAM radio exam also
- Darin Sturdivan and Dustin Jahns both participated in the annual local APWA Chapter Equipment Rodeo in Redwood City. Darin won the event and will be attending the nationwide competition in San Diego in August.

May Sources: Pilarcitos/Denniston

Projects

- Nunes Water Treatment Plant Improvement Project – Ongoing
- Hach WIMS Database configured and under final development
- HMB Tank Magnetic meter project – 95% Complete
- Mowing at Cahill/CSP
- Seal Coat CSP asphalt
- Annual handheld and truck radios service
    - Replaced hydrant at: Burning Tree Court

- EKI
    - Hwy 92 Emergency repair scoping/design/planning - ongoing

- HDR
    - Half Moon Bay Tank replacement project
      Plans for replacement of HMB tanks 1&2 at 100% design comments in. SWCA conducted a Biological survey of the site for permitting and now will help with NOE as requested by City staff before a CDP exemption can be issued.
- Stetson
    - 90% San Vicente Pipeline Design - staff comments in, met with design engineers and staff to discuss

STAFF REPORT

To: **Board of Directors**

From: **Cathleen Brennan, Water Resource Analyst**

Agenda: **June 13, 2023**

Report: **June 8, 2023**

Subject: **Water Resources Informational Report**

Attachment: **FAQ on Statewide Water Restrictions**

Water Shortage Emergency

The statewide requirement for urban water suppliers to implement their demand reduction actions that correspond to level or stage 2 of their water shortage contingency plans is no longer in effect since June 5, 2023. Therefore, according to the Board's adoption of Ordinance 2023-01, the District has rescinded the water shortage emergency and all emergency reduction actions, as of June 5, 2023.

District Water Conservation Regulations

Ordinance 2008-01 which prohibits wasteful water use during normal water supply situations is now in effect within the District's service area. District staff is considering updating this Ordinance in the near future with additional prohibitions on water waste that have become standard for California water agencies within the last ten years.

Summary of District Prohibitions

- Flooding or runoff into gutters, parking lots, sidewalks, or streets.
- Failure to repair broken or defective plumbing within 48 hours of being notified by District in writing.
- Failure to use nozzle with positive shut off valve or similar device to control flow of water when washing vehicles, driveways, sidewalks, buildings, patios, and other hard surfaces.
- Pooling of water due to super saturation of the ground and soil from irrigation.
- Use of water in non-recirculating decorative fountains.
- Indiscriminate running of water or washing with water, which is wasteful and without reasonable purpose.

Statewide Water Conservation Regulations

Effective until June 2024 is a statewide ban on watering decorative ("non-functional") grass in commercial, industrial, and institutional areas, including common areas of homeowner's associations.

There are still statewide prohibitions in effect for all Californians through December 2023.

Summary of Statewide Prohibitions on Wasteful Water Use

- Outdoor watering that lets water run onto sidewalks and other areas.*
- Washing vehicles without an automatic shut off nozzle.*
- Washing hard surfaces like driveways or sidewalks that don't absorb water.*
- Street cleaning or construction site preparation.
- Filling decorative fountains, lakes, or ponds without a recirculation pump.*
- Outdoor watering within 48 hours after at least ¼ inch of rainfall.
- Watering decorative grass on public medians.

There are some overlapping prohibitions between the District's local regulations and the statewide regulations. An asterisk is next to those overlapping prohibitions.

CALIFORNIA Water Boards

Frequently Asked Questions

Statewide Water Restrictions for All Californians

Water Conservation Emergency Regulations

Frequently Asked Questions | Updated June 5, 2023

As climate change-induced extreme weather continues to disrupt California's water system, two State Water Resources Control Board (State Water Board or Board) adopted emergency regulations remain in effect, prohibiting certain wasteful water use practices statewide and encouraging water suppliers and all Californians to monitor water use more closely while building habits to use water wisely and make conservation a way of life. Local water suppliers may have adopted different and/or stricter water conservation measures than the State Water Board's, so water customers should check with local agencies about their current restrictions.

This Frequently Asked Questions (FAQs) document updates previous FAQs. Please use the contents below to find information that may be most relevant to you.

You can download a Statewide Water Restrictions flyer to share with customers and HOA residents here.

Contents

All Californians

The questions below may be of interest to all Californians.

Where can I find information on the State Water Board's water conservation emergency regulations?

