RESOLUTION NO. 2024-32
RESOLUTION NO. PFA-01
ORDINANCE NO. 2024-01

AGENDA

OUR MISSION

Protect, enhance, and develop Calaveras County's water resources and watersheds to provide safe, reliable, and cost-effective services to our communities.

2021-2026 Strategic Plan, Adopted April 28, 2021, and can be viewed at this link

Regular Board Meeting
Wednesday, June 12, 2024
1:00 p.m.

Calaveras County Water District
120 Toma Court
San Andreas, California 95249

Board Chambers are open to the public and the following alternative is available to members of the public who wish to participate in the meeting virtually:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 295 957 501 767

Passcode: 922DvY

Or call in (audio only)

+1 323-647-8603,,278504195#

Phone Conference ID: 278 504 195#

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Administration Office at 209-754-3028. Notification in advance of the meeting will enable CCWD to make reasonable arrangements to ensure accessibility to this meeting. Any documents that are made available to the Board before or at the meeting, not privileged or otherwise protected from disclosure, and related to agenda items, will be made available at CCWD for review by the public.

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

2. PUBLIC COMMENT

At this time, members of the public may address the Board on any non-agendized item. The public is encouraged to work through staff to place items on the agenda for Board consideration. No action can be taken on matters not listed on the agenda. Comments are limited to three minutes per person.

BOARD OF DIRECTORS

Russ Thomas, President — Bertha Underhill, Vice President
Cindy Secada, Director — Scott Ratterman, Director — Jeff Davidson, Director

3. CONSENT AGENDA

The following items are expected to be routine / non-controversial. Items will be acted upon by the Board at one time without discussion. Any Board member may request that any item be removed for later discussion.

3a Approval of Minutes for the Board Meeting of May 22 and May 29, 2024
(Rebecca Hitchcock, Clerk to the Board)

3b Review Board of Directors Monthly Time Sheets for May 2024
(Rebecca Hitchcock, Clerk to the Board)

3c Ratify Claim Summary #627 Secretarial Fund in the Amount of $3,185,548.85 for May 2024
(Jeffrey Meyer, Director of Administrative Services) **RES 2024-_____**

3d Approval of Whistleblower Protection Policy
(Stacey Lollar, Humas Resources Manager) **RES 2024-_____**

4. PUBLIC HEARING

4a Discussion/Action regarding the Adoption of the Fiscal Year 2024-25 Operating and Capital Improvement Plan Budget
(Jeffrey Meyer, Director of Administrative Services) **RES 2024-_____**

Discussion/Action regarding the Adoption of the Fiscal Year 2024-25 Personnel Allocation Budget
(Jeffrey Meyer, Director of Administrative Services) **RES 2024-_____**

5. NEW BUSINESS

5a Discussion/Action on issuing a Contract Amendment to PBI Engineers for Design and Engineering of the Lake Tulloch Intertie Project, CIP#11104
(Sam Singh, Engineering Technician) **RES 2024-_____**

5b Discussion/Action regarding Award of Engineering and Design Contract for the Huckleberry Lift Station Improvement Project, CIP#15092
(Sam Singh, Engineering Technician) **RES 2024-_____**

6. REPORTS

6a Report on the May 2024 Operations Department
(Pat Burkhardt, Construction and Maintenance Manager)

6b* General Manager's Report
(Michael Minkler)

7.* BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

8. NEXT BOARD MEETINGS

- Wednesday, June 26, 2024, 1:00 p.m., Regular Board Meeting
- Wednesday, July 10, 2024, 1:00 p.m., Regular Board Meeting

9. CLOSED SESSION

9a Government Code § 54957.6 Agency Negotiators: General Manager Michael Minkler, HR Manager Stacey Lollar regarding Negotiations with Employee Organization SEIU Local 1021

9b Conference with Legal Counsel-Existing Litigation
Government Code 54956.9(d)(1)
California Sportfishing Protection Alliance v. All persons interested in the matter of the validity of the Eastern San Joaquin Groundwater Subbasin groundwater sustainability plan et al. (Stanislaus County Superior Court Case # CV20-1720)

9c Conference with Legal Counsel – Anticipated Litigation. Significant exposure to litigation pursuant to subdivision (d)(2) of Government Code section 54956.9. - two potential case

10. REPORTABLE ACTION FROM CLOSED SESSION

11. ADJOURNMENT

CALAVERAS COUNTY WATER DISTRICT

Board of Directors

District 1	Scott Ratterman
District 2	Cindy Secada
District 3	Bertha Underhill
District 4	Russ Thomas
District 5	Jeff Davidson

Legal Counsel

Matthew Weber, Esq.
Downey Brand, LLP

Financial Services

Umpqua Bank
US Bank
Wells Fargo Bank

Auditor

Richardson & Company, LLP

CCWD Committees / Membership**

*Engineering Committee	Thomas / Davidson (alt. Secada)
*Finance Committee	Secada / Underhill (alt. Thomas)
*Legal Affairs Committee	Ratterman / Davidson (alt. Thomas)
*External Relations Committee	Thomas / Secada (alt. Underhill)
Real Estate Review Committee (ad hoc)	Thomas / Ratterman

Joint Power Authorities

ACWA / JPIA	Ratterman (alt. Michael Minkler)
CCWD Public Financing Authority	All Board Members
Calaveras-Amador Mokelumne River Authority (CAMRA)	Ratterman / Secada (alt: Michael Minkler)
Calaveras Public Power Agency (CPPA)	Michael Minkler (alt. Damon Wyckoff)
Eastern San Joaquin Groundwater Authority	Thomas
Tuolumne-Stanislaus Integrated Regional Water Management Joint Powers Authority (T-Stan JPA)	Underhill (alt. Thomas)
Upper Mokelumne River Watershed Authority (UMRWA)	Davidson (alt. Ratterman)

Other Regional Organizations of Note

Calaveras County Parks and Recreation Committee	Thomas (alt. Ratterman)
Mountain Counties Water Resources Association (MCWRA)	All Board Members
Mokelumne River Association (MRA)	All Board Members
Tuolumne-Stanislaus Integrated Regional Water Mgt. Watershed Advisory Committee to the JPA (WAC)	Kelly Gerkensmeyer (alt: Juan Maya)
Eastern San Joaquin Groundwater Authority-Technical Advisory Committee	Mark Rincon-Ibarra (alt: Sam Singh)

* Standing committees, meetings of which require agendas & public notice 72 hours in advance of meeting.
** The 1st name listed is the committee chairperson.

MINUTES

CALAVERAS COUNTY WATER DISTRICT
REGULAR BOARD MEETING

MAY 22, 2024

Directors Present:	Russ Thomas President Bertha Underhill, Vice-President Scott Ratterman, Director Cindy Secada, Director Jeff Davidson, Director
Staff Present:	Michael Minkler, General Manager Matt Weber Esq, General Counsel Rebecca Hitchcock, Clerk to the Board Damon Wyckoff, Director of Operations John Coleman, Water Resources Manager Kelly Gerkensmeyer, External Affairs Manager Jeffrey Meyer, Director of Administrative Services* Kelly Richards, Business Services Manager* Stacey Lollar, Human Resources Manager* Mark Rincon-Ibarra, District Engineer* Kevin Williams, Senior Civil Engineer* Joe Darby, Senior Distribution Worker* Haley Airola, Engineering Coordinator* Dylan Smith, IT Technician* Corinne Skrbina, Customer Service* Kate Darby, Customer Service* Tiffany Burke, Administrative Technician* Michael Bear, Accountant* Kylie Muetterties, Accountant* Kelly Soulier-Doyle, Accounting Technician* Bana Rouson-Gedese, Water Resources Specialist*
Others Present:	Michael Castro Michael Rodgers Francisco de la Cruz*

*Attended Virtually

DRAFT

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

President Thomas called the Regular Board Meeting to order at 1:00 p.m. and led the Pledge of Allegiance. All Directors were present.

2. PUBLIC COMMENT

No public comment was heard.

3. CONSENT AGENDA

3a Approval of Minutes for the Board Meeting of April 24, 2024
(Rebecca Hitchcock, Clerk to the Board)

3b Review Board of Directors Monthly Time Sheets for April 2024
(Rebecca Hitchcock, Clerk to the Board)

Director Underhill pulled Item 3c from the Consent Agenda

3c Ratify Claim Summary #626 Secretarial Fund in the Amount of $2,933,821.93 for April 2024
(Jeffrey Meyer, Director of Administrative Services) **RES 2024-_____**

3d Report on the Monthly Investment Transactions for April 2024
(Jeffrey Meyer, Director of Administrative Services)

3e Approval of Second Amendment to Cell Tower Lease between CCWD and Pinnacles Cellular, Inc. dba Verizon Wireless
(Rebecca Hitchcock, Clerk to the Board) **RES 2024-27**

3f Approval of Credit Adjustment for APN 023-057-004
(Kelly Richards, Business Services Manager) **RES 2024-28**

3g Approval of Credit Adjustment for APN 028-033-047
(Kelly Richards, Business Services Manager) **RES 2024-29**

MOTION: Director Davidson moved to approve the Consent Agenda Items 3a, 3b, 3d, 3e, 3f, and 3g as presented and Director Ratterman seconded the motion, and it was approved (5-0).

PUBLIC COMMENT: No public comment was heard.

AYES: **Directors Davidson, Ratterman, Secada, Underhill, and Thomas**
NOES: **None**
ABSTAIN: **None**
ABSENT: **None**

OFF CONSENT AGENDA

Director Underhill pulled Item 3c from the Consent Agenda

3c Ratify Claim Summary #626 Secretarial Fund in the Amount of $2,933,821.93 for April 2024
(Jeffrey Meyer, Director of Administrative Services) **RES 2024-30**

DISCUSSION: Director Underhill recommended other Directors reach out to staff prior to the meeting with questions on the Claim Summary.

PUBLIC COMMENT: Public comment was given by Mike Castro.

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MOTION: Director Underhill moved to adopt Resolution No. 2024-30 Ratifying Claim Summary #626, Director Ratterman seconded the motion, and it was approved (5-0).

AYES: Directors Underhill, Ratterman. Davidson, Secada, and Thomas
NOES: None
ABSTAIN: None
ABSENT: None

4. CONVENE PUBLIC FINANCING AUTHORITY

The Public Financing Authority convened at approximately 1:11pm.

4a Roll Call: Calaveras County Water District Public Financing Authority Board Members

All Members were present.

4b Discussion/Action regarding 2024 Biennial Review of the Public Finance Authority's Conflict of Interest Code
(Michael Minkler, General Manager)

DISCUSSION: President Thomas reviewed the item stating no changes were necessary to the Conflict of Interest Policy.

PUBLIC COMMENT: No public comment was heard.

MOTION: Director Davidson moved by Minute entry to Approve the 2024 Biennial Review of the Public Finance Authority's Conflict of Interest Code, Director Ratterman seconded the motion, and it was approved (5-0).

AYES: Directors Davidson, Ratterman. Underhill, Secada, and Thomas
NOES: None
ABSTAIN: None
ABSENT: None

4c Adjournment: The Public Financing Authority adjourned at approximately 1:12pm.

5. RECONVENE REGULAR BOARD MEETING

President Thomas reconvened the Regular Board Meeting to order at 1:12pm

6. NEW BUSINESS

6a Hydrological Conditions Update
(Kelly Gerkensmeyer, External Affairs Manager)

DISCUSSION: Kelly Gerkensmeyer gave a presentation on the current hydrological conditions in the County and responded to questions from the Board.

PUBLIC COMMENT: No public comment was heard.

DRAFT

7. REPORTS

7a Report on the April 2024 Operations Department
(Damon Wyckoff, Director of Operations)

DISCUSSION: Damon Wyckoff presented the April 2024 Monthly Operations report. He reviewed items of interest and answered questions from the Board.

PUBLIC COMMENT: Public comment was given by Michael Castro.

7b General Manager's Report
(Michael Minkler)

Mr. Minkler reported on the following activities: 1) the Angels Camp City Council approved the collaborative water supply partnership; 2) the new IT Technician, Quentin Smith and new Water Resources Specialist, Bana Rousan-Gedese; 3) the North Fork Project; 4) budget development; 4) a second Slurry Line customer has applied for service; 5) the Army Corps of Engineers $11.2 million funding; 6) presentations given by External Affairs Manager Kelly Gerkensmeyer; 7) the ACWA Conference; 8) the ad hoc Real Estate Review Committee; 9) the County 2x2 meeting; 10) the Incident Command System (ICS) training with staff; 11) the External Relations Committee meeting; 12) a meeting with the Tuolumne Utility District; 12) the upcoming Legal Affairs and Engineering Committee meetings; 13) the Valley Springs Town Hall; and 13) the Mountain Counties reception and Board meeting.

PUBLIC COMMENT: Public comment was given by Francisco de la Cruz and Michael Castro.

8. BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

Director Secada reported on the ACWA Conference.

Director Underhill reported on the presentation Kelly Gerkensmeyer gave to the White Pines Park Committee.

Director Ratterman reported on the ACWA Conference, the Mountain Counties Legislative Day, the Army Corp Funding, and the Real Estate Review Committee. He also requested the Directors from each Committee report activities during Board meetings.

Director Davidson reported on the Washington, D.C. meetings, the Army Corps Funding, and FERC Kick-off meeting, and cyber security.

Director Thomas reported on the ACWA Conference.

9. NEXT BOARD MEETINGS

- Wednesday, May 29, 2024, 1:00 p.m., Special Budget Workshop
- Wednesday, June 12, 2024, 1:00 p.m., Regular Board Meeting
- Wednesday, June 26, 2024, 1:00 p.m., Regular Board Meeting

10. CLOSED SESSION

The meeting adjourned into Closed Session at approximately 2:45 p.m. Those present were Board Members: Scott Ratterman, Cindy Secada, Russ Thomas, Bertha Underhill, and Jeff Davidson; staff

DRAFT

members Stacey Lollar, Human Resources Manager (for item 10a), Michael Minkler, General Manager; and General Counsel Matt Weber.

10a Government Code § 54957.6 Agency Negotiators: General Manager Michael Minkler, HR Manager Stacey Lollar regarding Negotiations with Employee Organization SEIU Local 1021 and Management and Confidential Unit

10b Existing Litigation-Government Code Section 54956.9(d)(1)
Pacific Gas and Electric Company v. DKM, LLC et al. Calaveras County Superior Court Case Number 24CV47310

10c Conference with Legal Counsel – Anticipated Litigation. Significant exposure to litigation pursuant to subdivision (d)(2) of Government Code section 54956.9. - one potential case

11. REPORTABLE ACTION FROM CLOSED SESSION

The Board reconvened into Open Session at approximately 3:40 p.m. There was no reportable action.

12. ADJOURNMENT

With no further business, the meeting adjourned at approximately 3:40 p.m.

By: ATTEST:

_____ _____

Michael Minkler
General Manager

Rebecca Hitchcock
Clerk to the Board

DRAFT

MINUTES

CALAVERAS COUNTY WATER DISTRICT
SPECIAL BOARD MEETING

MAY 29, 2024

Directors Present:	Russ Thomas President Bertha Underhill, Vice-President Scott Ratterman, Director Cindy Secada, Director Jeff Davidson, Director
Staff Present:	Michael Minkler, General Manager Matt Weber Esq, General Counsel Rebecca Hitchcock, Clerk to the Board Damon Wyckoff, Director of Operations John Coleman, Water Resources Manager Jeffrey Meyer, Director of Administrative Services Stacey Lollar, Human Resources Manager Mark Rincon-Ibarra, District Engineer Kevin Williams, Senior Civil Engineer Kelly Gerkensmeyer, External Affairs Manager* Kate Jesus, Human Resources Technician* Joe Darby, Senior Distribution Worker* Haley Airola, Engineering Coordinator* Dylan Smith, IT Administrator* Quentin Smith, IT Technician* Robin Patolo, Customer Service* Tiffany Burke, Administrative Technician* Michael Bear, Accountant* Kylie Muetterties, Accountant* Kelly Soulier-Doyle, Accounting Technician* Bana Rouson-Gedese, Water Resources Specialist*
Others Present:	Ralph Copeland Scott Nelson, Eide Baily* Francisco de la Cruz*

*Attended Virtually

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

President Thomas called the Regular Board Meeting to order at 1:02 p.m. and led the Pledge of Allegiance. All Directors were present.

2. PUBLIC COMMENT

No public comment was heard.

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3. BUDGET WORKSHOP

3a Discussion/Direction Regarding Preliminary FY 2024-25 Operating and Capital Improvement Program (CIP) Budgets
(Jeffrey Meyer, Director of Administrative Services)

DISCUSSION: Jeffrey Meyer provided an overview of the Preliminary FY 2024-25 Operating and Capital Improvement Program (CIP) Budgets and responded to questions from the Board. The overview consisted of:

- The significant changes to the structure
  - A new rate structure and updated presentation of revenues and expenditures
  - The addition of a new hydroelectric fund
  - Rate revenue in the operating budget incorporates all rate revenue, including infrastructure funding previously segregated as R&R income.
  - Integrating fund balances for the budget process and long-term planning for water, wastewater, and hydroelectric
- He then provided details on:
  - Revenues
  - Expenditures
  - Staffing
  - Capital Outlay
  - Debt Service
  - Capital Improvement Program

RECESS was called at 2:32 p.m. **SESSION RESUMED** at 2:40 p.m.

The Board provided feedback on the preliminary budget and requested a policy for the new hydroelectric fund.

PUBLIC COMMENT: Public comments were given by Ralph Copeland.

Director Underhill left the meeting at 3:15 p.m.

4. REPORTS

4a General Manager's Report
(Michael Minkler)

Mr. Minkler thanked all involved for the hard work on the preliminary budget.

5. BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

Director Ratterman reported on the MCWRA Reception on June 6th and the Board meeting following on June 7th.

Director Davidson had nothing to report.

Director Secada thanked staff for their work on the budget and their responsiveness to her questions.

Director Thomas had nothing to report.

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6. NEXT BOARD MEETINGS

- Wednesday, June 12, 2024, 1:00 p.m., Regular Board Meeting
- Wednesday, June 26, 2024, 1:00 p.m., Regular Board Meeting

7. ADJOURNMENT

With no further business, the meeting adjourned at approximately 3:31 p.m.

By:	ATTEST:
_____	_____
Michael Minkler General Manager	Rebecca Hitchcock Clerk to the Board

DRAFT

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Rebecca Hitchcock, Clerk to the Board

SUBJECT: Review Board of Directors Time Sheets for May 2024

RECOMMENDED ACTION:

For information only.

SUMMARY:

Pursuant to direction from the Board of Directors, copies of the Board's monthly time sheets, which the Board is compensated from, are included in the monthly agenda package for information. Attached are copies of the Board's time sheets for the month of May 2024.

Board Members can be reimbursed for mileage cost to travel to meetings/conferences and are paid at the current IRS rate.

FINANCIAL CONSIDERATIONS:

Monthly compensation and mileage reimbursement costs are included in the FY 23-24 budget.

STRATEGIC PLAN INTIATIVES:

FR-08 Communicate the District's fiscal obligations and accountability to our customers through transparency and effective public outreach.

Attachments: Board of Directors Time Sheets for May 2024

CALAVERAS COUNTY WATER DISTRICT
2024 DIRECTOR REIMBURSEMENT FORM

For Admin Use	Payroll	X
	Expense	

Month/Yr May 2024

Name S. Rafferman

Activity Date	Meeting or Other Expense Description	Designated Rep. Yes	Designated Rep. No	Association List Yes	Association List No	Prior Approval Yes	Prior Approval No	Cost Meeting	Cost Expense	Total Miles
4-26	JPIA Exec Mtg. - Virtual							$120.-		
5-3	CCWD Real Estate ad hoc Mtg							120.-		7
5-5	JPIA Member Summit Dinner									
5-6	JPIA Meetings - Sacto									
5-7	JPIA Member Summit									
5-8	ACWA Spring Conf. - Sacto							120.-		
5-10	Mt. Counties - Prep Meeting									
5-13	CCWD OC Virtual Visits							120.-		
5-13	JPIA Pooling Academy Mtg.									
5-14	CCWD OC Virtual Visits							120.-		
5-15	Mt. Counties Leg Advocacy Day & Reception							120.-		136
5-20	Mt. Counties Planning Mtg. MH									
5-22	CCWD Reg. Mtg.							120.-		7
Total	For Totals line, multiply miles by the IRS rate:	1/1/2024	$0.670							150
	Pursuant to Board Policy 4030, receipts required; report /materials required.							Totals (use IRS mileage rate)		
								$840.-		$100.50

The undersigned, under penalty of perjury states: This claim and the items set forth herein are true and correct; that expenses incurred, meetings attended and business conducted are necessary to District affairs; that this claim is proper and within the scope of California Water Code Section 20200 et seq, and District Ordinance 2015-02; that the service was actually rendered; and that the amount(s) herein are justly true.

Signature of Claimant: [signature]

Administrative Review: [signature] **Date:** 5/24/24

Orig to Finance Dept.

CALAVERAS COUNTY WATER DISTRICT
2023 DIRECTOR REIMBURSEMENT FORM

For Admin Use	
Payroll	
Expense	

Month/Yr: May-24

Name: Cindy Secada

Activity Date	Meeting or Other Expense Description	Designated Rep. Yes	Designated Rep. No	Association List Yes	Association List No	Prior Approval Yes	Prior Approval No	Cost Meeting	Cost Expense	Total
7-May	ACWA Spring Conference 2024 Attendence							120		
8-May	ACWA Spring Conference 2024 Attendence							120		
9-May	ACWA Spring Conference 2024 Attendence									190
9-May	ACWA Spring Conference 2024 Mileage									
22-May	CCWD Regular Meeting							120		38.7
23-May	Finance Committee	X						120		38.7
28-May	External Relations Committee	X						120		38.7
29-May	Special Budget WorkshopRegular Board Meeting							120		38.7
Total	*For Totals line, multiply miles by the IRS rate:*	1/1/2023	$0.670						0	344.8
				Totals	*(use IRS mileage rate)*			$720.00	$0.00	$231.02

Pursuant to Board Policy 4030, receipts required; report /materials required.

The undersigned, under penalty of perjury states: This claim and the items set forth herein are true and correct; that expenses incurred, meetings attended and business conducted are necessary to District affairs; that this claim is proper and within the scope of California Water Code Section 20200 et seq, and District Ordinance 2015-02; that the service was actually rendered; and that the amount(s) herein are justly true.

Signature of Claimant: Cindy Secada

Administrative Review: _____ **Date:** 5/24/24

Orig to Finance Dept.

CALAVERAS COUNTY WATER DISTRICT
2024 DIRECTOR REIMBURSEMENT FORM

For Admin Use	Payroll ⊘
	Expense

Month/Yr: May-24

Name: Bertha Underhill

Activity Date	Meeting or Other Expense Description	Designated Rep. Yes	Designated Rep. No	Association List Yes	Association List No	Prior Approval Yes	Prior Approval No	Cost Meeting	Cost Expense	Total Miles
1-May	UWPA Board Meeting							120		38
14-May	Ebbetts Pass Veterans District Meeting	x						0		0
20-May	WPPC							120		0
22-May	CCWD Regular Board Meeting							120		64
29-May	CCWD Budget Workshop							120		64
Total	***For Totals line, multiply miles by the IRS rate:***	1/1/2024	$0.670						0	166
Pursuant to Board Policy 4030, receipts required; report /materials required.								Totals *(use IRS mileage rate)*	$480.00	$0.00	$111.22

The undersigned, under penalty of perjury states: This claim and the items set forth herein are true and correct; that expenses incurred, meetings attended and business conducted are necessary to District affairs; that this claim is proper and within the scope of California Water Code Section 20200 et seq, and District Ordinance 2015-02; that the service was actually rendered; and that the amount(s) herein are justly true.

Signature of Claimant: Bertha Underhill

Administrative Review: _____ **Date:** 5/24/24

Orig to Finance Dept.

CALAVERAS COUNTY WATER DISTRICT
2024 DIRECTOR REIMBURSEMENT FORM

For Admin Use		
	Payroll	X
	Expense	

Month/Yr: May-24

Name: Russ Thomas

Activity Date	Meeting or Other Expense Description	Designated Rep. Yes	Designated Rep. No	Association List Yes	Association List No	Prior Approval Yes	Prior Approval No	Cost Meeting	Cost Expense	Total Miles
24-Apr	CCWD Regular Meeting							120		44
25-Apr	Lunch Meeting with County Representatives							120		44
3-May	Property Adhoc Committee							120		44
7-May	Day #1 ACWA Conference							120		
8-May	Day #2 ACWA Conference							120		
9-May	Day #3 ACWA Conference							120		192
Total	*For Totals line, multiply miles by the IRS rate:*	1/1/2024	$0.670						0	324
	Pursuant to Board Policy 4030, receipts required; report /materials required.			*Totals* (use IRS mileage rate)				$720.00	$0.00	$217.08

The undersigned, under penalty of perjury states: This claim and the items set forth herein are true and correct; that expenses incurred, meetings attended and business conducted are necessary to District affairs; that this claim is proper and within the scope of California Water Code Section 20200 et seq, and District Ordinance 2015-02; that the service was actually rendered; and that the amount(s) herein are justly true.

Signature of Claimant: Russ Thomas

Administrative Review: _____ **Date:** 5/24/24

Orig to Finance Dept.

CALAVERAS COUNTY WATER DISTRICT
2024 DIRECTOR REIMBURSEMENT FORM

For Admin Use	Payroll ⊘ / Expense

Month/Yr: May-24

Name: Jeff Davidson

Activity Date	Meeting or Other Expense Description	Designated Rep. Yes	Designated Rep. No	Association List Yes	Association List No	Prior Approval Yes	Prior Approval No	Cost Meeting	Cost Expense	Total Miles
13-May	Legislative Meetings-Virtual	X						120		0
14-May	Legislative Meetings-Virtual	X						120		0
20-May	NF Project meeting							120		28
22-May	CCWD Regular Board Meeting							120		28
29-May	CCWD Budget Workshop							120		28
Total	***For Totals line, multiply miles by the IRS rate:***	1/1/2024	$0.670						0	84
Pursuant to Board Policy 4030, receipts required; report /materials required.				*Totals* (use IRS mileage rate)				$600.00	$0.00	$56.28

The undersigned, under penalty of perjury states: This claim and the items set forth herein are true and correct; that expenses incurred, meetings attended and business conducted are necessary to District affairs; that this claim is proper and within the scope of California Water Code Section 20200 et seq, and District Ordinance 2015-02; that the service was actually rendered; and that the amount(s) herein are justly true.

Signature of Claimant: Jeff Davidson

Administrative Review: _____ **Date:** 5/24/24

Orig to Finance Dept.

Calaveras County Water District
Claim Summary #627
April 2024 vs May 2024

	Apr 2024	May 2024
CCWD Operating Expenditures	1,022,942.79	1,053,153.28
Expenditures to be reimbursed/Fiduciary Payments	284,829.82	32,618.58
Capital Improvement Program Projects	945,476.53	1,504,454.35
Capital Outlay	-	0.00
Sub-Total Vendor Payments	**2,253,249.14**	**2,590,226.21**
Payroll Disbursed	677,148.94	590,831.98
Other EFT Payments	3,423.85	4,490.66
Total Disbursements	**2,933,821.93**	**3,185,548.85**

Project No.	CIP Projects Project Description	Total Project Budget	FY 23-24 Budgeted Cash Flow	May Expenditures Plus Labor	FY 23-24 Total Expenditures	Total Expenditures to Date	Remaining Project Balance
WATER							
Copper Cove							
11083C	Clearwell & Tank B / Repair & Paint	8,600,000	4,000,000	452,166	2,457,207	2,889,561	5,710,439
11122	CC Zone B-C Trans Pipeline & Pump Station	10,000,000	1,000,000	77,550	287,430	382,687	9,617,313
11132	Copper Cove O'Byrnes Water Line Extension	60,000	-	7,367	7,367	31,325	28,675
Jenny Lind / Wallace							-
11088	JL Tanks A-B Trans Line	13,500,000	2,000,000	12,165	264,309	842,109	12,657,891
West Point / Wilseyville							
11106	West Point Backup Water Filter	2,380,000	561,097	9,025	707,521	2,824,365	(444,365)
Other							-
11101	District Corp Yard	-	110,000	182	111,166	2,646,773	(2,646,773)
WASTEWATER							
Arnold / Forest Meadows							
15095	Arnold Secondary Clarifier	8,000,000	1,000,000	19,949	77,578	670,457	7,329,543
Copper Cove							
15076	CC L/S #6, 8 & Force Main Bypass	5,500,000	3,000,000	113,669	410,713	3,433,011	2,066,989
15080	CC L/S #15 & 18 Renovations	3,600,000	3,100,000	39,766	4,661,908	2,783,235	816,765
15094T	CC Tertiary/UV Improvements	1,996,190	735,238	32,451	128,252	534,174	1,462,016
West Point / Wilseyville / Vallecito							
15091	West Point/Wilseyville Consol Constr	10,000,000	5,000,000	778,076	3,759,137	5,927,561	4,072,439

CCWD - AP DISBURSEMENTS
MAY 1-31, 2024

	Vendor	Description	Check Date	Check No	Amount
1	A T & T	Ref#2097850520 Long Distance Copper Reclaim 04/24	05/01/24	144506	92.96
2	A T & T	Lease Acct#23584106903335 05/24	05/03/24	144584	63.15
3	A T & T	Acct#27318536357 IT Phone 05/24	05/03/24	144585	130.92
4	A T & T	Internet Service Acct#129469186 04/24	05/03/24	144586	85.60
5	A T & T	Acct#9391054579 Warehouse	05/22/24	144641	56.69
6	A T & T CALNET 3	Acct#9391067346 Camp Connell 04/24	05/03/24	144587	213.90
7	A T & T CALNET3	Acct#9391029200 Dorrington 05/24	05/22/24	144642	29.12
8	A T & T CALNET3	Acct#9391029201 District Wide 05/24	05/22/24	144643	1,517.66
9	A T & T CALNET3	Acct#9391032214 JLTC 05/24	05/22/24	144644	145.44
10	A T & T CALNET3	Acct#9391029194 OP HQ Long Distance	05/22/24	144645	406.18
11	A T & T CALNET3	Acct#939129198 Hunters 05/24	05/22/24	144646	29.65
12	A T & T CALNET3	Acct#9391032216 Azalea L/S 05	05/22/24	144647	27.56
13	A T & T CALNET3	Acct#9391029197 CC Whse 05/24	05/22/24	144648	1.46
14	A T & T CALNET3	Acct#9391032215 T Line 05/24	05/22/24	144649	155.55
15	A T & T CALNET3	Act#9391029199 JLTC 05/24	05/22/24	144650	29.12
16	A T & T MOBILITY	Internet Service 04/25 SR	05/01/24	144507	267.33
17	A TEEM ELECTRICAL ENG INC	Electrical Eng Construction Services, CC Lift Station, CIP 15076	05/03/24	144588	2,790.00
18	A TEEM ELECTRICAL ENG INC	Electrical Eng Construction Services, WP Backup Water Filter, CIP 11106	05/03/24	144588	2,620.00
19	ACWA/JPIA	Dental 06/24	05/08/24	144559	5,902.64
20	ACWA/JPIA	EAP 06/24	05/08/24	144559	161.20
21	ACWA/JPIA	Retiree Dental 06/24	05/08/24	144559	3,432.20
22	ACWA/JPIA	Retiree Vision 06/24	05/08/24	144559	946.56
23	ACWA/JPIA	Vision 06/24	05/08/24	144559	1,280.64
24	ADP INC	Payroll Processing	05/01/24	144508	4,020.70
25	AFLAC	Acct#JJ325 04/24	05/01/24	144509	1,367.09
26	ANGELS SEWER & DRAIN SERVICE, Inc	Broken Toilet Valve - OPS HQ	05/22/24	144651	185.00
27	AQUIONICS, INC	UV Controller - DC VCTO	05/01/24	144510	5,931.98
28	ARNOLD AUTO SUPPLY	Repair Parts EP	05/03/24	144590	74.00
29	ARNOLD TIRE AND AUTO CARE	Tires De-Studded V740	05/03/24	144591	80.00
30	ARNOLD TIRE AND AUTO CARE	Tires V551	05/03/24	144591	1,519.46
31	C/O M&T Bank NEW YORK LIFE	Life Insurance 05/24	05/03/24	144625	1,800.24
32	CALAVERAS AUTO SUPPLY	Battery - G46	05/03/24	144592	286.41
33	CALAVERAS AUTO SUPPLY	Oil Filter V722	05/03/24	144592	9.26
34	CALAVERAS AUTO SUPPLY	Service Parts Shop	05/03/24	144592	163.72
35	CALAVERAS AUTO SUPPLY	Service Parts V722	05/03/24	144592	469.01
36	CALAVERAS AUTO SUPPLY	Tools - V747	05/03/24	144592	158.70
37	CALAVERAS COUNTY PUBLIC WORKS	County Inspections Dist Corp Yard, CIP 11101	05/22/24	144653	182.17
38	CALAVERAS COUNTY PUBLIC WORKS	County Inspections Various Locations March & April 2024	05/22/24	144653	433.16
39	CALAVERAS LUMBER CO INC	Electrical Stock V720	05/03/24	144593	107.28
40	CALAVERAS LUMBER CO INC	Fencing Materials - Hogan Dam Rd	05/03/24	144593	103.39
41	CALAVERAS LUMBER CO INC	Materials & Supplies - Collection Crew	05/03/24	144593	115.40
42	CALAVERAS LUMBER CO INC	Utility Crew - Clamps. Adapters for Project	05/03/24	144593	21.84

	Vendor	Description	Check Date	Check No	Amount
43	CALAVERAS MINI-STORAGE	Tenant 197673 Storage Rental 05/24	05/01/24	144512	200.00
44	CALPERS - RETIREMENT	CalPERS Retirement 04/30/2024 Payroll	05/07/24	EFT	55,110.36
45	CALPERS - RETIREMENT	CalPERS Retirement 5/15/2024 Payroll	05/20/24	EFT	55,216.80
46	CALPERS - RETIREMENT	CalPERS Late Fees	05/29/24	EFT	200.00
47	CALPERS (Def Comp)	Def Comp Disbursement 04/30/2024 Payroll	05/07/24	EFT	8,939.27
48	CALPERS (Def Comp)	Def Comp Disbursement 05/15/2024 Payroll	05/20/24	EFT	8,659.27
49	CALPERS (Health Ins)	Health Insurance 05/24, Employees	05/01/24	EFT	175,827.50
50	CALPERS (Health Ins)	Health Insurance 05/24, Retirees	05/01/24	EFT	9,420.00
51	CAMPORA	Acct#5118051 Tank Rental WP WWTP (Sandy Gulch)	05/03/24	144594	70.00
52	CARBON COPY INC	Copies 04/24	05/08/24	144560	117.14
53	CENTRAL VALLEY HARDWARE CO	Locks - District	05/01/24	144513	252.90
54	CHIMENTE, THOMAS	Safety Boot Reimbursement FY 23-24	05/03/24	144595	200.00
55	CITY OF ANGELS	Sewer Service Six Mile Village 04/24	05/01/24	144514	3,689.76
56	CLARK PEST CONTROL INC	Pest Control Acct#1505308 Hunters	05/08/24	144561	121.00
57	CLARK PEST CONTROL INC	Pest Control #1297711 West Point WTP	05/03/24	144596	135.00
58	CLARK PEST CONTROL INC	Pest Control #1768120 Wilseyville WWTP	05/03/24	144596	163.00
59	CLARK PEST CONTROL INC	Pest Control #2120969 Wallace	05/03/24	144596	151.00
60	CLARK PEST CONTROL INC	Pest Control #688236 Southworth WWTP	05/03/24	144596	107.00
61	CLARK PEST CONTROL INC	Pest Control #807360 La Contenta	05/03/24	144596	106.00
62	CLARK PEST CONTROL INC	Pest Control #807402 JL WWTP	05/03/24	144596	83.00
63	CLARK PEST CONTROL INC	Pest Control #807549 JL WTP	05/03/24	144596	81.00
64	COATING SPECIALIST AND INJECTION SERVICES	Coating Inspection Services (CSI) CC Clearwell Tank B, CIP 11083C	05/01/24	144515	9,049.00
65	COLEMAN ENGINEERING, INC.	Engineering/Design Services Jenny Lind A-B Trans Line, CIP 11088	05/08/24	144562	9,077.89
66	COLEMAN, JOHN	Mileage Reimbursement	05/01/24	144516	16.88
67	COLEMAN, JOHN	04/24 Meetings Travel Expense Reimbursement	05/22/24	144655	195.68
68	COLEMAN, JOHN	ACWA Travel Expenses Reimbursement	05/22/24	144655	745.76
69	COLUMBIA COMMUNICATIONS	Vehicle Cloud Service 04/24	05/03/24	144597	780.00
70	CONDOR EARTH TECHNOLOGIES INC	FY 23/24 Groundwater Monitoring - District Wide 04/24	05/03/24	144598	5,821.00
71	CONFIDENTIAL	Retiree Medical Reimbursement 05/24	05/01/24	144511	1,527.86
72	CONFIDENTIAL	Retiree Medical Reimbursement 05/24	05/01/24	144517	739.30
73	CONFIDENTIAL	Retiree Medical Reimbursement 05/24	05/01/24	144525	291.15
74	CONFIDENTIAL	Retiree Medical Reimbursement 06/24	05/22/24	144652	1,527.86
75	CONFIDENTIAL	Retiree Medical Reimbursement 06/24	05/22/24	144656	739.30
76	CONFIDENTIAL	Retiree Medical Reimbursement 06/24	05/22/24	144661	291.15
77	COPPER AUTO & MARINE	Repair Parts - CC	05/03/24	144599	332.79
78	CPPA	Power District Wide 04/24	05/03/24	144600	134,357.25
79	CPPA	Power OP HQ 04/24	05/03/24	144600	1,264.00
80	CPUD	Water Service Corp Yard 04/24	05/01/24	144518	118.57
81	CPUD	Water Service OP HQ 04/24	05/01/24	144518	368.56
82	CRISLIP, MATHEW	Safety Boot Reimbursement FY 23/24	05/01/24	144519	159.80
83	CUSTOM ROOF CRAFTERS	Roof - JLWTP Tank	05/03/24	144601	825.00
84	CWEA	CSM1 Renewal - Darby	05/01/24	144520	98.00

CCWD - AP DISBURSEMENTS
MAY 1-31, 2024

	Vendor	Description	Check Date	Check No	Amount
85	CWEA	CSM2 Re-Test Application - Sage	05/01/24	144520	207.00
86	CWEA	Membership Renewal - Burke	05/08/24	144563	221.00
87	CWEA	Membership Renewal - Cyr	05/08/24	144563	221.00
88	CWEA	Membership Renewal - Roeder	05/08/24	144563	221.00
89	CWEA	Membership Renewal - Skrbina	05/08/24	144563	221.00
90	CWEA	Membership Renewal - Burkhardt	05/22/24	144657	221.00
91	DAVIDSON, JEFF	Travel 04/24	05/01/24	144521	62.98
92	DE LAGE LANDEN FINANCIAL SRVC INC	Copier Lease	05/31/24	EFT	294.71
93	DEVINE, JOHN	Consulting Services 03/03/24-05/04/24	05/08/24	144564	6,200.00
94	DEVINE, JOHN	Consulting Services 01/01/24-03/02/24	05/03/24	144602	16,000.00
95	DOCUSIGN INC	Annual DocuSign Contract	05/03/24	144603	6,210.00
96	DOWNEY BRAND ATTORNEYS LLP	Legal Services 31348.00000 03/24	05/01/24	144522	3,059.00
97	DOWNEY BRAND ATTORNEYS LLP	Legal Services 31348.00002 03/24	05/01/24	144522	1,381.00
98	EATON CORPORATION	UPS Service - JLWTP	05/03/24	144604	3,039.50
99	EBBETTS PASS GAS SERVICE	Fuel EP 04/24	05/03/24	144605	4,301.50
100	EMPLOYMENT DEVELOPMENT DEPT	Acct#932-0252-1 Media #2138628528 01/01/24 -03/31/24	05/22/24	144658	9,667.00
101	ENTERPRISE FM TRUST	Vehicle Lease 05/25 Acct#441657B	05/03/24	144606	30,634.52
102	FASTENAL	Materials & Supplies - Vending	05/03/24	144607	453.74
103	FASTENAL	Safety Supplies - Vending	05/03/24	144607	879.02
104	FASTENAL	Tools - Vending	05/03/24	144607	91.71
105	FASTENAL	Safety Supplies - Stock	05/22/24	144659	147.00
106	FEDERAL EXPRESS	Acct#119229243 Delivery Charges to Mueller	05/01/24	144523	148.22
107	FINANCIAL PACIFIC LEASING	Principal & Interest Payment VacCon #1	05/31/24	EFT	31,269.08
108	FOOTHILL PORTABLE TOILETS	Rental Portable Toilet 03/26/24-04/23/24 SR	05/01/24	144524	309.00
109	FREEDOM INFORMATION TECHNOLOGY SOLUTIONS IN	Spare Laptop	05/08/24	144565	1,238.15
110	FREEDOM INFORMATION TECHNOLOGY SOLUTIONS IN	Engineering Laptop Replacement and Spare	05/22/24	144660	3,300.11
111	GAMBI DISPOSAL INC.	Bio-Solids Removal - April 2024	05/03/24	144608	6,125.00
112	GENERAL PLUMBING SUPPLY CO INC	Fittings - Distribution	05/03/24	144609	986.09
113	GENERAL SUPPLY COMPANY	Electrical Parts - LCWWTP	05/03/24	144610	1,129.86
114	GEORGE REED INC	Base Rock - EP Hogan Dam Road Fence Project	05/01/24	144526	527.57
115	GEORGE REED INC	Class II AB - Utility Crew	05/03/24	144611	820.59
116	GEORGE REED INC	Base Rock - EP Hogan Dam Road Fence Project	05/22/24	144662	829.10
117	GLOBAL PAY	Global Payments 24728 Apr 2024	05/31/24	EFT	15,321.44
118	GLOBAL PAY	Global Payments 7167 Apr 2024	05/31/24	EFT	4,551.80
119	GRAINGER	Gas Cylinder Regulator - Collection Crew	05/01/24	144527	287.32
120	GRAINGER	Mini Blinds - JLTC	05/22/24	144663	64.14
121	GRAINGER	Safety Supplies - Electrical Crew	05/22/24	144663	11.39
122	GRAINGER	Tools - Electrical Crew	05/22/24	144663	231.13
123	GRAVETTE, JARED	CRWA Meal Reimbursement	05/01/24	144528	60.00
124	HANSON BRIDGETT LLP	Legal Services 040081.000001 03/24	05/01/24	144529	4,942.50
125	HANSON BRIDGETT LLP	Legal Services 040081.000001 04/24	05/08/24	144566	2,005.90
126	HERD'S MACHINE & WELD SHOP	Safety Supplies - SA Shop	05/03/24	144612	116.90

	Vendor	Description	Check Date	Check No	Amount
127	HERD'S MACHINE & WELD SHOP	Welding Supplies - SA Shop	05/03/24	144612	44.99
128	HERRING PAVING COMPANY	Saw Cut, Dig Out, Pave - JL	05/01/24	144530	14,175.00
129	HOBGOODS CLEANING	Janitorial Service JLTC 05/25	05/03/24	144613	50.00
130	HOBGOODS CLEANING	Janitorial Service OP HQ 05/25	05/03/24	144613	1,935.00
131	HOBGOODS CLEANING	Janitorial Service Shop 05/25	05/03/24	144613	37.00
132	HOLT OF CALIFORNIA	Freight on PS001163432	05/01/24	144531	29.47
133	HUNT & SONS, INC	Fuel - CC	05/01/24	144532	1,660.29
134	HUNT & SONS, INC	Fuel - JL Campbell Ct	05/01/24	144532	2,065.32
135	HUNT & SONS, INC	Oil - SA Shop	05/01/24	144532	653.58
136	HYDROSCIENCE ENGINEERS INC	Design/Engineering Services Arnold Secondary Clarifier, CIP 15095	05/03/24	144614	17,783.15
137	HYDROSCIENCE ENGINEERS INC	Design/Engineering Services - Copper Cove Tertiary/UV Improvements, CIP 15094T	05/03/24	144614	32,451.49
138	IRON MOUNTAIN	Documentation Destruction 05/24	05/03/24	144615	178.64
139	JACKSON TIRE SERVICE, INC	Tire Labor	05/08/24	144567	70.90
140	JESUS, KATE	Meal Reimbursement PSHRA	05/08/24	144568	152.04
141	KESSLER, JAYELYNN	UB Refund 3440 Hartvickson Lane	05/01/24	144533	58.23
142	KW EMERSON, INC	Construction Contract West Point/Wilseyville Consol Constr, CIP 15091	05/22/24	144664	772,048.81
143	LANDSTEDT, DENISE	Grant Administration Services 03/24	05/08/24	144569	2,715.00
144	LANDSTEDT, DENISE	Grant Administration Services	05/03/24	144616	1,300.00
145	LARSEN, CARL & MARGIE	UB Refund 7454 Baldwin Street	05/01/24	144534	63.43
146	LEDGER DISPATCH	Recruitment Ad - Mechanic	05/01/24	144535	23.80
147	LOLLAR, STACEY	Meal Reimbursement PSHRA	05/03/24	144617	193.80
148	LOLLAR, STACEY	Mileage Reimbursement PSHRA	05/03/24	144617	107.20
149	LYNN PARK ACRES COMM SVC DIST	CSD Annual Road Maintenance Fee	05/22/24	144665	300.00
150	MAIN STREET TECHNOLOGIES	HP Plotter purchase and 5 year agreement	05/08/24	144570	1,924.00
151	MATERIAL VENTURES, INC	Insulation - DF VCTO	05/03/24	144618	5,800.00
152	MATHESON TRI-GAS, INC	Liquid Oxygen - JLWTP	05/01/24	144536	8,118.57
153	MID VALLEY AGRICULTURAL INC	Round Up	05/03/24	144619	546.36
154	MINKLER, MICHAEL	ACWA Meal (8) Reimbursement	05/01/24	144537	140.00
155	MISCOWATER	Spare Parts Kit - JLWTP	05/01/24	144538	494.28
156	Mission Square	Retiree Health 04/30/2024 Payroll	05/07/24	EFT	2,230.00
157	Mission Square	Retiree Health 05/15/2024 Payroll	05/20/24	EFT	2,190.00
158	MODESTO AIRCO GAS & GEAR	Cylinder Rental 04/24	05/03/24	144620	104.00
159	MOTHER LODE ANSWERING SERVICE	Answering Service 04/24	05/03/24	144621	887.00
160	MOUNTAIN COUNTIES WATER RESOURCES ASSOC	Legislative Advocacy Day 05/15/24	05/01/24	144539	250.00
161	MOUNTAIN OASIS PURIFIED WATER	Water Cooler & Supplies 04/24	05/03/24	144622	205.05
162	MOZINGO CONSTRUCTION, INC.	Construction Contract CC Lift Stations 15 & 18 Rehab, CIP 15080	05/08/24	144571	38,475.00
163	MOZINGO CONSTRUCTION, INC.	Construction Contract CC Lift Stations #6, 8 & Force Main, CIP 15076	05/03/24	144623	99,037.50
164	MUNICIPAL MAINTENANCE EQUIP	Pressure Transducer V746	05/01/24	144540	390.68
165	MUNICIPAL MAINTENANCE EQUIP	Vac-Con Parts - V746	05/01/24	144540	1,154.51
166	MUTUAL OF OMAHA	Life, AD&D Acct#G000AWXB 05/24	05/08/24	144572	7,424.55
167	NATE'S TREE SERVICE	Tree Service - WP	05/03/24	144624	2,025.00
168	NORDAHL LAND SURVEYING	Land Surveying Services CC O'Brynes Water Line Ext, CIP 11132	05/08/24	144573	1,170.00