You can find updated documents and subscribe to the Water Conservation Regulations email list for announcements on the State Water Board's Water Conservation Emergency Regulations webpage at bit.ly/conservationreg

Should I follow state or local water use restrictions?

In most cases you should follow both. The State Water Board's restrictions that apply to all Californians include all the water use restrictions in the emergency regulation to prohibit wasteful water uses effective since January 2022 and the ban on watering decorative grass in commercial, industrial, and institutional areas (including common areas of homeowners' associations) effective since June 2022.

How is the Board advancing drought resilience and water conservation for the long-term?

Among other ongoing activities related to water rights and water quality, the Board is working on regulations to Make Conservation a California Way of Life. The Safe and Affordable Funding for Equity and Resilience (SAFER) program supports permanent and sustainable drinking water solutions that ensure all Californians have access to safe, affordable, and reliable drinking water. For information and updates on the Board's drought activities, visit the Board's Drought website.

What is considered "potable" water?

For the emergency regulations, potable water is water from any drinking water system or any source used for drinking.

Do I need to empty my swimming pool because of drought?

The State Water Board's emergency regulations do not prohibit the filling, refilling, or use of swimming pools, however local water suppliers may have stricter water use rules than the State Water Board. Please contact your local water supplier for more information.

What is "turf"?

Turf means "a ground cover surface of mowed grass." This official definition of turf can be found in section 491 of title 23 of the California Code of Regulations.

What is "non-functional turf" or "decorative grass"?

Non-functional turf is a ground cover surface of mowed grass that is ornamental and not otherwise used for human recreation purposes. Non-functional turf does not include school fields, sports fields, and areas regularly used for civic or community events. To use more everyday language, this document intends for "decorative grass" to have the same meaning that non-functional turf does in the regulation.

Does the statewide ban on watering decorative grass apply to residential properties?

No, residential properties may continue to water decorative grass, however watering that causes more than incidental runoff remains prohibited. Also, local water suppliers may have stricter rules than the State Water Board, so check with your supplier. The Board encourages people to reduce watering decorative grass on their properties and to convert it to water-wise plants, but these are not required by the regulations. For more information and practical tips for converting your landscape and making your yard more climate-ready, visit SaveOurWater.com.

What is "incidental runoff"?

"Incidental runoff" is an unintended, unanticipated, and infrequent amount of water that escapes the area where it was applied (for example, a sprinkler causing a small amount of water to unintentionally flow from a lawn onto the sidewalk). Runoff is not considered incidental if it is a result of excessive application, the facility or system design, intentional overflow, or negligence.

Do I have to follow a lawn watering schedule?

It depends on your local water use rules. Everyone should avoid overwatering lawns and everyone should wait 48 hours after it rains to water their lawns. However, lawn watering schedules are set by local water suppliers and cities. Please check with your local water supplier about your local schedule.

Should I skip watering when it rains?

Yes. If it rained recently or is going to rain soon, you should change your lawn watering schedule. Check the weather to plan for and confirm the amount of rainfall in your area.

Why does the emergency regulation prohibit watering during or within 48 hours of at least one fourth of an inch (1/4") of rainfall specifically?

During the last drought, watering was prohibited after "measurable rainfall." A number of comments suggested that the State Water Board use ¼ of an inch of rain to make the prohibition clearer. After this amount of rain, a sprinkler system can generally be turned off for at least 48 hours without harming most landscapes.

Are rebates available to replace grass?

For residents and businesses, rebates may be available from local water suppliers and cities.

Who enforces the water use prohibitions?

Any local agency or government authorized to enforce infractions can enforce these water use prohibitions at their discretion, along with the State Water Board. The emergency regulations allow agencies and governments to decide if and how to enforce these prohibitions along with their own existing water use rules.

What actions may a water supplier or local government (or any entity already authorized to enforce infractions) take to enforce violations of the regulations? What actions may the State Water Board take?

Local or State Water Board enforcement may include warning letters, conservation orders, and fines (up to $500 per day). The State Water Board also encourages agencies to provide additional assistance to disadvantaged communities and translate conservation announcements and materials into the languages spoken in their service areas.

Where can I report water waste violations?

You can report water waste violations online at SaveWater.CA.Gov. These reports are sent to local water suppliers and the Board. The website allows you to upload photos, which helps with enforcement decision-making.

Can my HOA stop me from conserving water?