CCWD - AP DISBURSEMENTS
MAY 1-31, 2024

	Vendor	Description	Check Date	Check No	Amount
169	NORTHSTAR CHEMICAL	Sodium Hypochlorite - CCWTP	05/03/24	144626	2,217.83
170	NTU TECHNOLOGIES INC	Zinc Ortho Protek 301 - JLWTP	05/22/24	144666	4,042.50
171	O'CONNELL & DEMPSEY, LLC	Legislative Lobbying Activities 04/24	05/22/24	144667	6,000.00
172	O'REILLY AUTO PARTS	Tail Light V735 (JLWTP)	05/08/24	144574	3.39
173	OUTWEST AUTO	Vehicle Service V715	05/01/24	144541	118.31
174	P G & E	Power-CC Water Tank	05/31/24	EFT	5.57
175	P G & E	Power-District Wide	05/31/24	EFT	3,888.86
176	P G & E	Power-George Reed/OP HQ	05/31/24	EFT	174.86
177	P G & E	Power-Silver Rapids/JLTC	05/31/24	EFT	147.33
178	P G & E	Power-Woodgate L/S	05/31/24	EFT	16.15
179	PACE SUPPLY CORP	Meter Boxes - LC Dist	05/08/24	144575	1,411.97
180	PACE SUPPLY CORP	Hydrant - Distribution	05/03/24	144627	4,458.68
181	PACE SUPPLY CORP	Meter Boxes - LC Whse	05/03/24	144627	1,411.97
182	PACE SUPPLY CORP	Poly Tube - Distribution	05/03/24	144627	1,466.75
183	PACE SUPPLY CORP	Valves - Hydrant Project LC	05/03/24	144627	3,452.67
184	PAPE KENWORTH	Repair Parts V745	05/22/24	144668	445.67
185	PETERSON BRUSTAD INC	Prepare Ops Plan Update West Point Backup Water Filter, CIP 11106	05/08/24	144576	6,405.26
186	PETERSON BRUSTAD INC	Contract Engineering Services CC Zone B-C Trans Pipeline & Pump Station, CIP 11122	05/22/24	144669	76,699.50
187	PFM ASSET MANAGEMENT LLC	Series 2022 Water/Sewer Revenue Bonds	05/22/24	144670	5,000.00
188	POLLARDWATER	Hose Ramps - District	05/22/24	144671	1,029.60
189	POTRERO HILLS LANDFILL	Bio-Solids Disposal - AWWTP	05/03/24	144628	551.07
190	POTRERO HILLS LANDFILL	Bio-Solids Disposal - LCWWTP	05/03/24	144628	675.75
191	PROGRESSIVE PRINT SOLUTIONS	New Hire Employee Shirts	05/08/24	144577	477.26
192	QUADIENT FINANCE INC	Postage 04/2024	05/31/24	EFT	1,000.00
193	RATTERMAN, SCOTT	Mt Counties- Hotel/ACWA Parking Reimbursement	05/01/24	144542	143.95
194	RATTERMAN, SCOTT	Mt Counties/ACWA Mileage	05/01/24	144542	135.34
195	RATTERMAN, SCOTT	Travel 04/24	05/01/24	144542	9.38
196	RICHARDSON & COMPANY	Audit Services FY End 2023	05/08/24	144578	7,531.25
197	ROUSAN-GEDESE, BANA	ACWA Travel Reimbursement	05/03/24	144629	144.43
198	RS AMERICAS INC	Electrical Supplies - Stock	05/22/24	144672	1,296.37
199	RS AMERICAS INC	Relays - LCWWTP	05/22/24	144672	114.07
200	SAGE, THOMAS	Supply Reimbursement	05/01/24	144543	27.00
201	SAN JOAQUIN COUNTY PUBLIC WORKS	Cust#E00000016 Ground Water Sustainability Plan	05/01/24	144545	38,506.00
202	SAPIEN, ROBERT	Tree Removal - EP Barn	05/03/24	144630	6,800.00
203	SECADA, CINDY	Travel 04/24	05/01/24	144546	77.78
204	SECADA, CINDY	ACWA Travel Reimbursement	05/22/24	144673	645.68
205	SEIU LOCAL 1021	COPE 04/24	05/01/24	144547	40.00
206	SEIU LOCAL 1021	SEIU 04/24	05/01/24	144547	2,875.00
207	SENDERS MARKET INC	Concrete - Hydrant Replacement	05/03/24	144631	117.76
208	SENDERS MARKET INC	Electrical Parts - Southworth WWTP	05/03/24	144631	74.27
209	SENDERS MARKET INC	Fittings V723	05/03/24	144631	7.68
210	SENDERS MARKET INC	Supplies - Construction Fence Material	05/03/24	144631	482.48

CCWD - AP DISBURSEMENTS
MAY 1-31, 2024

	Vendor	Description	Check Date	Check No	Amount
211	SENDERS MARKET INC	Trimmer Line - JL	05/03/24	144631	25.73
212	SHEP ENTERPRISES LLC	Repair Parts - SA Shop	05/22/24	144674	35.55
213	SLAKEY BROS	Janitorial Supplies - OPS HQ's	05/03/24	144632	823.65
214	SLAKEY BROS	Weed Sprayer - District	05/03/24	144632	511.25
215	SWRCB	Water Distribution Grade 2 Exam - VanZant	05/01/24	144549	65.00
216	SWRCB	Water Distribution Grade 2 Renewal - DeAmicis	05/08/24	144580	60.00
217	SWRCB	Water Distribution Grade 2 Renewal - Tindell	05/08/24	144580	80.00
218	SWRCB	Water Treatment Grade 3 Re-test Application - Grutzmacher	05/08/24	144580	70.00
219	SYSTAT	UPS - CC Ozone Generators	05/22/24	144675	91,353.87
220	T&S CONSTRUCTION CO., INC.	Construction Services CC Clearwell/Tank B CIP 11083C	05/08/24	144581	436,664.58
221	THE CAR DOCTOR	Vehicle Service- V12	05/01/24	144550	133.50
222	THOMAS, RUSS	Travel 04/25	05/01/24	144551	263.98
223	TIFCO INDUSTRIES	Materials & Supplies - SA Shop	05/22/24	144677	445.45
224	TOP QUALITY INSULATION AND FIREPLACES, INC	Roll Up Door Repair - Shop	05/03/24	144633	225.00
225	TREATS GENERAL STORE INC	Hardware - SA Shop	05/01/24	144552	7.46
226	U.S. BANK	Valve Training - Martinez	04/25/2024	EFT	600.00
227	U.S. BANK	ACWA Registration - Richards	04/25/2024	EFT	840.00
228	U.S. BANK	ACWA Parking - Minkler	04/25/2024	EFT	372.49
229	U.S. BANK	ACWA Registration - Bana	04/25/2024	EFT	335.00
230	U.S. BANK	ACWA Registration Ratterman & Thomas	04/25/2024	EFT	670.00
231	U.S. BANK	Admin Tech Keyboard	04/25/2024	EFT	41.82
232	U.S. BANK	Air Dryer - EBay	04/25/2024	EFT	55.71
233	U.S. BANK	Alhambra 03/24	04/25/2024	EFT	231.59
234	U.S. BANK	Amazon	04/25/2024	EFT	65.94
235	U.S. BANK	Aramark 03/24	04/25/2024	EFT	2,776.49
236	U.S. BANK	BOD Supplies	04/25/2024	EFT	41.94
237	U.S. BANK	BPAT Cert Application - Greer	04/25/2024	EFT	320.00
238	U.S. BANK	Breakers - Hunters WTP	04/25/2024	EFT	1,711.69
239	U.S. BANK	Business Cards	04/25/2024	EFT	72.00
240	U.S. BANK	Cal Net 03/24	04/25/2024	EFT	62.04
241	U.S. BANK	Cal Tel 03/24	04/25/2024	EFT	1,348.30
242	U.S. BANK	Cal Waste 03/24	04/25/2024	EFT	1,880.21
243	U.S. BANK	Calaveras Chamber of Commerce Annual Membership	04/25/2024	EFT	535.00
244	U.S. BANK	Comcast 03/24	04/25/2024	EFT	475.64
245	U.S. BANK	Compressor - FMWWTP	04/25/2024	EFT	6,975.41
246	U.S. BANK	Conference Fee, Hotel, JPIA, SHRM, Training - Lollar	04/25/2024	EFT	1,970.55
247	U.S. BANK	CSFMO Online Training - Muetterties & Bear	04/25/2024	EFT	260.00
248	U.S. BANK	CWEA -Electrical Instrumentation Cert Prep Class Grade 1-2	04/25/2024	EFT	245.00
249	U.S. BANK	Distribution Course - Gravette	04/25/2024	EFT	228.25
250	U.S. BANK	Door Striker OP HQ Lobby	04/25/2024	EFT	304.59
251	U.S. BANK	Engineering Monitors and Keyboard	04/25/2024	EFT	1,789.60
252	U.S. BANK	External Affairs Phone Upgrade	04/25/2024	EFT	682.29

	Vendor	Description	Check Date	Check No	Amount
253	U.S. BANK	First Aid Training Snacks	04/25/2024	EFT	181.80
254	U.S. BANK	FM Modem, Keyboard Upgrade	04/25/2024	EFT	2,119.44
255	U.S. BANK	Home Depot- Hand Tools	04/25/2024	EFT	163.33
256	U.S. BANK	Hotspot Subscription - V753	04/25/2024	EFT	200.00
257	U.S. BANK	HR Conference Lunch - Jesus	04/25/2024	EFT	19.38
258	U.S. BANK	Ice Maker - SA Shop	04/25/2024	EFT	911.61
259	U.S. BANK	Internet WP WWTP	04/25/2024	EFT	120.00
260	U.S. BANK	Jack, Grease Gun, Zerk Cleaner, Pipe Re-Rounder	04/25/2024	EFT	689.17
261	U.S. BANK	Laptop for HR Manager	04/25/2024	EFT	1,158.99
262	U.S. BANK	Leadership Training Refund - Wyckoff	04/25/2024	EFT	(1,200.00)
263	U.S. BANK	Leadership Training Refund - Hampton	04/25/2024	EFT	(1,200.00)
264	U.S. BANK	Life Preserver/ Cabinet - JLWTP	04/25/2024	EFT	500.10
265	U.S. BANK	Lunch - TUD and GB for WW/W Treatment Plant Interviews	04/25/2024	EFT	87.42
266	U.S. BANK	Office Supplies	04/25/2024	EFT	1,288.99
267	U.S. BANK	Phone System , Office Internet	04/25/2024	EFT	2,127.22
268	U.S. BANK	Postage	04/25/2024	EFT	30.65
269	U.S. BANK	Propane - Forklift	04/25/2024	EFT	90.04
270	U.S. BANK	Protective Glass - WP WTP	04/25/2024	EFT	687.14
271	U.S. BANK	Pump Switch, Air Hose, Hinges	04/25/2024	EFT	854.34
272	U.S. BANK	Recording Fees - Calaveras County	04/25/2024	EFT	23.00
273	U.S. BANK	Senders- Liquid Nail, Nuts, Chain Bar Oil, Weedeater String	04/25/2024	EFT	75.60
274	U.S. BANK	SHRM Membership - Lollar	04/25/2024	EFT	264.00
275	U.S. BANK	Spill Kits, DVIR Hand Books, Life Preserver, Ice Maker	04/25/2024	EFT	694.47
276	U.S. BANK	Stanislaus Water Shed Symposium - Coleman	04/25/2024	EFT	65.87
277	U.S. BANK	Starlink Internet Hunters, WP Arnold	04/25/2024	EFT	600.00
278	U.S. BANK	Tables - Vallecito	04/25/2024	EFT	697.36
279	U.S. BANK	Trash Can, Filters, Pail Lid - Hunters	04/25/2024	EFT	78.58
280	U.S. BANK	UPS Batteries	04/25/2024	EFT	1,071.04
281	U.S. BANK	UPUD 03/24	04/25/2024	EFT	245.34
282	U.S. BANK	Vents, Refund V726 Lodi Dodge Parts	04/25/2024	EFT	(377.23)
283	U.S. BANK	Verizon 03/24	04/25/2024	EFT	3,120.58
284	U.S. BANK	Volcano Telephone 03/24	04/25/2024	EFT	599.36
285	U.S. BANK	Water Code Updates	04/25/2024	EFT	27.26
286	U.S. BANK	Web Hosting, VPN Upgrade, Verizon Phone System, Mobile MDM	04/25/2024	EFT	6,396.50
287	U.S. BANK	Windshield V139	04/25/2024	EFT	411.02
288	U.S. BANK	WP Lumber- Knox Box Parts -WP Fire Dept	04/25/2024	EFT	57.31
289	U.S. BANK	WP Lumber- Septic Tank Fittings	04/25/2024	EFT	32.95
290	ULINE	Marking Paint - Distribution	05/03/24	144634	488.18
291	UMPQUA BANK-ACH	CTO Payout Bank ACH 05/30/2024 CONFIDENTIAL	05/29/24	EFT	1,029.29
292	UMPQUA BANK-ACH	Retiree Health Reimbursement 05.31.24	05/29/24	EFT	58,182.27
293	UMPQUA BANK-ACH	CTO Payout Bank ACH 05/31/2024 CONFIDENTIAL	05/31/24	EFT	1,143.54
294	UMPQUA BANK-ACH	Harland Clark Check Order	05/31/24	EFT	1,701.89

CCWD - AP DISBURSEMENTS
MAY 1-31, 2024

	Vendor	Description	Check Date	Check No	Amount
295	UNDERHILL, BERTHA	Travel 04/24	05/01/24	144553	128.64
296	UNION DEMOCRAT	Recruitment Ad - Mechanic	05/03/24	144635	668.12
297	UNITED PARCEL SERVICE	Shipping Week End 04/13	05/01/24	144554	9.90
298	UNITED PARCEL SERVICE	Shipping Week End 04/21	05/01/24	144554	9.90
299	UNITED PARCEL SERVICE	Shipping Week End 04/28 Acct#9X5040	05/03/24	144636	9.90
300	UNITED PARCEL SERVICE	Shipping Week End 05/03 Acct#9X5040	05/03/24	144636	13.75
301	US BANK CORP TRUST SVCS	Trustee Fees Fly In Acres / Da Lee Cassidy STS2021	05/03/24	144637	1,500.00
302	USA BLUE BOOK	Lab Supplies - AWWTP, FMWWTP, & DF VCTO	05/01/24	144555	1,427.66
303	USA BLUE BOOK	LMI Pumps - WPWTP Fire	05/01/24	144555	2,462.46
304	USA BLUE BOOK	TU5300 - WPWTP	05/03/24	144638	6,269.75
305	USA BLUE BOOK	Lab Supplies - WPWTP	05/22/24	144676	736.94
306	USDA RURAL DEVELOPMENT	Case#04-005-0941582070 Arnold AD9S4 Code 92 Loan#08	05/08/24	144582	25,212.92
307	VALIC	Def Comp Disbursement 04/30/2024 Payroll	05/07/24	EFT	500.00
308	VALIC	Def Comp Disbursement 05/15/2024 Payroll	05/20/24	EFT	500.00
309	VALLEY SPRINGS NEWS	Recruitment Ad - Mechanic	05/08/24	144583	145.00
310	VERIFIED FIRST, LLC	New Hire Background Investigation	05/03/24	144639	48.26
311	VOYA FINANCIAL	Def Comp Disbursement 04/30/2024 Payroll	05/07/24	EFT	1,068.00
312	VOYA FINANCIAL	Def Comp Disbursement 05/15/2024 Payroll	05/20/24	EFT	1,068.00
313	WAGEWORKS	FSA Admin 04/24	05/01/24	144557	200.00
314	WEST POINT LUMBER INC	Fasteners, Screws - WP Fire Emergency Project	05/03/24	144640	24.02
315	WEX BANK	Fuel 04/24	05/31/24	EFT	23,648.31
316	YOUNG'S COPPER ACE HARDWARE	Materials & Supplies CC	05/01/24	144558	67.17
	TOTAL				**2,590,226.21**

RESOLUTION NO. 2024-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

RATIFYING CLAIM SUMMARY NO. 627

WHEREAS, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT has reviewed and considered Claim Summary Number 627 at the Regular Meeting held on June 12, 2024; and

WHEREAS, Board Members have resolved questions, issues, or concerns by consultation with District staff during said meeting.

NOW, THEREFORE, BE IT RESOLVED that the CALAVERAS COUNTY WATER DISTRICT Board of Directors hereby ratifies Claim Summary Number 627 in the amount of $3,185,548.85 for the month of May 2024.

PASSED AND ADOPTED this 12th day of June 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Stacey Lollar, Human Resources Manager

SUBJECT: Approval of Whistleblower Protection Policy

RECOMMENDED ACTION:

Motion: _____/_____ adopting Resolution No. 2024 - ___ Employee Policy 2340 – Whistleblower Protection Policy

SUMMARY:

The District is committed to fostering a engaged workforce that cares about the success of the District's mission, vision, and goals. One component for this this type of workforce to exist requires a strong culture of internal feedback and reporting, which can be informal to formal. The proposed policy before you today, Whistleblower Protection, is a new policy for the District which will help continue to foster our workforce to continue to provide feedback and report misconduct in the workplace.

Though the policy is a requirement for financial reasons, as pointed out by the District auditors in our annual audit letter, there are several other reasons to adopt and maintain a Whistleblower policy. The policy solidifies the District's ethical stance to protect our employees and the public we serve while minimizing risk and costs.

District Management have successfully met and conferred with both bargaining units, and recommend the Board adopt this policy.

FINANCIAL CONSIDERATIONS:

None.

STRATEGIC PLAN:

The 2021-2026+ CCWD Strategic Plan (Strategic Plan, adopted April 28, 2021 per Board of Directors' Resolution No. 2021-24, outlines several Goals and Objectives (Objectives))

meant to identify organizational opportunities and measure CCWD's results over time. Consistent with the Strategic Plan, this Agenda Item supports the following objectives:

FR-08	Communicate the District's fiscal obligations and accountability to our customers through transparency.
PI-10	Maintain up-to-date District policies.
EO-01	Develop a District that our customers value and our Board and staff are proud to serve.
EO-06	Develop thought leadership.

Attachments: Resolution 2021-XX Adopting Employee Policy 2340 – Whistleblower Policy
Proposed Whistleblower Policy

RESOLUTION NO. 2024 - __

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

APPROVING NEW DISTRICT EMPLOYEE POLICY WHISTLEBLOWER PROTECTION

WHEREAS, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT (CCWD) has the authority to Implement new policies; and

WHEREAS, the Board of Directors and District staff wish to add employee policy 2340 – Whistleblower Protection.

NOW, THEREFORE BE IT RESOLVED, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT hereby adopts new CCWD Employee Policy 2340 for incorporation into the Employee Policy Handbook effective immediately.

PASSED AND ADOPTED this 12th day of June by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

POLICY TITLE: Whistleblower Protection
POLICY NUMBER: 2340
POLICY EFFECTIVE DATE: June 12, 2024

The District prohibits all of the following:

(a) taking any retaliatory adverse employment action against an employee because the employee has or is believed to have disclosed information to any government or law enforcement agency, including to the District, if the employee has reasonable cause to believe that the information discloses a violation of state or federal law, or a violation or noncompliance with a local, state, or federal rule or regulation (Labor Code § 1102.5(b));

(b) preventing an employee from disclosing information to a government agency, including to the District, if the employee has reasonable cause to believe that the information discloses a violation of state or federal law, or a violation or noncompliance with a local, state, or federal rule or regulation (Labor Code § 1102.5(a));

(c) retaliating against an employee for refusing to participate in any activity that would result in a violation of state or federal law, or a violation or noncompliance with a local, state, or federal rule or regulation (Labor Code § 1102.5(c)); and

(d) retaliating against an employee because the employee's family member has or is perceived to have engaged in any of the protected activities listed in (a)-(c) above.

2340.1 Policy Coverage

This Policy governs and protects District officials, officers, employees, temporary**,** or applicants for employment.

2340.2 Definitions

(a) "Protected activity" includes any of the following:

- Filing a complaint with a federal, state, local, environmental enforcement or administrative agency that discloses any information that the employee has reasonable cause to believe violates state or federal law or a violation or noncompliance with a local, state, or federal rule or regulation.
- Participating in or cooperating in good faith with a local, federal, or state enforcement agency that is investigating in to alleged unlawful activity.
- Testifying in good faith and with reasonable cause as a party, witness, or accused regarding alleged unlawful activity.
- Associating with another covered individual who is engaged in any of the protected activities enumerated here.
- Making or filing in good faith and with reasonable cause an internal complaint with the District regarding alleged unlawful activity.
- Providing informal notice to the District regarding alleged unlawful activity.