No. Homeowners may remove their lawns and replace them with water-wise plants. If you install water-efficient landscaping during the drought, your homeowners' association (HOA) cannot prevent you from maintaining it or require you to remove it when there is no longer a drought state of emergency. Additionally, your HOA cannot impose a fine or assessment for reducing or eliminating the watering of vegetation or lawns during a drought state of emergency, nor can it prohibit, or include conditions that have the effect of prohibiting, the use of low water-using plants as a group or as a replacement of existing grass. This enforcement may violate the Davis-Stirling Act. The State Water Board or a local agency could impose penalties on any HOA that violates specific portions of the Davis-Stirling Act. For more information and practical tips for making your yard more water-wise, visit SaveOurWater.com.

HOA, commercial, industrial & institutional property managers

Commercial, institutional, and industrial property managers, workers, and residents are required to comply with all prohibitions discussed in the questions above. Below is more information that is relevant specifically to commercial, institutional, and industrial areas, including areas managed by homeowners' associations (HOAs).

What parts of the Davis-Stirling Act apply to HOAs during a drought emergency?

According to the Davis-Stirling Act, an HOA may not impose a fine for reducing watering of lawns or vegetation during a drought emergency that was either declared by the Governor or local government. Additionally, homeowners may remove their lawns and replace them with water-wise plants. If a homeowner installs water-efficient landscaping during the drought, an HOA cannot prevent them from maintaining it or require them to remove it when there is no longer a drought state of emergency. An HOA also cannot prohibit, or include conditions that have the effect of prohibiting, the use of low water-using plants as a group or as a replacement

of existing grass. You can find the relevant text here: https://www.davis-stirling.com/HOME/Statutes/Civil-Code-4735.

Does the ban on watering decorative grass apply to HOAs?

Yes, the ban on using potable water to water decorative grass applies to some HOA landscapes, but only to decorative grass on property the HOA owns or maintains and not at individual residences (or separate interests). While an individual's property is considered residential, property owned or maintained by an HOA is treated the same as other landscapes owned by commercial or institutional entities. The regulation does not ban watering decorative grass with recycled water, watering grass regularly used for recreation or community activities, or watering trees or other non-grass plants.

In an HOA, who decides if grass is decorative?

An HOA should review areas of grass that it maintains, consult with residents, and determine whether the grass is decorative. Water suppliers may defer to HOAs' determinations that specific areas of grass are used for recreation or community events. However, water suppliers also retain the authority to enforce the watering ban if there is a documented violation.

Are apartment buildings considered part of the commercial, industrial, and institutional sectors?

Most apartment buildings are part of the residential sector and therefore not subject to the ban on watering decorative grass. However, apartment buildings may also include commercial facilities, such as ground floor businesses or other commercial operations on site, in the same manner as HOAs. Apartment building owners and managers should check with their water supplier to see whether their building or complex may be considered, in part, commercial, industrial, or institutional and would therefore have some landscaped areas subject to the same rules (and exclusions) as similarly situated landscaped areas in HOAs.

May property managers use recycled water or greywater to water decorative grass?

Yes, however the Board encourages people to prioritize watering trees and other plants due to the drought and the amount of water required for grass. Also, check with your local water supplier if they have stricter water use rules than the State Water Board.

Do the regulations affect trees? Do urban trees need to be watered?

The regulations do not restrict watering trees. The Board urges people to continue to water trees, even while reducing or stopping the watering of grass. Newly planted trees usually need to be watered more frequently than mature trees, including hand watering. Trees near or on decorative grass can still be watered even when individual sprinkler heads or zones that water only decorative grass must be turned off or capped. For more information about tree species and water needs, visit the Save Our Trees section within SaveOurWater.com.

Are there any exceptions to the ban on watering decorative grass?

The ban only applies to watering decorative grass in commercial, industrial, and institutional sectors and only applies to watering with potable water. It does not apply to residential grass or any grass that is regularly used for human recreational purposes, such as community spaces, or

sports fields and other grass regularly used for recreation or events. The regulation does not ban watering trees or other non-grass plantings. There also is an exemption process available for certain low water using grass species and watering approaches. To be exempt from the ban, an owner or manager must provide to their water supplier evidence that they have met two requirements: (1) the user must certify that the grass species needs low levels of water (a plant factor of 0.3 or less) and (2) the user must demonstrate that the grass is watered in a way that uses low levels of water (less than 40 percent of reference evapotranspiration). For more information on plant factors and reference evapotranspiration, see the State's Model Water Efficient Landscape Ordinance.