- Calling a governmental agency's "Whistleblower hotline" in good faith.
- Filing a written complaint under penalty of perjury that the District has engaged in gross mismanagement, a significant waste of public funds, or a substantial and specific danger to public health or safety. (Labor Code §§ 53296(c) & 53297(d).)
- Refusing to participate in any activity that the employee reasonably believes would result in a violation of state or federal law, or a violation or noncompliance with a local, state, or federal rule or regulation. (Labor Code § 1102.5(c).)

(b) "Adverse action" may include, but is not limited to, any of the following:

- Real or implied threats of intimidation to attempt or prevent an individual from reporting alleged wrongdoing or because of actual or potential protected activity.
- Refusing to hire an individual because of actual or potential protected activity.
- Denying promotion to an individual because of actual or potential protected activity.
- Taking any form of disciplinary action because of actual or potential protected activity.
- Extending an introductory period because of actual or potential protected activity.
- Altering work schedules or work assignments because of actual or potential protected activity.
- Condoning hostility and criticism of co-workers and third parties because of actual or protected activity.
- Spreading rumors about a person because of that person's actual or perceived protected activity.
- Shunning or unreasonably avoiding a person because of that person's actual or perceived protected activity.

2340.3 Complaint Procedure

An applicant, employee, or temporary employee who feels he or she has been subject to an adverse action in violation of this Policy should immediately report the conduct according to the complaint procedure in the District's Policy Against Discrimination, Harassment or Retaliation so that the complaint can be resolved fairly and quickly. Supervisors and Managers have the same responsibilities as defined in the Policy Against Discrimination, Harassment or Retaliation.

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Jeffrey Meyer, Director of Administrative Services

SUBJECT: Adoption of the Fiscal Year 2024-25 Operating and Capital Improvement Program (CIP) Budgets and Personnel Allocation

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RECOMMENDED ACTION:

Motion _____ / _____ adopting Resolution No. 2024 - _____ the Fiscal Year 2024-25 Operating and Capital Improvement Program (CIP) Budget; and

Motion _____ / _____ adopting Resolution No. 2024 - _____ the Personnel Allocation for the Fiscal Year 2024-25 Budget.

BACKGROUND:

The development of a new budget is an exciting time and one that provides the District an opportunity to show how its resources are aligned with its strategic plan, goals, and objectives. This year the District unveils a new budget package that outlines what the District is going to accomplish in a new format and also includes other significant changes. Some key additions to the budget are:

- A new rate structure and updated presentation of revenues and expenditures
- The addition of a new hydropower fund
- Rate revenue in the operating budget incorporates all rate revenue, including infrastructure funding previously segregated as R&R income.
- Integrating fund balances into the budget process and long-term planning for water, wastewater, and hydropower.

Over the last two years staff worked with our auditors to separate the activities of our water and wastewater enterprise funds in both the audited financial statements and the budget, and, by extension, our strategic plan. This effort continues with the FY 2024-25 budget as we have enhanced the presentation of the two budgets and show the path to eliminating structural deficits. We are also adding a hydropower enterprise fund.

The hydropower fund is designed to:

a) Consolidate the District's hydropower activities related to the operations and FERC relicensing efforts of the North Fork and New Hogan power generation projects into a single fund

b) Allow hydropower resources to continue its support of the water and wastewater funds

The structure of the hydropower fund will:

- Increase fiscal transparency of our hydropower activities
- Identify and track North Fork and New Hogan hydropower project related work, including federal and state fees, consulting and legal services and staff support
- Fund project work efforts with project hydroelectric revenues and reimbursements

Staff is working with financial and legal consultants on integrating the hydropower fund into existing District's Financial Management policies. This comprehensive effort will review all existing policies, including reserves and debt, and ensure that the policies continue to meet industry and accounting standards, provide financial flexibility to meet the everchanging fiscal challenges of operating and maintaining critical infrastructure, and add clarity to the use of hydropower resources to ensure fund stability.

The three separate funds - water, wastewater, and hydropower will allow the reader to see exactly what revenues are collected in each fund, as well as the expenditures that are required to maintain the water, wastewater, and hydropower activities. The individual tracking and reporting will also position the District to continue its long-term approach to maintaining our critical infrastructure, maximize our assets, and position itself to secure grants and be able to economically issue debt.

The changes in how we present revenues and expenditures are due in part to the new rate structure included in the recently adopted Five-Year Water and Wastewater Rates, but also reflects updated allocations of certain expenditures among departments or expenditure accounts to ensure costs are accurately accounted for. The most significant change is moving North Fork and New Hogan Hydroelectric Project related revenues and expenditures out of the water and wastewater funds into the new Hydropower Fund. These efforts are designed to better align our budget with our core functions and increase fiscal transparency.

The District prepares two budgets, an operations budget, and a Capital Improvement Program (CIP) budget. The operating budget includes funding for the District's day-to-day water and wastewater operations for treatment, distribution, collections, and administration. Historically these activities have been supported by customer rate revenues, fees, property tax revenues, leases, North Fork and New Hogan hydroelectric revenues, and other revenue sources.

The District's CIP budget includes funding for critical short and long-term water and wastewater facility improvement projects. The FY 2024-25 CIP budget was included in the recently approved Five-Year Capital Improvement Program Plan. The District funds its CIP projects with grants, reserves, loans, and a portion of the customer rate revenue.

The District's operating budget includes separate budgets for the water and wastewater enterprise funds. Each fund must be self-sufficient, water revenues must fully support water operation and wastewater revenues must fully support the wastewater fund.

However, this has not always occurred, as reported in the 2023 rate study:

- Current water revenues were not sufficient to support the water operations.
- Continuing a multi-year trend, wastewater revenues have not fully funded wastewater operations. Furthermore, prior funding gaps have led to a negative fund balance in the wastewater fund of $1,730,004 as of June 30, 2023.

The rate study included a three-year plan to stabilize the water and wastewater operating funds and eliminate the negative wastewater fund balance and restore its reserve level. In addition to delivering balanced water and wastewater budgets, the FY 2024-25 operating budget will include projected beginning and ending fund balances in the water and wastewater funds, a mechanism to reduce the negative balance in the wastewater fund, and strategies to ensure that the District meets its operating reserve levels.

Another change for FY 2024-25 is how the District records the rate revenues it uses to fund its capital program. Beginning in 2013, the water and wastewater rates were divided into two parts, one part dedicated to operations, and the other to capital projects. The capital portion of the water and wastewater rates was known as Capital Renovation and Replacement (Capital R&R) revenue. These funds were deposited directly into the Water Capital R&R Fund (Fund 125) and the Wastewater Capital R&R Fund (Fund 135). The Capital R&R revenues have been used to fund CIP projects, provide local matching funds for grants, and pay the debt service on loans the District secured to complete large water and wastewater projects.

Until the new rate structure was implemented in October 2023, Capital R&R revenues were not included in the water and wastewater operating budgets. The new rate plan changed the structure of both water and wastewater rates by combining the operating and Capital R&R rates into one rate, which is now deposited in the Water and Wastewater Operating Funds (Fund 300 and Fund 500). In October, the Board passed Ordinance 2023-02 which designated the minimum funding levels for the District's water and wastewater capital programs, and Resolution 2023-56, which amended the District's Financial Management Policy 5.00 – Budget and Fiscal Policies. These two measures set the minimum funding level for the District's capital programs at $4.7 million - $3.4 million for the water capital program and $1.3 million for the wastewater capital program, amounts similar to what was previously deposited in the Capital R&R funds.

Including the $4.7 million allocated for capital funding in operating revenues overstates the revenues available to fund operations as a like amount is transferred to the Capital R&R funds. The transfer out is a mechanism that moves the rate revenue from the water and wastewater operating funds to the Capital R&R funds and is included in the expenditure budget. As a result, of the projected $8.8 million year-to-year increase in water and wastewater sales, only $4.1 million of the increase is available for operations.

SUMMARY:

As in past years, the FY 2024-25 Operating Budget is guided by the values, objectives, and priorities established by the Board during development of the District's strategic plan in 2021. This budget enables staff to continue the District's efforts in implementing

proactive, cost-effective solutions to long-standing challenges with an emphasis on infrastructure replacement, transparency, and improving the customer experience.

Inflation pressure continues to affect the District across multiple expenditure types, new regulatory requirements increase the cost of doing business, and there is the ever-increasing cost of maintaining and replacing aging infrastructure.

Revenues

As noted above, water and wastewater rate revenues are projected to increase by $4.1 million, plus the $4.7 million in the reallocation of capital funding through the operating budget. The increase is primarily due to the water and wastewater rate increases effective October 16, 2023, and July 16, 2024. Other Operating Revenues, which includes the online credit card and e-check fees that help offset the increased third-party fees the District pays, is projected to increase by $184,500, while property tax revenues are expected to increase by $276,000. There is also a $363,100 increase in federal grant revenues for reimbursement of the Doud's Landing Fuelbreak Project costs. The Transfers In budget of $3.8 million includes funds from the water and wastewater Capital R&R funds to cover debt service for infrastructure financing, in-house support for water and wastewater infrastructure projects and from the wastewater fund for debt service on the Water Loan. This is a decrease of approximately $287,000 from FY 2023-24.

Total revenue budgeted for FY 2024-25, including operating revenue, non-operating revenue, and transfers-in, is $38.9 million. This represents a $4.1 million water and wastewater rate revenue increase and a reallocation of $4.7 million. As explained below, nearly $5.5 million will be transferred out of the Operating Budget for capital infrastructure expenditures.

Expenditures

A significant portion of operating budget expenditure increases are attributed to inflationary increases on many of the services and supplies that are essential for District operations. Budget increases are also attributed to the District's FERC relicensing efforts for the North Fork and New Hogan projects:

- Increased Medical Insurance Costs - This affects benefits costs for current employees, which increased an overall $350,000, and also increased the budget for providing retiree health benefits to our retirees by $135,000.
- Professional Services – Increased by $681,890. This includes an ARC Flash Assessment; multiple Engineering projects, including a Water/Wastewater Ordinance update, Ebbetts Pass Water and Arnold Sewer Master Plan updates, and Water Hydraulic Modeling; and North Fork FERC Re-License support in the Water Resources budget.
- Outside Legal – Projecting a $75,000 increase for the hydropower project relicensing.
- State and Federal fees are projected to increase by a combined $76,700. Some of these fees are reimbursed by NCPA and MID.

- Insurance – The budget for property, vehicle and liability insurance costs are expected to increase almost $50,000 from the FY 2023-24 budget.
- Third Party Payment Processing – The budget will increase by $259,000, going from $33.600 to $292,600. Entering its second year under the current fee and revenue recovering program, the additional historical data has allowed for better budget projections. Approximately 81% of these costs are offset by fees charged to the users.

Staffing

In support of the District's water CIP program, in particular the Jenny Lind A-B Transmission Replacement Project, the draft budget includes the addition of a "Limited Term" Water Distribution Worker to help maintain water services while allowing a current employee to help with the project. Funding for this position will include reimbursements from Jenny Lind A-B Transmission project budget to the operating fund for the current employee's time spent on the project. Total Salaries and Benefits increased $585,682, a result of negotiated salary increases, higher medical insurance costs, and increased PERS costs.

Capital Outlay

The Proposed Capital Outlay budget includes the following equipment purchases and projects, as well as the lease-to-own vehicle costs. These expenditures are funded by operating revenues.

- District-Wide – Critical Generator Replacement (FEMA match)
- District-Wide – Lease to Own Vehicles
- District-Wide – Hydrant Replacements
- District-Wide – Asphalt Roller and Water Truck
- District-Wide – Line Locators, Engineering (1) and Utilities (2)
- Corp Yard – Snowplows (2) and Ground Penetrating Radar Kit
- West Point – Tow-Behind Air Compressor and Jackhammer
- Operations HQ – Remodel for Additional Office
- Copper Cove – Automatic Gates (Security)
- District-Wide – Doud's Landing Fuelbreak Project

Debt Service

The FY 2024-25 debt service budget is $3,574,625, $361,764 higher than FY 2023-24.

The District's debt is funded in part by transfers from Capital R&R funds, and includes the following debt instruments:

- USDA Ebbetts Pass Reach 3a Water Loan
- USDA AMI Water Loan
- Water CIP Loan – 2022
- Sewer CIP Loan – 2022
- PERS UAL Loan
- New Hogan Loan
- Water Fund Loan

- VacCon Truck Loan – 2020
- VacCon Truck Loan – 2021

Capital Improvement Program

The Proposed Capital Improvement Program (CIP) budget includes carryover projects approved in prior budgets and new projects. District policy requires a review of all capital projects and their funding requirements during the budget process, including current year funding needs for projects approved in prior budgets.

The CIP budget is $24,890,657, which includes $15,200,000 for water projects and $9,690,657 for wastewater projects. The District will finance these projects with a combination of state and federal grant funds ($4,425,000), low interest rate CIP loans ($14,313,890), Capital R&R funds ($5,028,038), and expansion funds ($1,323,729).

The CIP program will enable the District to complete high priority projects that are critical to maintaining safe and reliable delivery of water and wastewater services. These are projects that must be addressed as the costs will only increase over time. Staff will continue to aggressively pursue external sources of funding and the District will not initiate construction of those projects until the projects are fully funded.

The following are the proposed FY 2023-24 CIP projects:

Water:

- Copper Cove Tank B / Clearwell
- Lake Tulloch Intertie Project
- Copper Cove Zone B-C Transmission Pipeline & Pump Station
- Ebbetts Pass Sawmill Tank
- Hunters Raw Water Pumps (Hazard Mitigation)
- Jenny Lind Clearwell #2
- Jenny Lind A-B Transmission Line
- West Point Regulator Repair/Tule Removal

Wastewater:

- Arnold Secondary Clarifier/WWTP Improvements
- Copper Cove Lift Station 6, 8 & Force Main Bypass
- Copper Cove Lift Station 15 & 18 Rehab/Replacement
- Copper Cove Tertiary, DAF, and UV Improvements
- CC Pond 6 Dam Raise
- LC Biolac, Clarifier, & UV Improvements
- Huckleberry Lift Station Improvements
- West Point/Wilseyville Consolidation Project
- Collections System Rehabilitation and I&I Mitigation

REQUESTED ACTION:

The budget process has been a collaborative effort that required significant contributions from Department Heads and their budget teams, our General Manager, Michael Minkler, and valuable support from the Administrative Services Department. Additionally, Scott Nelsen and Kamiko Tsuchida of Eide Bailey stepped in to assist staff with budget preparation and development of a new budget report format.

The budget was presented to the Finance Committee on May 23, 2024, and to the Board on May 29. The Board and staff worked diligently to ensure costs were kept low while ensuring the District's critical work is completed safely and responsibly. We are pleased to submit the Proposed FY 2024-25 Operating and Capital Improvement Program (CIP) budgets and the FY 2024-25 Personnel Allocation to the Board for adoption.

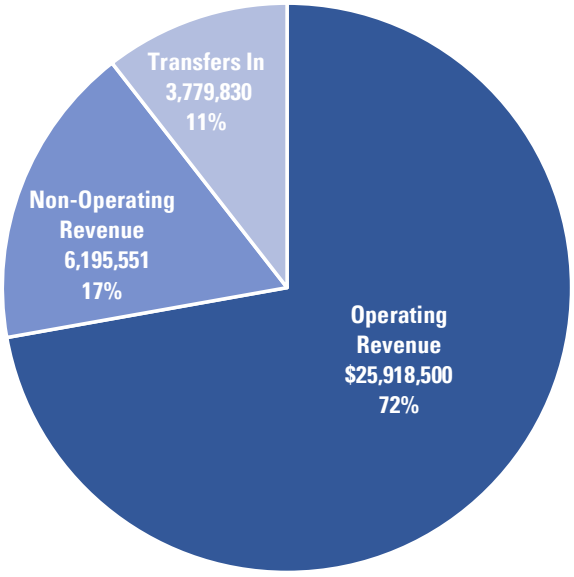
Attachments: Proposed FY 2024-25 Operating and CIP Budget and Personnel Allocation Document

- *Resolution 2024 - ___ Adopting the FY 2024-25 Operating and Capital Improvement Program Budgets*
- *Resolution 2024 - ___ Adopting the FY 2024-25 Personnel Allocation*

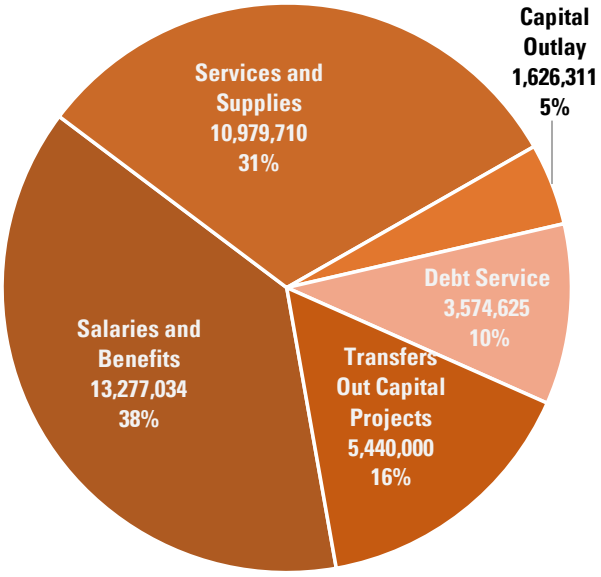
Calaveras County Water District
FY 2024-2025 Proposed Budget
District-Wide Budget Summary

	Schedule A.1 District Budget Summmary	FY 2024-25 Proposed Budget Water	FY 2024-25 Proposed Budget Wastewater	FY 2024-25 Proposed Budget Hydropower	FY 2024-25 Proposed Budget Total	FY 2023-24 Adopted Total
1	**Sources**					
2	Operating Revenue	$ 17,210,320	$ 8,708,180	$ -	$ 25,918,500	$ 21,696,612 *
3	Non-Operating Revenue	3,592,411	853,920	1,749,221	6,195,551	5,640,152
4	Transfers In	2,724,105	1,055,725	-	3,779,830	4,067,141
5	**Total Sources**	**23,526,836**	**10,617,825**	**1,749,221**	**35,893,881**	**31,403,905**
6	**Uses**					
7	Salaries and Benefits	9,580,240	3,543,376	153,418	13,277,034	12,691,352
8	Services and Supplies	7,060,623	2,830,771	1,088,315	10,979,710	9,972,539
9	Capital Outlay	1,307,519	318,792	-	1,626,311	808,482
10	Debt Service	2,130,391	1,444,234	-	3,574,625	3,212,861
11	Transfers Out Capital Projects	3,440,000	2,000,000	-	5,440,000	4,700,000
12	**Total Uses**	**23,518,774**	**10,137,173**	**1,241,733**	**34,897,680**	**31,385,234**
13	**Net Addition to/(Use of) Reserves**	**$ 8,062**	**$ 480,652**	**$ 507,488**	**$ 996,202**	**$ 18,671**

TOTAL DISTRICT INFLOWS: $35,893,881



TOTAL DISTRICT OUTFLOWS: $34,897,680

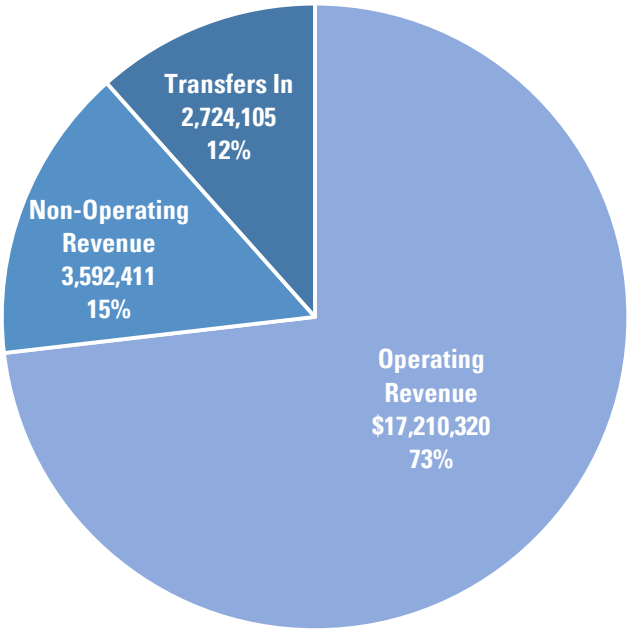


* FY 2023-24 Adopted budget for operating revenues adjusted to include $4.7M in R&R rate revenues, to align with new accounting treatments of these revenues in FY 2024-25. Accordingly, the transfers out to capital projects was updated to reflect the transfer of these funds.

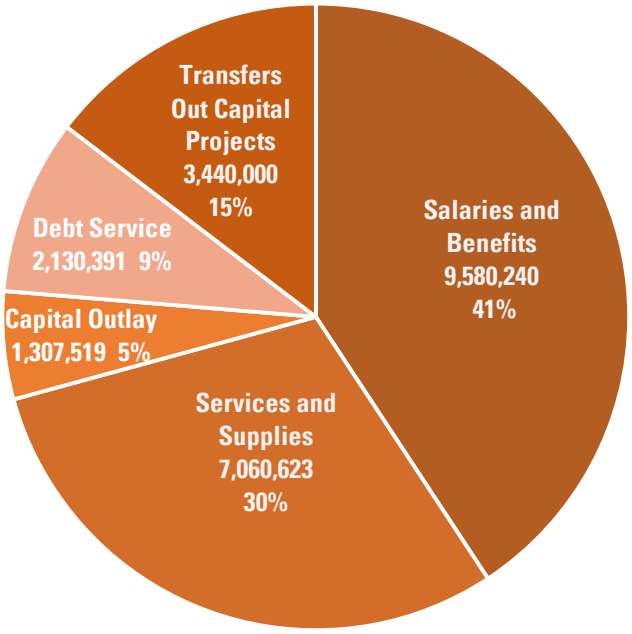
Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Summary

	Schedule B.1 Water Budget Summmary	FY 2023-24 Adopted Budget	FY 2024-25 Proposed Budget	Variance $
1	**Sources**			
2	Operating Revenue	$ 14,152,340	$ 17,210,320	$ 3,057,980 *
3	Non-Operating Revenue	4,366,187	3,592,411	(773,776)
4	Transfers In	3,047,460	2,724,105	(323,355)
5	**Total Sources**	**21,565,987**	**23,526,836**	**1,960,848**
6	**Uses**			
7	Salaries and Benefits	9,264,687	9,580,240	315,553
8	Services and Supplies	7,214,333	7,060,623	(153,709)
9	Capital Outlay	455,142	1,307,519	852,377
10	Debt Service	2,166,784	2,130,391	(36,393)
11	Transfers Out Capital Projects	3,400,000	3,440,000	40,000
12	**Total Uses**	**22,500,945**	**23,518,774**	**1,017,828**
13	**Net Addition to/(Use of) Reserves**	**$ (934,958)**	**$ 8,062**	**$ 943,020**

TOTAL WATER INFLOWS: $23,526,836



TOTAL WATER OUTFLOWS: $23,518,774



* FY 2023-24 Adopted budget for operating revenues adjusted to include $4.7M in R&R rate revenues, to align with new accounting treatments of these revenues in FY 2024-25. Accordingly, the transfers out to capital projects was updated to reflect the transfer of these funds.

Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Detail

	Schedule B.2 Water Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
1	**Revenues**					
2	**Operating Revenue**					
3	Water/Sewer Sales/Resid	$ 13,730,790	$ 8,533,192	$ 16,627,500	$ 2,896,710	21.1%
4	Irrigation Water Sales	11,000	(1,498)	13,500	2,500	22.7%
5	Water Sales - Fire Hydrant	200,000	135,782	178,900	(21,100)	-10.6%
6	Inspection Fees	-	122	-	-	0.0%
7	Account Establishment Fees	47,000	29,520	37,100	(9,900)	-21.1%
8	Delinquent Account Charge	55,000	3,067	50,600	(4,400)	-8.0%
9	Backflow Certification Testing	4,000	2,611	3,500	(500)	-12.5%
10	Install Water Meter	30,000	19,886	26,700	(3,300)	-11.0%
11	Repair Labor/Materials	9,000	-	2,000	(7,000)	-77.8%
12	Reimbursable Expense	40,000	75,062	86,140	46,140	115.4%
13	Other Water/Sewer Charges	-	50	-	-	0.0%
14	Concept Approval Fees	-	2,815	-	-	0.0%
15	Other Operating Revenue	25,550	180,616	184,380	158,830	621.6%
16	**Total Operating Revenue**	**14,152,340**	**8,981,225**	**17,210,320**	**3,057,980**	**21.6%**
17	**Non-Operating Revenue**					
18	Rental Revenue	60,590	12,571	60,590	-	0.0%
19	Interest Income/CCWD Investments	15,000	16,487	19,200	4,200	28.0%
20	Lease Interest Revenue	-	-	-	-	0.0%
21	Property Taxes	2,794,720	2,841,367	3,013,661	218,941	7.8%
22	Standby Fees	95,630	87,041	95,630	-	0.0%
23	Power Sales - North Fork	616,704	481,148	-	(616,704)	0.0%
24	Lease Revenue	-	-	-	-	0.0%
25	Power Sales - New Hogan	153,300	174,361	-	(153,300)	0.0%
26	Grant Revenue/Federal Agencies	-	70,290	393,100	393,100	0.0%
27	Grant Revenue/State Agencies	-	944	-	-	0.0%
28	Grant Revenue/Other Agencies	630,243	1,996	-	(630,243)	0.0%
29	Other Non-Operating Revenue	630,243	442,263	-	(630,243)	0.0%
30	Miscellaneous Income	-	10,492	10,230	10,230	0.0%
31	**Total Non-Operating Revenues**	**4,996,430**	**4,138,961**	**3,592,411**	**(1,404,019)**	**-28.1%**
32	**Total Revenues**	**19,148,770**	**13,120,185**	**20,802,731**	**1,653,960**	**8.6%**
33	**Transfer In**					
34	Transfer In - Debt (125/135/108)	1,590,389	1,464,424	1,590,389	-	0.0%
35	Transfer In - CIP (120/130)	691,541	-	641,716	(49,825)	-7.2%
36	Transfer In - Water Loan	-	-	492,000	492,000	#DIV/0!
37	Transfer In - Operating (125/135)	620,530	-	-	(620,530)	0.0%
38	Transfer In - Operating (108)	145,000	-	-	(145,000)	0.0%
39	**Total Transfers In**	**3,047,460**	**1,464,424**	**2,724,105**	**(323,355)**	**-10.6%**
40	**Total Sources**	**$ 22,196,230**	**$ 14,584,610**	**$ 23,526,836**	**$ 1,330,606**	**6.0%**

Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Detail

	Schedule B.2 Water Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
41	**O&M Expenses**					
42	**Salaries and Benefits**					
43	Salaries Wages	$ 5,606,668	$ 4,169,104	$ 5,621,629	$ 14,961	0.3%
44	Payouts	193,215	144,330	138,271	(54,944)	-28.4%
45	On Call Pay	15,403	-	15,403	-	0.0%
46	Standby Pay	17,885	9,952	17,885	-	0.0%
47	Overtime	183,690	144,192	157,315	(26,375)	-14.4%
48	CTO Payouts	-	82,525	101,178	101,178	0.0%
49	Benefits	2,161,551	1,729,138	2,397,535	235,984	10.9%
50	Retirement Expense	627,369	511,743	622,935	(4,433)	-0.7%
51	CalPERS UAL	338,456	275,942	470,421	131,965	39.0%
52	Retirement Health Savings	120,450	28,386	37,668	(82,782)	-68.7%
53	**Total Salaries and Benefits**	**9,264,687**	**7,095,312**	**9,580,240**	**315,553**	**3.4%**
54	**Services and Supplies**					
55	Power	1,588,053	1,126,274	1,292,983	(295,070)	-18.6%
56	Water	7,665	4,830	8,432	767	10.0%
57	Sewage	32,098	-	32,098	-	0.0%
58	Telephone	94,506	65,832	89,717	(4,789)	-5.1%
59	Refuse/Disposal	18,761	13,341	16,060	(2,701)	-14.4%
60	Materials & Supplies	154,906	132,524	149,285	(5,621)	-3.6%
61	Herbicide	730	421	1,095	365	50.0%
62	Safety Equipment/Consumables	31,098	27,255	29,784	(1,314)	-4.2%
63	Tools	26,037	28,047	30,879	4,842	18.6%
64	Uniforms - New	18,250	14,827	16,060	(2,190)	-12.0%
65	Materials and Supplies - CalFire	13,140	23	13,140	-	0.0%
66	Safety Equipment	9,636	3,119	31,025	21,389	222.0%
67	Lab Supplies, Consumables	29,200	62,610	29,200	-	0.0%
68	Ozone System Parts	10,000	564	10,000	-	0.0%
69	Electrical Parts Replacement	51,100	36,420	51,100	-	0.0%
70	Leak Repair Supplies	160,000	68,995	120,000	(40,000)	-25.0%
71	Road Repair Materials	18,871	25,117	22,813	3,942	20.9%
72	SCADA, Radio Supplies	12,410	748	38,003	25,593	206.2%
73	Septic tanks, Repair & New	-	5,384	-	-	0.0%
74	Meters, New & Replacement	10,000	12,477	10,000	-	0.0%
75	Aerator/Compressor Repair	13,140	4,566	13,140	-	0.0%
76	Computers/Peripherals	13,505	2,778	-	(13,505)	0.0%
77	Controls Sys Pressure Transducer	-	1,581	-	-	0.0%
78	HVAC	6,205	13,642	11,315	5,110	82.4%
79	Mixers/Valves/Repair Kits/ Actuators	18,250	-	18,250	-	0.0%
80	Monitor Wells Repair	3,650	-	3,650	-	0.0%
81	Pumps/Motors Repair	102,200	26,335	102,200	-	0.0%
82	Admin Technologies Comm	82,351	14,659	78,329	(4,022)	-4.9%

Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Detail

	Schedule B.2 Water Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
83	Chemicals	403,612	264,977	365,000	(38,612)	-9.6%
84	Outside Services/Repairs	$ 112,410	$ 68,453	$ 98,723	$ (13,687)	-12.2%
85	Fire Ext. Testing Cust. Base	$ 1,606	$ -	$ 1,606	$ -	0.0%
86	Spraying - Weeds & Insects	31,390	14,691	31,208	(183)	-0.6%
87	Snow Removal	5,256	1,125	5,256	-	0.0%
88	Uniform Launder	16,553	19,506	17,328	775	4.7%
89	Fire Hydrant Maintenance	41,336	797	41,336	-	0.0%
90	Service Maintenance Contracts	93,181	104,907	107,739	14,559	15.6%
91	Instrumentation Tech	6,205	-	6,205	-	0.0%
92	Ozone System PM	7,000	-	7,000	-	0.0%
93	Backflow Device Testing	4,000	2,656	4,000	-	0.0%
94	SCADA Consulting	7,300	1,440	7,300	-	0.0%
95	Hauling /Dig/Crane/Excavator	3,650	1,425	3,650	-	0.0%
96	Pave/Seal/Asphalt Repair	83,950	32,038	54,750	(29,200)	-34.8%
97	Drug & Alcohol Testing	2,920	2,586	2,920	-	0.0%
98	Tank Cleaning	50,000	28,960	64,730	14,730	29.5%
99	Building Repairs	25,550	1,517	25,550	-	0.0%
100	UV System PM	7,300	-	7,300	-	0.0%
101	Recruiting	12,045	11,924	21,718	9,673	80.3%
102	Claims/Damages	3,650	3,667	3,650	-	0.0%
103	Computer License/Maintenance Contracts	180,880	95,178	206,590	25,710	14.2%
104	Janitorial Services	17,801	14,729	17,827	26	0.1%
105	Laboratory Services	105,850	48,235	105,850	-	0.0%
106	Rentals (Non Vehicles/Equip)	3,650	1,460	3,650	-	0.0%
107	Outside Legal Fees	178,850	181,152	193,450	14,600	8.2%
108	Accounting/Auditing	30,368	20,490	32,704	2,336	7.7%
109	Advertising/Publicity	2,555	1,319	2,555	-	0.0%
110	Professional Services	576,445	268,628	859,724	283,280	49.1%
111	Operating Exp/Fuel & Oil	262,910	210,412	262,910	-	0.0%
112	Repairs and Parts	80,300	115,215	98,550	18,250	22.7%
113	Fuel/Repair - Generators	14,600	3,570	14,600	-	0.0%
114	Rental Exp/Vehicle and Eq	8,395	1,387	8,395	-	0.0%
115	Lease Expense/Vehicle Eq	26,645	-	26,645	-	0.0%
116	Forms and Supplies	2,920	496	2,154	(767)	-26.3%
117	Permits and Licenses	15,768	11,231	35,077	19,309	122.5%
118	Late Fees	-	1,160	-	-	0.0%
119	Director Elections	-	-	3,650	3,650	0.0%
120	Postage	11,644	8,731	4,745	(6,899)	-59.2%
121	Publications/Subscriptions	1,278	1,366	10,549	9,271	725.7%
122	Memberships/Dues	93,288	96,160	103,715	10,427	11.2%
123	Recording/Title Reports	-	17	1,241	1,241	0.0%
124	Printing	730	-	365	(365)	-50.0%

Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Detail

	Schedule B.2 Water Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
125	Training, Conf & Travel	86,651	49,882	99,609	12,958	15.0%
126	Other Travel Costs	5,001	2,657	5,402	402	8.0%
127	Purchased Water	$ 20,000	$ 992	$ 20,000	$ -	0.0%
128	New Hogan Op/Maint Expense	$ 474,000	$ -	$ 346,020	$ (127,980)	-27.0%
129	Retiree Health Costs	559,910	488,639	658,460	98,550	17.6%
130	Bad Debt Expense	29,200	31,835	39,420	10,220	35.0%
131	Rate Assistance Program	43,800	18,349	43,800	-	0.0%
132	Unemployment Claims	7,300	17,448	26,280	18,980	260.0%
133	Insurance	205,203	230,076	241,648	36,445	17.8%
134	State Water/Sewer Fees	98,400	105,978	219,000	120,600	122.6%
135	Federal Dam & Admin Fees	512,460	393,066	23,360	(489,100)	-95.4%
136	State Water Right Fees	62,415	109,982	21,074	(41,341)	-66.2%
137	Mandated Plans	13,140	2,087	-	(13,140)	0.0%
138	Water Efficiency	2,920	730	2,920	-	0.0%
139	Third Party Payment Processing	24,528	146,169	213,598	189,070	770.8%
140	Miscellaneous Operating Costs	-	94	-	-	0.0%
141	LAFCO Contribution	9,855	9,423	9,563	(292)	-3.0%
142	**Total Services and Supplies**	**7,214,333**	**4,941,381**	**7,060,623**	**(153,709)**	**-2.1%**
143	**Capital Outlay**					
144	Vehicles Purchased	-		90,520	90,520	0.0%
145	Vehicles Capital Lease - Current	123,063	204,518	380,484	257,421	209.2%
146	Vehicles Capital Lease -New	99,455	-	-	(99,455)	0.0%
147	Equipment Purchased	110,192	11,838	241,265	131,073	118.9%
148	Projects	122,432	-	595,250	472,818	386.2%
149	**Total Capital Outlay**	**455,142**	**216,357**	**1,307,519**	**852,377**	**187.3%**
150	**Total O&M Expense Budget**	**16,934,161**	**12,253,050**	**16,651,361**	**1,014,221**	**6.0%**
151	**Transfers Out**	**3,400,000**	**-**	**3,440,000**	**40,000**	**1.2%**
152	**Debt Service**					
153	Interest Exp - PERS UAL Loan	104,130	104,130	95,938	(8,192)	-7.9%
154	Interest Exp - USDA AMI Loan	83,703	65,970	82,145	(1,558)	-1.9%
155	Interest Exp - VacCon Truck 2021	4,581	4,581	1,371	(3,211)	-70.1%
156	Interest Exp - USDA EP Reach 3A	52,344	52,344	51,234	(1,110)	-2.1%
157	Interest Exp - New Hogan Loan	3,419	-	1,605	(1,815)	-53.1%
158	Interest Exp - VacCon Truck 2020	2,331	2,279	1,004	(1,326)	-56.9%
159	Interest Exp - Water CIP Loan 2022	557,542	557,542	535,227	(22,315)	-4.0%
160	Principal Payment - PERS UAL Loan	246,740	246,740	246,740	-	0.0%
161	Principal Payment - USDA AMI Loan	89,000	89,000	91,000	2,000	2.2%
162	Principal Payment - VacCon Truck 2021	85,891	85,891	89,102	3,211	3.7%
163	Principal Payment - USDA EP Reach 3A	48,800	48,800	49,900	1,100	2.3%
164	Principal Payment - New Hogan	40,327	-	35,651	(4,676)	-11.6%
165	Principal Payment - VacCon Truck 2020	88,975	66,500	67,475	(21,501)	-24.2%

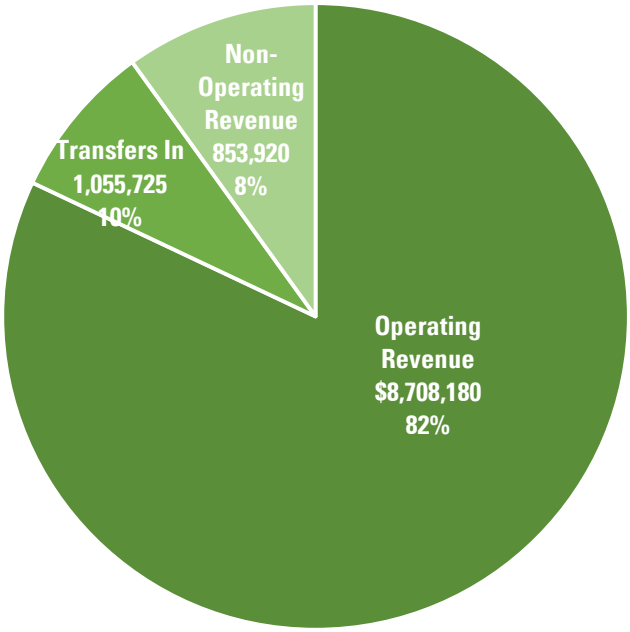
Calaveras County Water District
FY 2024-2025 Proposed Budget
Water Fund Budget Detail

	Schedule B.2 Water Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
166	Principal Payment - Water CIP Loan 2022	759,000	759,000	782,000	23,000	3.0%
167	**Total Debt Service**	**2,166,784**	**2,082,778**	**2,130,391**	**(36,393)**	**-1.7%**
168	**Total Expenses**	**22,500,945**	**14,335,828**	**23,518,774**	**1,017,828**	**4.5%**
169	**Net Addition to/(Use of) Reserves**	**$ (304,715)**	**$ 248,782**	**$ 8,062**	**$ 312,777**	

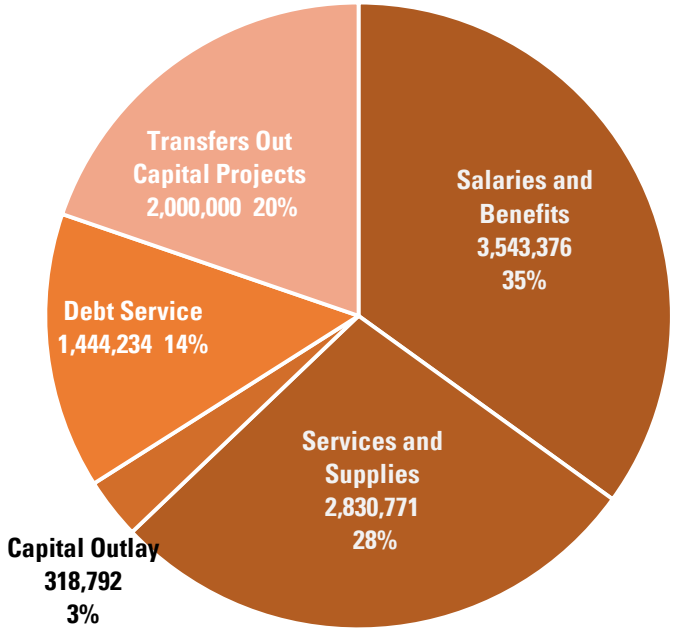
Calaveras County Water District
FY 2024-2025 Proposed Budget
Wastewater Fund Budget Summary

	Schedule C.1 Wastewater Budget Summary	FY 2023-24 Adopted Budget	FY 2024-25 Proposed Budget	Variance $	
1	**Sources**				
2	Operating Revenue	$ 7,544,271	$ 8,708,180	$ 1,163,909	*
3	Non-Operating Revenue	1,273,965	853,920	(420,045)	
4	Transfers In	1,019,681	1,055,725	36,044	
5	**Total Sources**	**9,837,918**	**10,617,825**	**779,907**	
6	**Uses**				
7	Salaries and Benefits	3,426,665	3,543,376	116,711	
8	Services and Supplies	2,758,206	2,830,771	72,565	
9	Capital Outlay	353,340	318,792	(34,548)	
10	Debt Service	1,046,077	1,444,234	398,157	
11	Transfers Out Capital Projects	1,300,000	2,000,000	700,000	
12	**Total Uses**	**8,884,288**	**10,137,173**	**1,252,885**	
13	**Net Addition to/(Use of) Reserves**	**$ 953,629**	**$ 480,652**	**$ (472,978)**	

TOTAL WASTEWATER INFLOWS: $10,617,825



TOTAL WASTEWATER OUTFLOWS: $10,137,173



* FY 2023-24 Adopted budget for operating revenues adjusted to include $4.7M in R&R rate revenues, to align with new accounting treatments of these revenues in FY 2024-25. Accordingly, the transfers out to capital projects was updated to reflect the transfer of these funds.

Calaveras County Water District
FY 2024-2025 Proposed Budget
Wastewater Fund Budget Detail

	Schedule C.2 Wastewater Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
1	**Revenues**					
2	**Operating Revenue**					
3	Water/Sewer Sales/Resid	$ 7,417,821	$ 5,276,348	$ 8,613,300	$ 1,195,479	16.1%
4	Inspection Fees	5,000	325	3,700	(1,300)	-26.0%
5	Account Establishment Fees	3,000	568	800	(2,200)	-73.3%
6	Delinquent Account Charge	40,000	-	20,400	(19,600)	-49.0%
7	Repair Labor/Materials	16,000	1,144	3,000	(13,000)	-81.3%
8	Reimbursable Expense	53,000	440	31,860	(21,140)	-39.9%
9	Other Water/Sewer Charges	-	-	-	-	0.0%
10	Other Operating Revenue	9,450	6,135	35,120	25,670	271.6%
11	**Total Operating Revenue**	**7,544,271**	**5,284,960**	**8,708,180**	**1,163,909**	**15.4%**
12	**Non-Operating Revenue**					
13	Rental Revenue	22,410	1,013	22,410	-	0.0%
14	Interest Income/CCWD Investments	-	-	-	-	0.0%
15	Property Taxes	735,272	682,906	792,370	57,098	7.8%
16	Standby Fees	35,370	32,193	35,370	-	0.0%
17	Power Sales - North Fork	228,096	177,959	-	(228,096)	0.0%
18	Power Sales - New Hogan	56,700	64,490	-	(56,700)	0.0%
19	Grant Revenue/Federal Agencies	-	114,665	-	-	0.0%
20	Grant Revenue/State Agencies	-	28,666	-	-	0.0%
21	Grant Revenues/Other Agencies	-	146,224			
22	Other Non-Operating Revenue	196,117	38,584	-	(196,117)	0.0%
23	Miscellaneous Income	-	3,879	3,770	3,770	0.0%
24	**Total Non-Operating Revenues**	**1,273,965**	**1,290,580**	**853,920**	**(420,045)**	**-33.0%**
25	**Total Revenues**	**8,818,237**	**6,575,540**	**9,562,100**	**743,863**	**8.4%**
26	**Transfer In**					
27	Transfer In - Debt (125/135/108)	753,168	753,168	753,168	-	0.0%
28	Transfer In - CIP (120/130)	266,513	-	302,557	36,044	13.5%
29	Transfer In - Capital Outlay (108)	-	-	-	-	0.0%
30	Transfer In - Operating (108)	-	-	-	-	0.0%
31	**Total Transfers In**	**1,772,849**	**753,168**	**1,055,725**	**(717,124)**	**-40.5%**
32	**Total Sources**	**10,591,086**	**7,328,708**	**10,617,825**	**26,739**	**0.3%**
33	**O&M Expenses**					
34	**Salaries and Benefits**					
35	Salaries Wages	2,073,699	1,406,467	2,079,232	5,533	0.3%
36	Payouts	71,463	53,087	51,141	(20,322)	-28.4%
37	On Call Pay	5,697	-	5,697	-	0.0%
38	Standby Pay	6,615	3,948	6,615	-	0.0%
39	Overtime	67,940	52,265	58,185	(9,755.10)	-14.4%

Calaveras County Water District
FY 2024-2025 Proposed Budget
Wastewater Fund Budget Detail