Is grass at cemeteries, parks, and golf courses considered decorative grass?

It depends. In general, grass on cemetery property is not wholly exempt from the ban on watering decorative grass. Cemetery operators may continue watering areas that are regularly used for community functions such as visitation and services. Watering areas that are not regularly used (e.g., fringe areas or historical areas that are no longer visited) should cease, unless using recycled water. These similarly apply to parks and golf courses.

Does the ban on watering decorative grass apply to watering with well water?

It depends. The ban on watering decorative grass only applies to watering with potable water. Well water that needs treatment to meet drinking water quality standards would be considered non-potable before that treatment. Well water that is used for drinking water purposes without treatment, on the other hand, would be covered by the ban.

Is watering grass that is required for effective measurements at California Irrigation Management Information System (CIMIS) stations prohibited?

No. CIMIS stations require well-irrigated and well-maintained cool season grass as a reference surface to produce accurate estimates of reference evapotranspiration (ET_0). Data from CIMIS stations are being used by over 60,000 primary registered users and thousands more secondary users for urban and agricultural irrigation scheduling purposes, and many other applications. Therefore, grass at CIMIS stations is not considered decorative.

Who will enforce the decorative grass watering ban?

Water suppliers and local governments are expected to communicate the ban on watering decorative grass to their commercial, industrial, and institutional customers. The emergency regulation makes violations of the ban an infraction; any entity that is already authorized to enforce infractions, such as a water supplier or local government, may choose to enforce violations of the regulation. In addition, anyone may report water waste, including watering decorative grass on a commercial, industrial, or institutional property, to the Board at SaveWater.CA.Gov. The Board may use its enforcement authority to respond to violations of the regulation.

What is covered by the “construction site preparation” prohibition?

The prohibition on using potable water does not apply to all uses of water for construction activities, specifically it does not apply to “construction site preparation” when “no other method can be used or as needed to protect the health and safety of the public.” Examples of these exclusions, for which the use of potable water is not prohibited, include activities such as mold removal when potable water must be used; and mixing of concrete or other solutions where adherence to manufacturers' requirements necessitate use of potable water; or where contamination from non-potable water would be detrimental to the structure, material, equipment, and clean up.

Water suppliers

Water suppliers should follow and communicate to their customers the requirements above. Below is information that is relevant to water suppliers specifically.

What should small water suppliers (under 3,000 connections) do?

The State Water Board encourages all water suppliers to continue doing all that they can for water conservation across California. Current statewide emergency water restrictions apply to all Californians regardless of whether they are served by an urban water supplier. However, all water suppliers may adopt more stringent conservation measures and are encouraged to develop their own progressive enforcement practices to promote conservation.

Are water suppliers still required to implement Level 2 demand reduction actions?

No. There is no longer a statewide emergency requirement for urban water suppliers to implement the Level 2 demand reduction actions of their own Water Shortage Contingency Plans, however water suppliers may adopt more stringent conservation measures locally.

STATEWIDE WATER RESTRICTIONS

FOR ALL CALIFORNIANS

IN EFFECT SINCE 2022

EMERGENCY REGULATIONS TO SAVE WATER

- ✗ No watering **decorative grass** in commercial, industrial, and institutional areas, including common areas of homeowners' associations (HOAs)
- ✗ No outdoor watering that lets **water run onto sidewalks** or other areas
- ✗ No washing **hard surfaces** that don't absorb water, like driveways or sidewalks
- ✗ No washing **vehicles** without using an automatic shutoff nozzle
- ✗ No outdoor watering within 48 hours after at least 1/4 inch of **rainfall**
- ✗ No using drinking water for **street cleaning** or **construction site preparation**
- ✗ No filling **decorative fountains, lakes, or ponds**

These regulations do not prohibit watering trees or using water for immediate health and safety needs.

Local water suppliers may have adopted stricter water conservation measures, so please check for additional restrictions in your area.

Violations may be punishable by fine up to $500 per day.

SAVE OUR WATER .com

Report potential water-use violations:
SaveWater.CA.Gov

Discover water-saving tips and ideas:
SaveOurWater.com

Learn more about these and other statewide water restrictions:
bit.ly/conservationreg

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