	Schedule C.2 Wastewater Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
40	CTO Payouts	$ -	$ 30,519	$ 37,422	$ 37,422	0.0%
41	Benefits	$ 799,478	$ 565,519	$ 886,759	$ 87,282	10.9%
42	Retirement Expense	232,040	131,317	230,401	(1,640)	-0.7%
43	CalPERS UAL	125,183	56,427	173,991	48,809	39.0%
44	Retirement Health Savings	44,550	49,497	13,932	(30,618)	-68.7%
45	**Total Salaries and Benefits**	**3,426,665**	**2,349,046**	**3,543,376**	**116,711**	**3.4%**
46	**Services and Supplies**					
47	Power	587,362	416,864	478,227	(109,135)	-18.6%
48	Water	2,835	1,703	3,119	284	10.0%
49	Sewage	11,872	33,054	11,872	-	0.0%
50	Telephone	34,954	23,323	33,183	(1,771)	-5.1%
51	Refuse/Disposal	6,939	4,624	5,940	(999)	-14.4%
52	Materials & Supplies	57,294	29,672	55,215	(2,079)	-3.6%
53	Herbicide	270	148	405	135	50.0%
54	Safety Equipment/Consumables	11,502	7,290	11,016	(486)	-4.2%
55	Tools	9,630	10,117	11,421	1,791	18.6%
56	Uniforms - New	6,750	5,484	5,940	(810)	-12.0%
57	Materials and Supplies - CalFire	4,860	9	4,860	-	0.0%
58	Safety Equipment	3,564	1,153	11,475	7,911	222.0%
59	Lab Supplies, Consumables	10,800	2,631	10,800	-	0.0%
60	UV Bulb/MBR Replacement	110,000	712	110,000	-	0.0%
61	Electrical Parts Replacement	18,900	50,758	18,900	-	0.0%
62	Road Repair Materials	6,980	1,901	8,438	1,458	20.9%
63	SCADA, Radio Supplies	4,590	-	14,056	9,466	206.2%
64	Septic Tanks, Repair & New	11,200	12,042	12,000	800	7.1%
65	Aerator/Compressor Repair	4,860	9,943	4,860	-	0.0%
66	Computers/Peripherals	4,995	755	-	(4,995)	0.0%
67	Control System/Pressure Transducer	8,200	-	9,000	800	9.8%
68	Headworks/Solids Removal and Repair	20,160	24,179	21,660	1,500	7.4%
69	HVAC	2,295	7,466	4,185	1,890	82.4%
70	Mixers/Valves/Repair Kits/ Actuators	6,750	3,084	6,750	-	0.0%
71	Monitor Wells Repair	1,350	1,147	1,350	-	0.0%
72	Pumps/Motors Repair	37,800	270,602	37,800	-	0.0%
73	Solids Handling Eq Repair	5,000	3,693	5,000	-	0.0%
74	Admin Technologies Comm	30,459	5,422	28,971	(1,488)	-4.9%
75	Chemicals	149,281	187,859	135,000	(14,281)	-9.6%
76	Outside Services/Repairs	41,576	18,445	36,514	(5,062)	-12.2%
77	Fire Ext. Testing Cust. Base	594	-	594	-	0.0%
78	Spraying - Weeds & Insects	11,610	12,126	11,543	(68)	-0.6%
79	Snow Removal	1,944	-	1,944	-	0.0%
80	Uniform Launder	6,122	7,214	6,409	287	4.7%

Calaveras County Water District
FY 2024-2025 Proposed Budget
Wastewater Fund Budget Detail

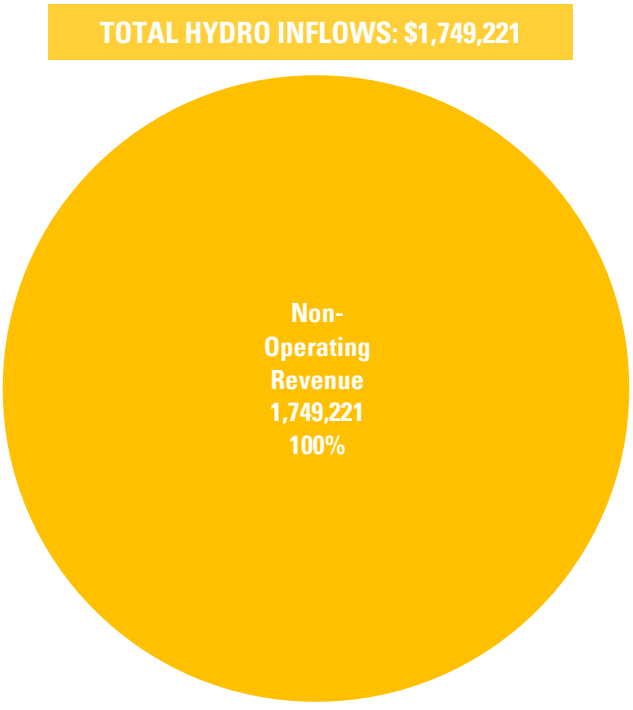
	Schedule C.2 Wastewater Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
81	Fire Hydrant Maintenance	$ 15,289	$ 128	$ 15,289	$ -	0.0%
82	Service Maintenance Contracts	$ 34,464	$ 32,386	$ 39,849	$ 5,385	15.6%
83	Groundwater Monitoring	51,975	26,836	45,000	(6,975)	-13.4%
84	Instrumentation Tech	2,295	4,496	2,295	-	0.0%
85	SCADA Consulting	2,700	-	2,700	-	0.0%
86	Hauling /Dig/Crane/Excavator	1,350	-	1,350	-	0.0%
87	Pave/Seal/Asphalt Repair	31,050	1,901	20,250	(10,800)	-34.8%
88	Drug & Alcohol Testing	1,080	-	1,080	-	0.0%
89	Septic Hauling Bio-solids Hauling	40,000	33,771	50,000	10,000	25.0%
90	Building Repairs	9,450	1,262	9,450	-	0.0%
91	UV System PM	2,700	300	2,700	-	0.0%
92	Recruiting	4,455	-	8,033	3,578	80.3%
93	Claims/Damages	1,350	-	1,350	-	0.0%
94	Computer License/Maintenance Contracts	66,901	10,778	76,410	9,509	14.2%
95	Janitorial Services	6,584	1,311	6,593	9	0.1%
96	Laboratory Services	39,150	45,417	39,150	-	0.0%
97	Rentals (Non Vehicles/Equip)	1,350	540	1,350	-	0.0%
98	Outside Legal Fees	66,150	28,463	71,550	5,400	8.2%
99	Accounting/Auditing	11,232	4,180	12,096	864	7.7%
100	Advertising/Publicity	945	-	945	-	0.0%
101	Professional Services	213,206	9,399	371,816	158,610	74.4%
102	Operating Exp/Fuel & Oil	97,241	124,960	97,241	-	0.0%
103	Repairs and Parts	29,700	41,651	36,450	6,750	22.7%
104	Fuel/Repair - Generators	5,400	5,106	5,400	-	0.0%
105	Rental Exp/Vehicle and Eq	3,105	69,127	3,105	-	0.0%
106	Lease Expense/Vehicle Eq	9,855	-	9,855	-	0.0%
107	Forms and Supplies	1,080	-	797	(284)	-26.3%
108	Permits and Licenses	5,832	7,407	12,974	7,142	122.5%
109	Late Fees	-	660	-	-	0.0%
110	Director Elections	-	-	1,350	1,350	0.0%
111	Postage	4,307	-	1,755	(2,552)	-59.2%
112	Publications/Subscriptions	473	229	3,902	3,429	725.7%
113	Memberships/Dues	34,504	5,361	38,360	3,856	11.2%
114	Recording/Title Reports	-	49	459	459	0.0%
115	Printing	270	-	135	(135)	-50.0%
116	Training, Conf & Travel	32,049	5,363	36,842	4,793	15.0%
117	Other Travel Costs	1,850	3,249	1,998	149	8.0%
118	New Hogan Op/Maint Expense	-	261	127,980	127,980	0.0%
119	Retiree Health Costs	207,090	208,354	243,540	36,450	17.6%
120	Bad Debt Expense	10,800	6	14,580	3,780	35.0%
121	Rate Assistance Program	16,200	-	16,200	-	0.0%
122	Unemployment Claims	2,700	10,659	9,720	7,020	260.0%

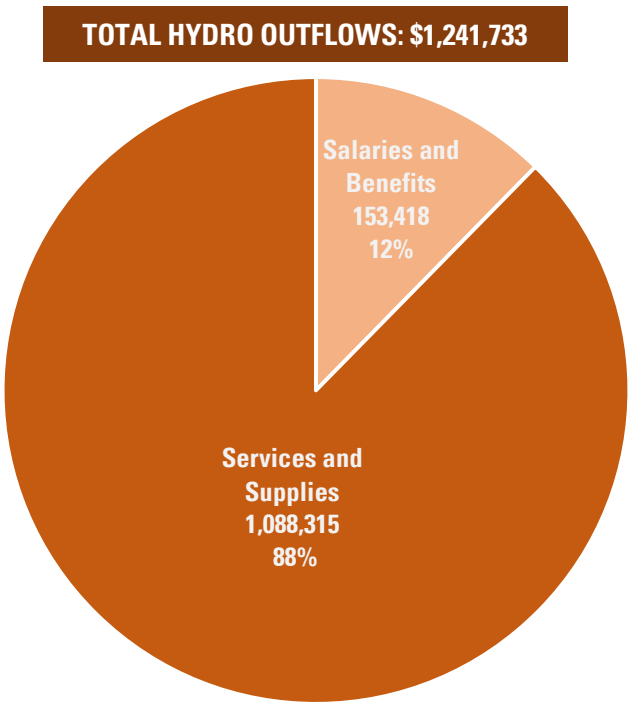
Calaveras County Water District
FY 2024-2025 Proposed Budget
Wastewater Fund Budget Detail

	Schedule C.2 Wastewater Budget Detail	FY 2023-24 Adopted Budget	FY 2023-24 as of 04/30/24	FY 24-25 Proposed Budget	Variance $ to Budget	Variance % to Budget
123	Insurance	75,897	86,031	89,377	13,480	17.8%
124	State Water/Sewer Fees	$ 151,600	$ 198,263	$ 81,000	$ (70,600)	-46.6%
125	Federal Dam & Admin Fees	$ 189,540	$ -	$ 8,640	$ (180,900)	-95.4%
126	State Water Right Fees	23,085	-	7,795	(15,290)	-66.2%
127	Mandated Plans	4,860	15,389	-	(4,860)	0.0%
128	Water Efficiency	1,080	15,345	1,080	-	0.0%
129	Third Party Payment Processing	9,072	6,454	79,002	69,930	770.8%
130	LAFCO Contribution	3,645	3,485	3,537	(108)	-3.0%
131	Misc. Non-Operating Costs	-	-	-	-	0.0%
132	**Total Services and Supplies**	**2,758,206**	**2,161,996**	**2,830,771**	**72,565**	**2.6%**
133	**Capital Outlay**					
134	Vehicles Capital Lease - Current	82,301	75,644	140,727	58,426	71.0%
135	Vehicles Capital Lease -New	-	38,661	33,480	33,480	0.0%
136	Equipment Purchased	75,756	61,225	89,235	13,479	17.8%
137	Projects	195,283	77,130	55,350	(139,933)	-71.7%
138	Sewer Sys Parts Ext Upgrades	-	60,473	-	-	0.0%
139	**Total Capital Outlay**	**353,340**	**313,133**	**318,792**	**(34,548)**	**-9.8%**
140	**Total O&M Expense Budget**	**6,538,211**	**4,824,176**	**6,692,940**	**154,729**	**2.4%**
141	**Transfers Out**	**1,300,000**	**-**	**2,000,000**	**700,000**	**0.0%**
142	**Debt Service**					
143	Interest Exp - PERS UAL Loan	38,514	38,514	35,484	(3,030)	-7.9%
144	Interest Exp - VacCon Truck 2021	1,695	1,694	507	(1,187)	-70.1%
145	Interest Exp - Water Fund Loan	7,515	-	10,433	2,918	38.8%
146	Interest Exp - New Hogan Loan	1,265	-	593	(671)	-53.1%
147	Interest Exp - VacCon Truck 2020	862	431	372	(491)	-56.9%
148	Interest Exp - Sewer CIP Loan 2022	339,168	339,168	325,920	(13,248)	-3.9%
149	Principal Payment - PERS UAL Loan	91,260	91,260	91,260	-	0.0%
150	Principal Payment - VacCon Truck 2021	31,768	31,768	32,955	1,187	3.7%
151	Principal Payment - Water Fund Loan	72,207	-	481,567	409,360	566.9%
152	Principal Payment - New Hogan	14,915	-	13,186	(1,729)	-11.6%
153	Principal Payment - VacCon Truck 2020	32,909	24,596	24,956	(7,952)	-24.2%
154	Principal Payment - Sewer CIP Loan 2022	414,000	414,000	427,000	13,000	3.1%
155	**Total Debt Service**	**1,046,077**	**941,432**	**1,444,234**	**398,157**	**38.1%**
156	**Total Expenses**	**8,884,288**	**5,765,608**	**10,137,173**	**1,252,885**	**14.1%**
157	**Net Addition to/(Use of) Reserves**	**$ 1,706,797**	**$ 1,563,100**	**$ 480,652**	**$ (1,226,146)**	

Calaveras County Water District
FY 2024-2025 Proposed Budget
Hydroelectric Fund Budget Summary

	Schedule D.1 Hydropower Budget Summary	FY 2023-24 Adopted Budget	FY 2024-25 Proposed Budget	Variance $
1	**Sources**			
2	Operating Revenue	$ -	$ -	$ -
3	Non-Operating Revenue	-	1,749,221	1,749,221
4	Transfers In	-	-	-
5	**Total Sources**	**-**	**1,749,221**	**1,749,221**
6	**Uses**			
7	Salaries and Benefits	-	153,418	153,418
8	Services and Supplies	-	1,088,315	1,088,315
9	Capital Outlay	-	-	-
10	Debt Service	-	-	-
11	Transfers Out	-	-	-
12	**Total Uses**	**-**	**1,241,733**	**1,241,733**
13	**Net Addition to/(Use of) Reserves**	**$ -**	**$ 507,488**	**$ 507,488**





Calaveras County Water District
FY 2024-2025 Proposed Budget
Hydroelectric Fund Budget Detail

	Schedule D.2 Hydropower Budget Detail	FY 2023-24 Adopted Budget	FY 24-25 Proposed Budget	Variance $
1	**Non-Operating Revenue**			
2	Power Sales - North Fork	$ -	$ 819,600	$ 819,600
3	Power Sales - New Hogan	-	183,800	183,800
4	Grant Revenue/Federal Agencies	-	-	-
5	Grant Revenue/State Agencies	-	-	-
6	Other Non-Operating Revenue	-	745,821	745,821
7	Miscellaneous Income	-	-	-
8	**Total Non-Operating Revenues**	**-**	**1,749,221**	**1,749,221**
9	**Total Revenues**	**-**	**1,749,221**	**1,749,221**
10	**O&M Expenses**			
11	**Salaries and Benefits**			
12	Salaries Wages	-	113,880	113,880
13	Payouts	-	188	188
14	On Call Pay	-	-	-
15	Standby Pay	-	-	-
16	Overtime	-	-	-
17	CTO Payouts	-	-	-
18	Benefits	-	26,616	26,616
19	Retirement Expense	-	11,559	11,559
20	CalPERS UAL	-	455	455
21	Retirement Health Savings	-	720	720
22	**Total Salaries and Benefits**	**-**	**153,418**	**153,418**
23	**Services and Supplies**			
24	Outside Legal Fees	-	75,000	75,000
25	Professional Services	-	260,000	260,000
26	Federal Dam & Admin Fees	-	670,000	670,000
27	State Water Right Fees	-	83,315	83,315
28	**Total Supplies and Services**	**-**	**1,088,315**	**1,088,315**
29	**Capital Outlay**			
30	Vehicles Purchased	-	-	-
31	Vehicles Capital Lease - Current	-	-	-
32	Vehicles Capital Lease -New	-	-	-
33	Buildings	-	-	-
34	Equipment Purchased	-	-	-
35	Projects	-	-	-
36	**Total Capital Outlay**	**-**	**-**	**-**
37	**Transfers Out**	**-**	**-**	**-**
38	**Total O&M Expense Budget**	**-**	**1,241,733**	**1,241,733**
39	**Total Expenses**	**-**	**1,241,733**	**1,241,733**
40	**Net Addition to/(Use of) Reserves**	**$ -**	**$ 507,488**	**$ 507,488**

Calaveras County Water District
FY 2024-2025 Proposed Budget
Salaries & Benefits Detail by Department

Department	Non-Dept	Utilities	Gen Mgmt	Board	Engineering	Adm Svcs	Water Res	All Department Total
Number of FTE's:	**-**	**52**	**5**	**-**	**8**	**10**	**2**	**77**
Salaries & Wages								
Salaries Wages	$ -	$ 4,870,255	$ 681,023	$ 43,200	$ 1,029,445	$ 959,200	$ 231,618	$ 7,814,741
Payouts	-	124,900	38,000	-	13,900	12,300	500	189,600
On Call Pay	-	21,100	-	-	-	-	-	21,100
Standby Pay	-	23,500	-	-	1,000	-	-	24,500
Overtime	-	200,000	1,500	-	6,500	6,000	1,500	215,500
Total Salaries & Wages	**-**	**5,239,755**	**720,523**	**43,200**	**1,050,845**	**977,500**	**233,618**	**8,265,441**
Employee Benefits								
CTO Payouts	-	114,800	3,800	-	19,500	500	-	138,600
Benefits	-	2,219,400	178,614	107,352	322,865	414,352	68,327	3,310,910
Medical Reimbursements	-	-	-	-	-	-	-	-
Retirement Expense	-	551,619	75,239	-	108,762	107,585	21,690	864,895
CalPERS UAL	396,388	164,998	23,063	-	29,272	30,396	751	644,868
Retirement Health Savings	-	31,920	3,000	-	7,680	7,800	1,920	52,320
Total Benefits	**396,388**	**3,082,737**	**283,716**	**107,352**	**488,079**	**560,633**	**92,688**	**5,011,593**
Total Salaries & Benefits	**$ 396,388**	**$ 8,322,492**	**$ 1,004,239**	**$ 150,552**	**$ 1,538,924**	**$ 1,538,133**	**$ 326,306**	**$ 13,277,034**

Calaveras County Water District
FY 2024-2025 Proposed Budget
Budget Summary by Department

Department	Salaries and Benefits	Services and Supplies	Capital Outlay	Debt Service	Department Total	FY 2023-24 Adopted	Variance $
Board of Directors	$ 150,552	$ 31,150	$ -	$ -	$ 181,702	$ 160,494	$ 21,208
General Management	1,004,239	514,126	-	-	1,518,365	1,400,695	117,670
Administrative Services	1,538,133	889,708	-	-	2,427,841	2,030,015	397,826
Engineering	1,538,924	719,200	7,500	-	2,265,624	1,707,411	558,213
Utilities	8,322,492	5,297,818	1,195,711	-	14,816,021	14,455,853	360,168
Water Resources	326,306	2,040,013	393,100	-	2,759,419	2,180,550	578,869
Non Departmental	396,388	1,487,695	30,000	-	1,914,083	1,537,355	376,728
Debt Service	-	-	-	3,574,625	3,574,625	3,212,861	361,764
Total Operating Expenditures	**$ 13,277,034**	**$ 10,979,710**	**$ 1,626,311**	**$ 3,574,625**	**$ 29,457,680**	**$ 26,685,234**	**$ 2,772,446**

Calaveras County Water District
FY 2024-2025 Proposed Budget
Capital Outlay Detail

Capital Type	Dept	Qty	Location	Description	Water	Sewer	Total Cost
Capital Lease	54	29	District Wide	Vehicle Lease to Own - Current	$ 380,484	$ 140,727	$ 521,211
Capital Lease	54	8	District Wide	FY 2024-25 Vehicle Lease to Own - Upfit Costs	90,520	33,480	124,000
Equipment	54	1	District Wide	Asphalt Roller	73,000	27,000	100,000
Equipment	54	1	District Wide	Water Truck	109,500	40,500	150,000
Equipment	54	2	Corp Yard	Snow Plows	7,300	2,700	10,000
Equipment	54	1	West Point	Tow-Behind Air Compressor & Jackhammer	21,900	8,100	30,000
Equipment	54		Corp Yard	Ground Penetrating Radar Kit	13,140	4,860	18,000
Equipment	54	2	District Wide	Line Locators - Replacement	10,950	4,050	15,000
Equipment	58	1	District Wide	Line Locator - Replacement	5,475	2,025	7,500
Projects	54		Copper Cove	Automatic Gate	36,500	13,500	50,000
Projects	54	15	District-Wide	Hydrant Replacements	52,500	-	52,500
Projects	54		District-Wide	Critical Generator Rplcmt (25% match)	91,250	33,750	125,000
Projects	50		Operations HQ	Office Remodel for Additional Office	21,900	8,100	30,000
Projects	60		District-Wide	Doud Fuelbreak Project	393,100	-	393,100
				Total	**$ 1,307,519**	**$ 318,792**	**$ 1,626,311**

Calaveras County Water District
FY 2024-2025 Proposed Budget
Fund Balance Analysis

	Water Fund Balances	Projected Balance June 30, 2024	Budgeted Revenues	Budgeted Expenses	Transfer In	Transfers Out	Use of Funds - Capital	Projected Balance June 30, 2025
1	**Operating Funds**							
2	Operating Water	$ 2,613,173	$ 20,802,731	$ (20,078,774)	$ 2,369,105	$ (3,440,000)	$ -	$ 2,266,235
3	**Reserves**							
4	Interest Reserve Water	10,175,743	490,375	-	-	-	-	10,666,118
5	**CIP**							
6	Capital R&R Water	4,170,668	-	-	3,440,000	(2,369,105)	(3,325,000)	1,916,563
7	CIP Loan Water	18,046,584	-	-	-	-	(9,813,890)	8,232,694
8	CC Expansion Water	3,963,310	45,200	-	-	-	(336,110)	3,672,400
9	Grant Funds Water	-	1,725,000	-	-	-	(1,725,000)	-
10	**Total Water Funds**	**$ 38,969,478**	**$ 23,063,306**	**$ (20,078,774)**	**$ 5,809,105**	**$ (5,809,105)**	**$ (15,200,000)**	**$ 26,754,010**

	Wastewater Fund Balances	Projected Balance June 30, 2024	Budgeted Revenues	Budgeted Expenses	Transfer In	Transfers Out	Use of Funds - Capital	Projected Balance June 30, 2025
1	**Operating Funds**							
2	Operating Wastewater	$ (900,012)	$ 9,562,100	$ (8,137,173)	$ 1,055,725	$ (2,000,000)	$ -	$ (419,360)
3	**Reserves**							
4	Interest Reserve Wastewater	1,713,524	181,371	-	-	-	-	1,894,895
5	**CIP**							
6	Capital R&R Wastewater	2,107,288	-	-	2,000,000	(1,055,725)	(1,953,038)	1,098,525
7	CIP Loan Wastewater	6,975,318	-	-	-	-	(4,500,000)	2,475,318
8	LC Expansion Wastewater	722,815	13,000	-	-	-	(270,000)	465,815
9	CC Expansion Wastewater	2,534,712	44,700	-	-	-	(467,619)	2,111,793
10	Grant Funds Wastewater	-	2,500,000	-	-	-	(2,500,000)	-
11	**Total Wastewater Funds**	**$ 13,153,645**	**$ 12,301,171**	**$ (8,137,173)**	**$ 3,055,725**	**$ (3,055,725)**	**$ (9,690,657)**	**$ 7,626,986**

	Hydro Fund Balances	Projected Balance June 30, 2024	Budgeted Revenues	Budgeted Expenses	Transfer In	Transfers Out	Use of Funds - Capital	Projected Balance June 30, 2025
1	**Operating Funds**							
2	Operating Hydro	$ -	$ 1,749,221	$ (1,241,733)	$ -	$ -	$ -	$ 507,488
3	**Total Hydro Funds**	**$ -**	**$ 1,749,221**	**$ (1,241,733)**	**$ -**	**$ -**	**$ -**	**$ 507,488**

Capital Improvement Program
Schedule of Cash Flow - Water Projects
FY 2024-25 thru FY 2026-2027

Project No	Water Projects Project Description	Project Budget	Expenses to Date	Projected Balance	Cash Flow			Funding FY 24-25			
					FY 24-25	FY 25-26	FY 26-27	Expansion Funds	Capital R & R	CIP Loan	Grants
	Copper Cove										
11083C	Copper Cove Tank B/Clearwell	8,600,000	1,022,991	7,577,009	4,000,000	-	-	186,110	-	3,813,890	-
11104	Lake Tulloch Intertie Project	7,500,000	28,362	7,471,638	750,000	-	-	150,000	600,000	-	-
11122	CC Zone B-C Trans Pipeline & Pump Station	10,000,000	288,886	9,711,114	100,000	4,500,000	4,500,000	-	100,000	-	-
11132	Copper Cove O'Byrnes Water Line Extension	60,000	23,958	36,042	-	-	-	-	-	-	-
11133	Copper Cove Ozone Unit Replacement	300,000	-	300,000	-	-	-	-	-	-	-
	Ebbetts Pass										
11083L	Larkspur Tank Replacement	687,567	586,984	100,583	-	-	-	-	-	-	-
11083S	Ebbetts Pass Sawmill Tank	3,160,000	10,751	3,149,249	350,000	2,800,000	-	-	350,000	-	-
11095	Ebbetts Pass Redwood Tanks HMGP	4,300,000	4,011,008	288,992	-	-	-	-	-	-	-
11099	Ebbetts Pass Meadowmont PS / Rehab.	100,000	-	100,000	-	-	100,000	-	-	-	-
11103	Hunters Raw Water Pumps (Hazard Mitigation)	2,400,000	181,030	2,218,970	2,300,000	-	-	-	575,000	-	1,725,000
11108	Big Trees Pump Stations 4 & 5 Replacement	2,100,000	5,916	2,094,084	-	450,000	1,650,000	-	-	-	-
11109	White Pines Tule Removal/Spillway	96,715	25,726	70,989	-	-	-	-	-	-	-
11115	Ebbetts Pass Larkspur PS Rehab / Electrical	1,500,000	-	1,500,000	-	250,000	1,250,000	-	-	-	-
	Jenny Lind / Wallace										
11083J	Jenny Lind Clearwell #2	850,000	21,358	828,642	500,000	-	-	-	500,000	-	-
11088	Jenny Lind A-B Transmission Main	13,500,000	787,241	12,712,759	6,000,000	5,136,110	-	-	-	6,000,000	-
11119	Jenny Lind Tanks A, B, E & F Rehabilitation	1,500,000	-	1,500,000	-	-	-	-	-	-	-
11131	Jenny Lind WTP - Rehab Filters 1 & 2	960,000	906,878	53,122	-	-	-	-	-	-	-
11083W	Wallace Tanks	1,500,000	7,020	1,500,000	-	-	-	-	-	-	-
	West Point / Wilseyville / Vallecito										
11106	West Point Backup Filter	2,380,000	2,804,860	(424,860)	-	-	-	-	-	-	-
11134	West Point Regulator Repair/Tule Removal	200,000	-	200,000	200,000	-	-	-	200,000	-	-
11107	West Point SCADA Improvements	-	-	-	-	-	-	-	-	-	-
	Other										
11083W	Tank Rehabilitation Program	6,000,000	-	6,000,000	1,000,000	1,250,000	1,750,000	-	1,000,000	-	-
	Total Water Projects	**$ 67,694,282**	**$ 10,712,969**	**$ 56,988,333**	**$ 15,200,000**	**$ 14,386,110**	**$ 9,250,000**	**$ 336,110**	**$ 3,325,000**	**$ 9,813,890**	**$ 1,725,000**

Capital Improvement Program
Schedule of Cash Flow - Wastewater Projects
FY 2024-25 thru FY 2026-27

Project No.	Wastewater Projects Project Description	Project Budget	Expenses to Date	Current Balance	Cash Flow			Funding FY 24-25			
					FY 24-25	FY 25-26	FY 26-27	Expansion Funds	Capital R & R	CIP Loan	Grants
	Arnold / Forest Meadows										
15095	Arnold Secondary Clarifier/WWTP Improvements	9,200,000	600,369	8,599,631	723,038	4,170,000	3,706,593	250,000	473,038	-	-
15106	FM UV Disinfection System Replacement	500,000	441,483	58,517	-	-	-	-	-	-	-
	Arnold Lift Station 2 & 3 Rehabilitation	3,500,000	-	3,500,000	-	-	750,000	-	-	-	-
	Copper Cove										
15076	CC Lift Station 6, 8 & Force Main Bypass	5,500,000	3,135,874	2,364,126	2,000,000	-	-	-	-	2,000,000	-
15080	CC Lift Station 15 & 18 Rehab/Replacement	3,600,000	2,370,599	1,229,401	1,000,000	-	-	-	-	1,000,000	-
15094	CC Tertiary, DAF, and UV Improvements	1,996,190	417,041	1,579,149	1,500,000	-	-	-	-	1,500,000	-
15112	CC Pond 6 Dam Raise	4,543,810	112,397	4,431,413	667,619	1,838,096	1,838,096	467,619	200,000	-	-
	CC Lower/Upper X-Country Gravity/Force Main	3,250,000	-	3,250,000	-	500,000	-	-	-	-	-
	La Contenta / Wallace										
15087	Wallace Treatment Plant Renovation	50,000	193,502	(143,502)	-	-	-	-	-	-	-
15097	LC Biolac, Clarifier, & UV Improvements	15,000,000	7,018	14,992,982	750,000	-	4,200,000	-	750,000	-	-
TBD	Huckleberry Lift Station Improvements	2,300,000	-	2,300,000	400,000	1,100,000	-	270,000	130,000	-	-
	West Point / Wilseyville / Vallecito										
15091	West Point/Wilseyville Consolidation Project	10,000,000	4,996,519	5,003,481	2,500,000	-	-	-	-	-	2,500,000
15111	Vallecito WWTP - System Improvements	150,000	118,907	31,093	-	-	-	-	-	-	-
	Other										
15109	Collections System Rehab and I&I Mitigation	900,000	211,343	688,657	150,000	150,000	150,000	-	150,000	-	-
	Total Wastewater Projects	**$ 60,490,000**	**$ 12,605,052**	**$ 47,884,948**	**$ 9,690,657**	**$ 7,758,096**	**$ 10,644,689**	**$ 987,619**	**$ 1,703,038**	**$ 4,500,000**	**$ 2,500,000**
	TOTAL WATER & WASTEWATER PROJECTS	**$ 128,184,282**	**$ 23,318,021**	**$ 104,873,281**	**$ 24,890,657**	**$ 22,144,206**	**$ 19,894,689**	**$ 1,323,729**	**$ 5,028,038**	**$ 14,313,890**	**$ 4,225,000**

Calaveras County Water District
Proposed FY 2024-25 Personnel Allocation

Department	Full Time Position	FY 2022-23	FY 2023-24	FY 2024-25
Administrative Services	**Accountant I/II ***	1	**2**	2
	Accounting Technician I/II	1	1	1
	Business Services Manager **	**1**	1	1
	Customer Service Representative I/II/III/SR	3	3	3
	Customer Service Supervisor	0	0	0
	Director of Administrative Services	1	1	1
	External Affairs Manager +	1	**0**	0
	Information System Administrator	1	1	1
	Information System Technician	1	1	1
	Succession IT Admin (2 Months)	0	0	0
59 – Administrative Services Total		**10**	**10**	**10**
Engineering/Technical Services	Construction Inspector I/II/III/SR	1	1	1
	Construction/ Inspection - Senior Supervisor	1	1	1
	District Engineer	1	1	1
	Engineer - Associate, Civil, Senior	3	3	3
	Engineering Coordinator	1	1	1
	Engineering Technician	1	1	1
58 – Engineering/Technical Services Total		**8**	**8**	**8**
General Management	Executive Assistant/Clerk to the Board	1	1	1
	External Affairs Manager +	0	**1**	1
	General Manager	1	1	1
	Human Resources Manager	1	1	1
	Human Resources Technician	1	1	1
General Management Total		**4**	**5**	**5**
Utility Services	Administrative Technician I/II/Sr	1	1	1
	Collection System Worker I/II/III/IV/Sr	5	5	5
	Construction and Maintenance Manager	1	1	1
	Construction Worker I/II/III/Sr	6	6	6
	Director of Operations	1	1	1
	Distribution Worker I/II/III/IV/Sr ++	9	9	**10**
	Electrical/Instrumentation Tech I/II/Sr	2	2	2
	Electrical/SCADA Senior Supervisor	1	1	1
	Facilities Maintenance Worker	1	1	1
	Mechanic I/II/Sr	3	3	3
	Operations, Senior Supervisor	4	4	4
	Plant Operations Manager	1	1	1
	Purchasing Agent	1	1	1
	SCADA Technician I/Sr	1	1	1
	Utility Worker I/II/Sr	4	4	4
	Water/Wastewater Plant Operator	10.25	10.25	10
Utility Services Total		**51.25**	**51.25**	**52**
Water Resources	Manager of Water Resources	1	1	1
	Water Resources Technician	1	1	1
Water Resources Total		**2**	**2**	**2**
Total Personnel Allocation		**75.25**	**76.25**	**77**

*** Addition of Accountant I/II per Res. No. 2023-64**
**** Addition of Business Services Manager per Res. No. 2023-27**
+ External Affairs Manager moved from Dept. 59 to 56 per Res. No. 2023-43
++ Addition of 1.0 Limited Term Position Distribution Worker

Calaveras County Water District
Proposed FY 2024-25 Personnel Allocation

Department	Full Time Position	FY 2022-23	FY 2023-24	FY 2024-25
Administrative Services	**Accountant I/II ***	1	**2**	2
	Accounting Technician I/II	1	1	1
	Business Services Manager **	**1**	1	1
	Customer Service Representative I/II/III/SR	3	3	3
	Customer Service Supervisor	0	0	0
	Director of Administrative Services	1	1	1
	External Affairs Manager +	1	**0**	0
	Information System Administrator	1	1	1
	Information System Technician	1	1	1
	Succession IT Admin (2 Months)	0	0	0
59 – Administrative Services Total		**10**	**10**	**10**
Engineering/Technical Services	Construction Inspector I/II/III/SR	1	1	1
	Construction/ Inspection - Senior Supervisor	1	1	1
	District Engineer	1	1	1
	Engineer - Associate, Civil, Senior	3	3	3
	Engineering Coordinator	1	1	1
	Engineering Technician	1	1	1
58 – Engineering/Technical Services Total		**8**	**8**	**8**
General Management	Executive Assistant/Clerk to the Board	1	1	1
	External Affairs Manager +	0	**1**	1
	General Manager	1	1	1
	Human Resources Manager	1	1	1
	Human Resources Technician	1	1	1
General Management Total		**4**	**5**	**5**
Utility Services	Administrative Technician I/II/Sr	1	1	1
	Collection System Worker I/II/III/IV/Sr	5	5	5
	Construction and Maintenance Manager	1	1	1
	Construction Worker I/II/III/Sr	6	6	6
	Director of Operations	1	1	1
	Distribution Worker I/II/III/IV/Sr ++	9	9	**10**
	Electrical/Instrumentation Tech I/II/Sr	2	2	2
	Electrical/SCADA Senior Supervisor	1	1	1
	Facilities Maintenance Worker	1	1	1
	Mechanic I/II/Sr	3	3	3
	Operations, Senior Supervisor	4	4	4
	Plant Operations Manager	1	1	1
	Purchasing Agent	1	1	1
	SCADA Technician I/Sr	1	1	1
	Utility Worker I/II/Sr	4	4	4
	Water/Wastewater Plant Operator	10.25	10.25	10
Utility Services Total		**51.25**	**51.25**	**52**
Water Resources	Manager of Water Resources	1	1	1
	Water Resources Technician	1	1	1
Water Resources Total		**2**	**2**	**2**
Total Personnel Allocation		**75.25**	**76.25**	**77**

*** Addition of Accountant I/II per Res. No. 2023-64**
**** Addition of Business Services Manager per Res. No. 2023-27**
+ External Affairs Manager moved from Dept. 59 to 56 per Res. No. 2023-43
++ Addition of 1.0 Limited Term Position Distribution Worker

RESOLUTION NO. 2024-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

ADOPTING THE FISCAL YEAR 2024-25 OPERATING AND CAPITAL IMPROVEMENT PROGRAM BUDGETS

WHEREAS, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT Has reviewed the projected revenues and expenditures for the 2024-25 fiscal year: and

WHEREAS, the Board of Directors has, as a result of the review, identified those programs and expenditures that will be most beneficial to the needs of the CALAVERAS COUNTY WATER DISTRICT.

NOW, THEREFORE BE IT RESOLVED, by the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT that the Fiscal Year 2024-25 Operating Budget in the amount of $34,897,680 is hereby approved and adopted.

BE IT FURTHER RESOLVED, by the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT that the Fiscal Year 2024-25 Capital Improvement Program (CIP) Budget in the amount of $24,890,657 is hereby approved and adopted.

PASSED AND ADOPTED this 12th day of June 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

RESOLUTION NO. 2024-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

ADOPTING THE FISCAL YEAR 2024-25 PERSONNEL ALLOCATION

WHEREAS, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT Has reviewed the projected revenues and expenditures for the 2024-25 fiscal year; and

WHEREAS, the Board of Directors has, as a result of the review, identified those programs and expenditures that will be most beneficial to the needs of the CALAVERAS COUNTY WATER DISTRICT; and

WHEREAS, the Board of Director approved and adopted the Fiscal Year 2024-25 Operating Budget on June 12, 2024.

NOW, THEREFORE BE IT RESOLVED, by the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT that the Fiscal Year 2024-25 Personnel Allocation, attached hereto and made a part hereof, is hereby approved and adopted.

PASSED AND ADOPTED this 12th day of June 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

200 - Legal Notices

NOTICE OF PUBLIC HEARING CONCERNING ADOPTION OF FISCAL YEAR 2024-25 OPERATING BUDGETS AND CAPITAL IMPROVEMENT PLAN BUDGETS FOR THE CALAVERAS COUNTY WATER DISTRICT

NOTICE is hereby given that at its Regular Meeting of June 12, 2024, at approximately 1:00 p.m., at its Board Room located at 120 Toma Court, San Andreas, California, the Board of Directors of the Calaveras County Water District will consider the adoption of its Operating and Capital Improvement Plan Budgets for Fiscal Year 2024-25. The proposed Fiscal Year 2024-25 Operating and Capital Improvement Plan Budgets can be viewed by visiting www.ccwd.org or copies may be obtained at the Calaveras County Water District office at 120 Toma Court, San Andreas. Interested parties are invited to make oral comments during public comment.

Published: **May 31, 2024 and June 7, 2024 VSN**

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Kevin Williams, Senior Civil Engineer

SUBJECT: Discussion/Action on issuing a Contract Amendment to PBI Engineers for Design and Engineering of the Lake Tulloch Intertie Project, CIP#11104

RECOMMENDED ACTION:

Motion:_____/_____ to adopt Resolution No. 2024-____ Accepting the Proposal and Authorizing the General Manager to Enter into a Contract Amendment with PBI Engineering for Design and Environmental studies of the Lake Tulloch Intertie Project CIP #11104.

SUMMARY:

Within the Copper Cove service area, B4 Zone (Lake Tulloch Estates, Connor Shores, Calypso Beach Villas developments, etc.) contains approximately 750 domestic water customers, located between Lake Tulloch and O'Byrne's Ferry Road. Currently water is provided from B Tank by a 10-inch diameter submerged distribution water main located at the bottom of Lake Tulloch. The District has identified the need for an intertie should the underwater distribution main fail.

The Lake Tulloch Intertie will be a 12-inch distribution main approximately 15,300 feet in length. The alignment would follow O'Bryne's Ferry Road, beginning near Copper Meadows Road and ending on Conner Estates Drive. The second intertie on Sanguinetti Drive will require an 8-inch main, approximately 1,400 feet in length. The current B4 zone would then be fed from C-Tank via Copper Cove Drive

This Lake Tulloch Intertie Project would be considered an emergency intertie until the Clearwell to C-Tank Transmission Main, currently in design, is completed. Once both projects are complete the submerged crossing will no longer be needed and can be removed from service or maintained as redundant emergency line. This Proposed Intertie could also provide water services where they are currently not available along O'Byrnes Ferry Road.

PBI Engineering Consulting provided a phased design for Copperopolis Water Systems, the initial design effort was to create pre-design report for this Proposed Intertie Project. Staff is satisfied with the Pre-Design report provided by PBI and would like to contract

with PBI to complete the Engineering and Design. We included copies of the Pre-Design Report and the Proposal for Design and Engineering services to complete the Design.

The recommendation to the Board is to award a contract amendment to PBI Engineers according to the submitted proposal and authorize the General Manager to enter into a Agreement in the amount of $366,058.

FINANCIAL CONSIDERATIONS:

The total project cost is estimated to be $7.3 million including the construction. The budget for the design and environmental phase of the project ($366,058) is included in the FY 2024-25 Water CIP Budget and is funded by the Copper Cove Water Expansion Fund (374) and the Water Capital R&R Fund (Fund 125).

STRATEGIC PLAN:

The 2021-2026+ CCWD Strategic Plan (Strategic Plan, adopted April 28, 2021 per Board of Directors' Resolution No. 2021-24, outlines several Goals and Objectives (Objectives)) meant to identify organizational opportunities and measure CCWD's results over time. Consistent with the Strategic Plan, this Agenda Item supports the following objectives:

FR-01 Develop and commit to a long-term financial strategy and framework to fund the projects identified in the Capital Improvement Plan (CIP) and other longterm District obligations and needs.

Oi-01 Ensure out infrastructure is operated and maintained to fully realize its expected life span.

OI-02 Implement preventive, predictive, and corrective maintenance plans to ensure safe and reliable operations.

a. Continue to modernize wastewater treatment and recycled water delivery systems to increase the use of recycled water, which decreases the demand for raw water.

b. Develop a short, mid- and long-term approach to project implementation that aligns with value added, optimizes the budget, and is paced for successful outcomes.

Attachments:

1) *Resolution No. 2024-__-Approving Contract Amendment for PBI Engineers for Design and Engineering of the Lake Tulloch Intertie Project, CIP#11104*
2) *Pre-Design Report. (Phase 3 Lake Tulloch Intertie)*

RESOLUTION NO. 2024-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

APPROVING AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT FOR ENGINEERING SERVICES FOR THE COPPER COVE WATER SYSTEM LAKE TULLOCK INTERTIE PROJECT CCWD CIP #11104

WHEREAS, through a competitive proposal process, Peterson Brustad, Inc. (PBI) was previously selected by Calaveras County Water District to complete the Pre-Design Report for the Lake Tulloch Intertie Project as part of larger design effort for Copper Cove Water System Improvements; and

WHEREAS, it is common practice for Consultants selected for Pre-Design to be retained to complete the Final Project Design and Environmental Studies; and

WHEREAS, PBI prepared a scope of work and fee estimate of $366,058 to provide Design, Engineering and Environmental services for the Lake Tulloch Intertie Project. As presented in the attached budget amendment.

BE IT RESOLVED, the CALAVERAS COUNTY WATER DISTRICT Board of Directors hereby approves an amendment to the Professional Services Agreement with PBI adding Design, Engineering and Environmental Services for, CIP #11104 and authorizes the General Manager to execute said amendment and contract adjustments not to exceed $366,058 as proposed in the attached budget amendment request.

PASSED AND ADOPTED this 12th day of June, 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

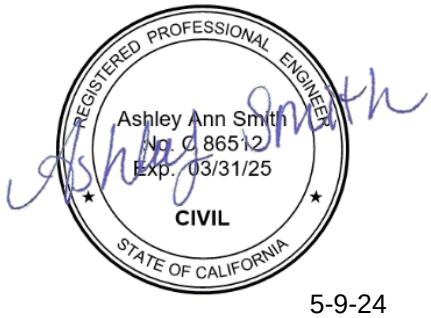
Technical Memorandum

Copper Cove Water System Improvements Project

Phase 3 Lake Tulloch Intertie

Calaveras County Water District

May 6, 2024



Prepared by: Natali van Leeuwen, E.I.T., Greg Garrison, E.I.T.

Reviewed by: Ashley Smith, P.E., Karl Brustad, P.E. 5-9-24

Introduction

Background

The Calaveras County Water District (District) has retained Peterson Brustad Inc. (PBI) to provide design services for eight different capital improvements within the Copper Cove water system (Copper Cove). The Lake Tulloch intertie was identified in the 2018 Copper Cove Water System Master Plan (2018 Master Plan) as the B4 Zone backup main project. The 2018 Master Plan prepared by PBI identified several projects and repair programs in response to the current conditions of the Copper Cove water system. The projects have been broken into three phases:

- Phase 1
  - Replace the redwood tank at the B Tank Site
  - New Copper Cove Water Treatment Plant (WTP) clearwell
- Phase 2
  - Rehabilitate or replace welded steel tank at B Tank Site
  - Rehabilitate or replace existing clearwell at WTP.
  - Replace B-C Zone Booster Pump Station (BPS)
- Phase 3
  - C Tank BPS and transmission main
  - Lake Tulloch intertie
  - C Tank overflow improvements

Multiple preliminary design reports (PDRs) were developed to analyze these projects based on priority and opportunity for redundancy. The five PDRs are as follows:

- Phase 1 Tank Improvements
- Phase 2 Tank Improvements
- Phase 2/Phase 3 BPS Improvements
- Phase 3 Lake Tulloch Intertie
- Phase 3 C Tank Overflow Improvements

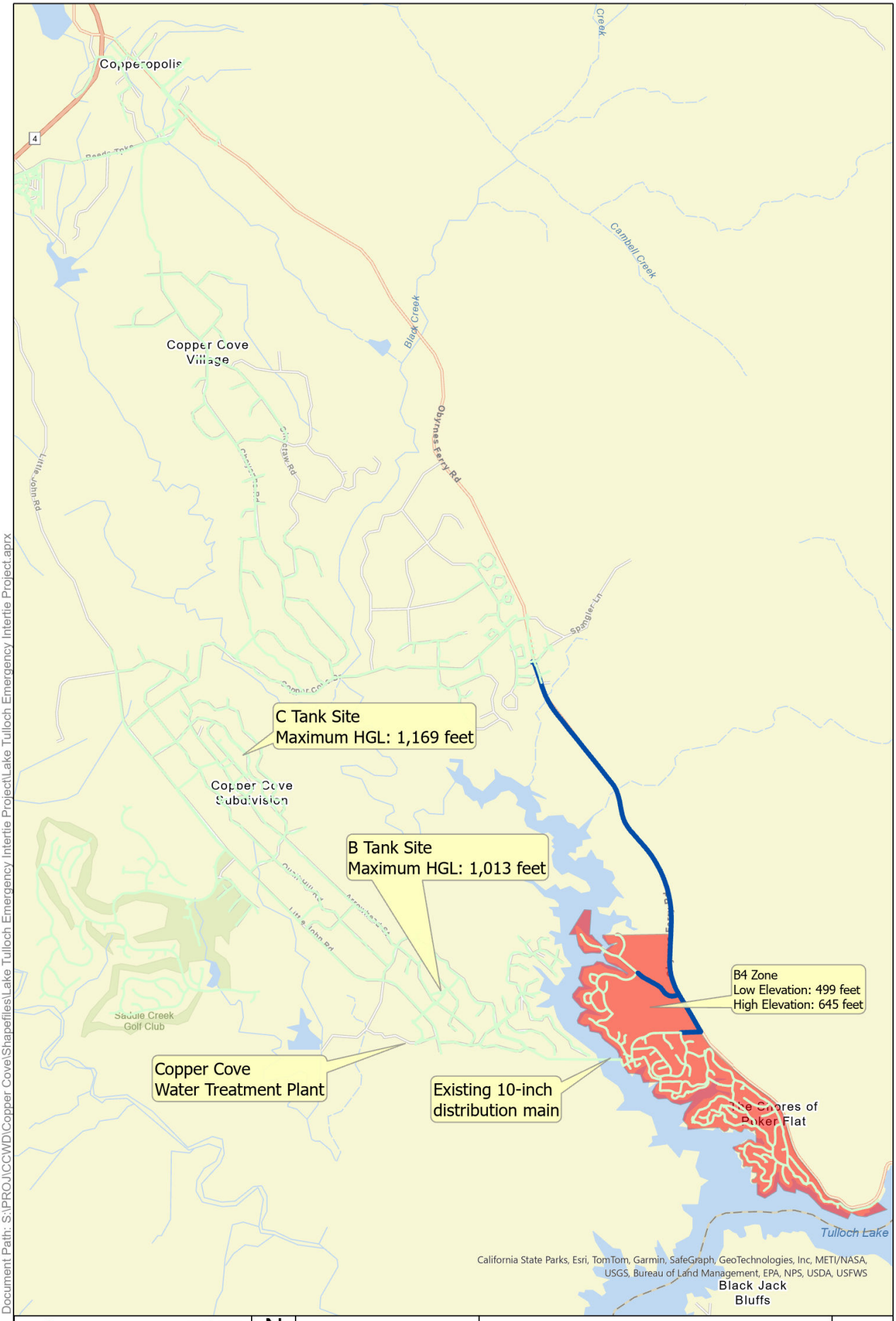
The B4 Zone of the Copper Cove water system is located on the east side of Lake Tulloch and is currently supplied by the B Zone Tanks via a single 10-inch transmission main. The Lake Tulloch intertie project includes the construction of a new transmission main to serve as the primary supply from the C Tanks to the B4 Zone.

Purpose

The purpose of this Technical Memorandum (TM) is to recommend the PRV station location, pipe size and material, and an alignment location for the new transmission main. Additionally, this TM also presents the design criteria and construction requirements which will need to be considered during the design of the project.

Problem Statement

Approximately 750 domestic water customers on the east side of Lake Tulloch are provided service via a single 10-inch distribution main that crosses underneath the bottom of Lake Tulloch. In the event this distribution main were to fail, the entire community on the east side of Lake Tulloch would be left without a water supply. The Lake Tulloch Intertie will serve as the primary water supply to these customers, replacing the current distribution main and minimizing the risk of catastrophic failure. Figure 1 depicts the B4 Zone and the existing 10-inch distribution main that passes under Lake Tulloch.



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May 2024

CALAVERAS COUNTY WATER DISTRICT

Existing B4 Zone 10" Distribution Main Supply

FIGURE 1

Design Considerations

Design Criteria

The design criteria for the capacity of the proposed transmission main is to supply the B4 Zone for either peak hour demand (PHD) or the maximum day demand (MDD) plus fire flow (FF), whichever is greater. The California Fire Code (CFC), Title 24, Part 9, Appendix B: Fire Flow Requirements for Buildings lists the required gpm of fire flow for one- and two-family dwellings, and townhouses to be 1,000-gpm. The CFC, Title 24, Part 9, Appendix BB: Fire Flow Requirements for Buildings lists the required gpm of fire flow for schools and commercial buildings to be 1,500-gpm. The maximum FF demand is based on the California's standard for commercial land use. Table 1 outlines these demand capacities.

Table 1. Demand Capacities

Demand	Capacity (gallons per minute, GPM)
PHD	455 gpm
MDD	297 gpm
Residential FF	1,000 gpm
Commercial FF	1,500 gpm

The combined MDD and FF demand for the B4 Zone is approximately 1,800 gpm, which is greater than the 455 gpm for PHD. Therefore, the transmission main will be sized based on the combined MDD and FF demand.

District Standards

The District's Design and Construction Standards, October 2021 Revision (2021 Standards) have been reviewed and considered for the design of the new pipeline. The 2021 Standards are discussed briefly below and will be incorporated into the final design documents. The referenced 2021 Standards can be found in Appendix A.

- Location – Pipeline shall be located in the paved road right-of-way; pipeline centerline shall be parallel to and offset a minimum of 5 feet from the edge of pavement, or a minimum of 3 feet from lip of gutter.
- Minimum Pressure – 40 pounds per square inch (psi) during MDD
- Velocity – Minimum, 2.0 feet per second (fps); Maximum under PHD, 5.0 fps
- Fire Flow – Maximum velocity of 12 fps
- Hazen-Williams coefficient – 130 is to be used for new pipelines
- Minimum Pipe Size – 6-inch diameter
- Pipe Material – 12-inch and smaller diameter shall either be:
    - AWWA C900 Polyvinyl Chloride (PVC) Pipe Pressure Class 235 (DR 18) or Class 305 (DR 14) or
    - AWWA C150/C151 ductile iron pipe (DIP) Pipe Pressure Class 350
- Pipe Material – larger than 12-inches shall be determined by the District Engineer.

- Allowable Deflection – PVC pipe has allowable deflection (combined vertical and horizontal angles) of 5 degrees per coupling using mechanical or push-on joints; DIP allowable deflection at joints is 80 percent of the manufacturer's recommendation for push-on mechanical joints.
- Minimum Depth of Cover – 36-inches in paved and unpaved areas
- Crossing – A minimum vertical clearance of 1-foot is required for pipe crossings and culverts.
- Air Valves – 1-inch or 2-inch air vacuum valve (AVV) will be installed at all significant high points along the pipeline.
- Blowoff Valves – 6-inch blowoff valves shall be installed at all low points on dedicated transmission main.
- Pressure Reducing Stations – Pressure reducing stations shall be equipped with pressure reducing valves (PRV) sized for low and maximum flows; PRV station must be located outside the traveled way of street or roadways.
- Inline Valves – Inline valves shall be installed every 2,000 feet.
- Trench Width – Minimum trench width, outer diameter (OD) + 12 inches; Maximum trench width, OD + 18 inches

County Standards

The County of Calaveras Department of Public Works (County) General Permit Conditions and Specifications for Trench Cuts and Street Resurfacing, September 2019 Revision (2019 Specifications) have been reviewed and incorporated into the trenching and pavement repairs associated with the new transmission main. For trenches 300 feet or longer, pavement restoration is required in accordance with Table 8.1 from the 2019 Specifications as shown in Figure 2.

Table 8. 1 – Pavement Restoration Options

Street Category	Options
A	**Option 1 -** Trenching prohibited. Directional boring or jacking may be permitted. **Option 2 -** Grind and replace length of trench with 2" overlay over half road width. **Option 3 -** 1 ½" overlay over entire road surface for length of trench with shoulder backing as appropriate. **Option 4 - (Qualified Projects) -** CIP Project, eligible for in-lieu cash contribution.
B	**Option 1 -** Grind and replace length of trench with 2" overlay over half road width. **Option 2 -** Type II or Type III Microsurface across entire road width for length of trench. **Option 3 -** Other approved resurfacing method to conform to current road conditions. **Option 4 -** Directional boring or jacking may be permitted. **Option 5 - (Qualified Projects) -** CIP Project, eligible for in-lieu cash contribution.
C	**Option 1 -** Trench pavement repair (per Section 8.2) and crack seal trench. No additional pavement restoration required.

STREET CATEGORIES
A-Street newly constructed or repaved within 3 years of trench cut application date or PCI of 80 or greater.
B-Street in good or fair condition that have not been newly constructed or repaved within 3 years and PCI of less than 80 or greater than 45.
C-Street in poor condition, PCI 45 or less.

Figure 2. Table 8.1 from the 2019 Specifications

The County was contacted to determine which street category defines O'Byrnes Ferry Road. The County confirmed O'Byrnes Ferry Road was repaved in August of 2022 which increased the paving conditions index (PCI) to approximately 95. This places the roadway in street category A. The repaving requirements

for trenching in the roadway of O'Byrnes Ferry Road will fall under option 2 of street category A and states the entire width of the lane that the pipeline is constructed to be overlayed.

The County also requires that trench edges less than 3 feet from the edge of the pavement include the strip of pavement between the trench and edge of pavement in the replacement paving.

Traffic Control

O'Byrnes Ferry Road is a heavily trafficked roadway that will require traffic control during construction of the proposed transmission main. Traffic control will be in accordance with the County Code and the most recent revision of California Manual on Uniform Traffic Control Devices (MUTCD).

Due to the heavy traffic experienced in this area and the limitations this puts on construction, it is assumed approximately 250 linear feet (LF) of pipe can be installed per day. The proposed alignment is approximately 15,320 feet, resulting in approximately 65 days of traffic control. The alignment will have an additional 2,100 LF for tie-in connections, resulting in approximately 70 days of traffic control total.

Trench Dams

It is recommended trench dams be installed with interval spacing as identified in Table 2.

Table 2. Trench Dams Maximum Spacing

Trench Slope (Percent)	Spacing (Feet)
< 5	1,000
5 – 15	500
15 – 25	300
25 – 35	200
35 – 100	100
< 100	50

Right of Way

O'Byrnes Ferry Road has been identified as the location for the proposed alignment as it is the only road on the east side of Lake Tulloch that connects the C Zone to the B4 Zone.

The proposed alignment will be within the public right-of-way on O'Byrnes Ferry Road, beginning at Copper Meadows Drive and ending at Connor Estates Drive. This will require an encroachment permit from Calaveras County before construction.

Utility Conflicts

A preliminary review of the utilities along the proposed alignment identified minimal utility conflicts. There are several utilities that provide service in the project area including Amerigas Propane of Jamestown, Calaveras County Road Department, Calaveras County Water District, Calaveras Telephone Company, Comcast of Northern California, Kamps Propane No. 9, and PG&E Distribution of Modesto. These utilities have been contacted and any conflicts will be taken into consideration during design. The proposed transmission main will be constructed in accordance with Section 64572, Article 4, Chapter 16,

Division 4, Title 22 of the California Code of Regulations (CCR) to ensure water main separation requirements with other underground utility pipelines are satisfied.

Calaveras County Road Department has several culverts along O'Byrnes Ferry Road. The general locations and dimensions of the culverts have been identified. Per CCWD requirements, a minimum of 1-foot of vertical clearance shall be maintained when the proposed alignment crosses these culverts.

The District has a pressurized sewer main with connections on the west side of O'Byrnes Ferry Road, beginning at Copper Meadows Drive and ending at Conner Estates Drive. The sewer main is located on the north side of Conner Estates Drive.

Calaveras Telephone Company has identified that they have underground telecommunication cables and crossings on the west side of O'Byrnes Ferry Road.

Comcast of Northern California does not have utilities along O'Byrnes Ferry Road.

Kamps Propane No. 9 does not have gas pipelines in the roadway on O'Byrnes Ferry Road. However, there are propane tanks on the north end of O'Byrnes Ferry Road with a small section of piping connecting the tanks to the nearby housing sub-division near Copper Meadows Drive.

PG&E has overhead utilities along O'Byrnes Ferry Road, with underground electrical services near the beginning and end of the proposed transmission main at Copper Meadows Drive and Connor Estates Drive, respectively.

Alternatives Analysis

Several factors were considered in determining the recommended intertie project including ability to meet fire flow requirements, PRV station location, and pipeline material type.

Existing Fire Flow Availability

The hydraulic model was used to show the current fire flow availability in Zone B4 when fed from the existing Lake Tulloch pipeline. All nodes within 300 feet of medium residential, commercial, or community center parcels were assigned a 1,500-gpm FF. All other nodes were assigned 1,000-gpm. Figure 3 on the following page, shows the existing system's fire flow capabilities with the existing 10" distribution line under Lake Tulloch. The Figure's legend for color coded nodes is as follows:

- Green nodes are Fire Flows greater than or equal to (≥) 1,500 gpm.
- Yellow nodes are Fire Flows greater than or equal to (≥) 1,000 gpm and less than (<) 1,500 gpm.
- Red nodes are all Fire Flows less than (<) 1,000 gpm.

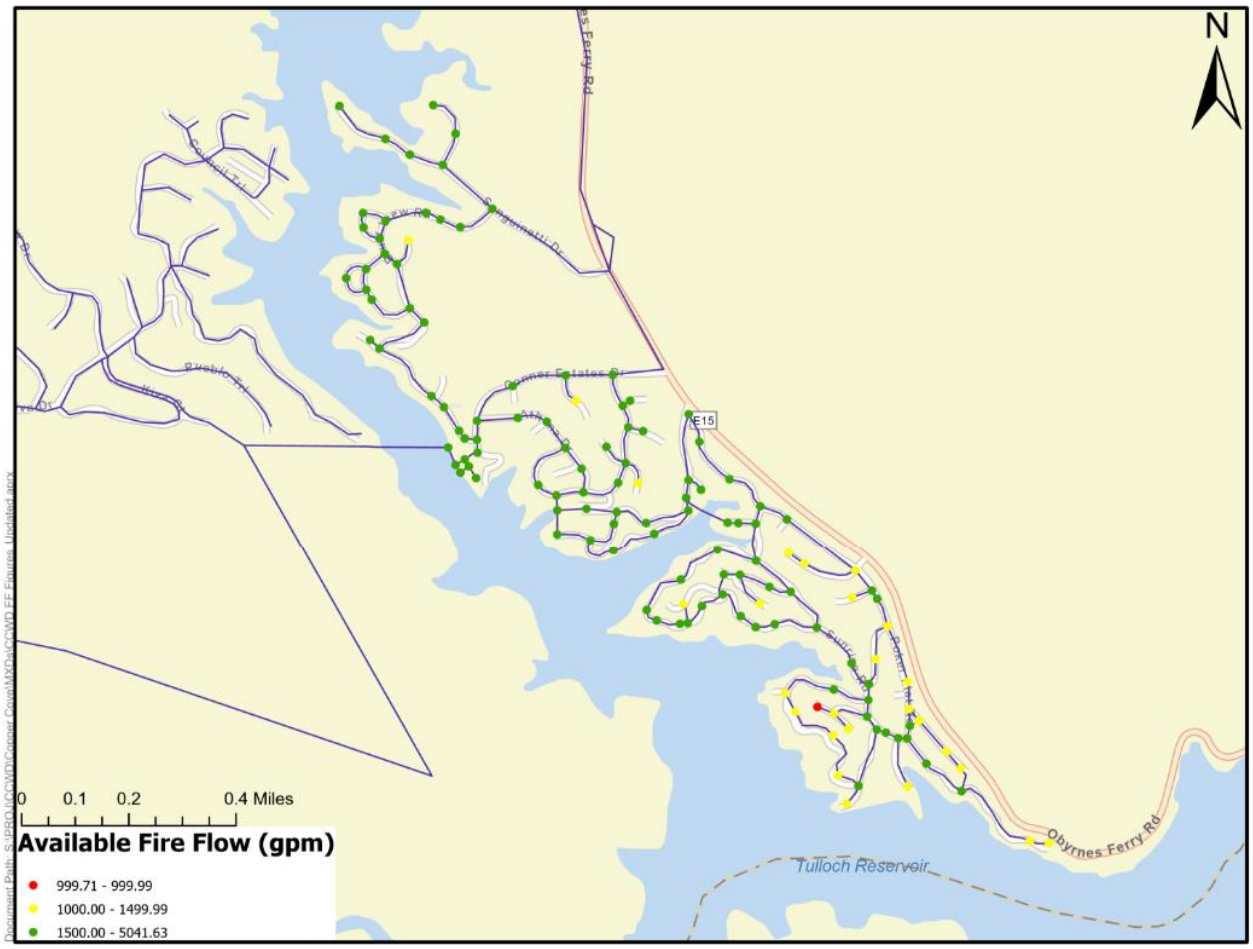


Figure 3. Fire Flow in Existing System

Pressure Reducing Valve Station

The proposed transmission main must include a PRV station to drop the pressure from the C Zone to the appropriate hydraulic grade line to supply the B4 Zone. The District's minimum operating pressure is 40 psi and the B4 Zone has an elevation range of 499 feet to 645 feet, resulting in a minimum hydraulic grade line (HGL) of 737 feet for the B4 Zone. The existing 10-inch main crossing under Lake Tulloch has a PRV station set at 75 psi with a HGL of 740 feet. The new PRV station setting will need to be above the existing PRV station setting to ensure the C Zone is the primary supply for the B4 Zone and the existing 10-inch main will only operate in an emergency condition. Therefore, it is recommended the new PRV station be set at the HGL of 740 feet and the setting at the existing PRV station at Lake Tulloch be modified to 735 feet.

The PRV may be positioned at any point along O'Byrnes Ferry Road and will work efficiently at the desired HGL setting. Two alternative locations were analyzed to place the PRV station on the proposed transmission main.

PRV Station North Location

The North PRV Station, which is located in the right-of-way near the Copperopolis Transfer Station, is shown in Figure 4, just past Cosmic Court. The elevation at the proposed location is 685 feet; therefore, the PRV setting would need to be 23.81 psi to maintain the B4 Zone HGL of 740 feet.

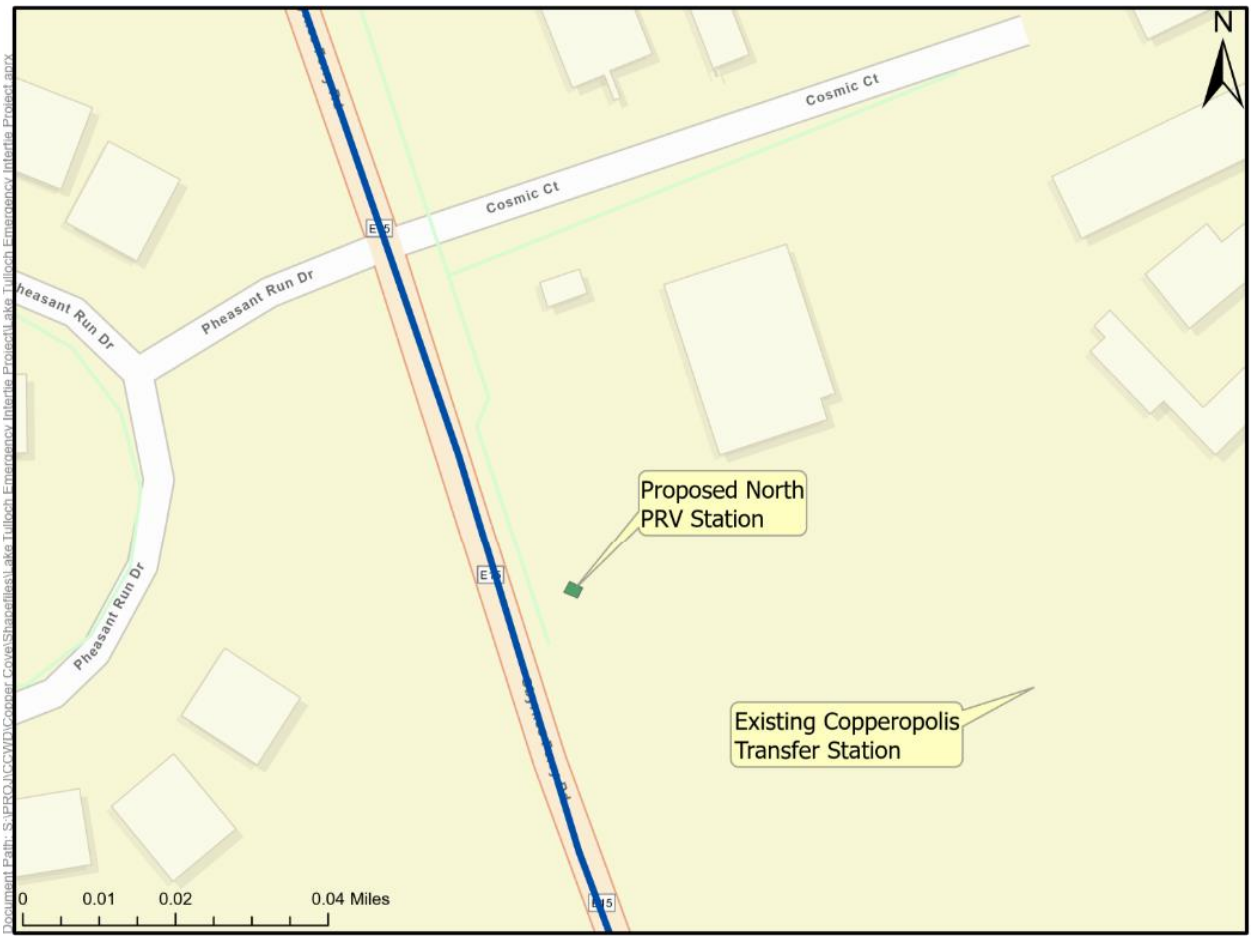


Figure 4. Proposed location for Alternative 1 PRV Station

PRV Station South Location

The South PRV Station is located near the B4 Zone at the intersection of Sanguinetti Drive and O'Byrnes Ferry Road, as shown in Figure 5. The elevation at the proposed location is 580 feet; therefore, the PRV setting would need to be set to 69.26 psi to ensure the B4 Zone HGL of 740 feet.

Figure 5. Proposed location for Alternative 2 PRV Station

Once the two proposed location's HGL's were determined, the hydraulic model was used with various transmission main sizes to decipher the minimum pipe size capable to provide FF for the B4 zone. The Four alternatives modeled were:

- Alternative 1A: a 16" Transmission Main with the PRV Station located at the North Location.
- Alternative 1B: a 12" Transmission Main with the PRV Station located at the North Location.
- Alternative 2A: a 12" Transmission Main with the PRV Station located at the South Location.
- Alternative 2B: a 10" Transmission Main with the PRV Station located at the South Location.

Alternative 1A – 16" Transmission Main

Alternative 1A is a 16" Transmission Main that ties into existing C Zone 12" PVC water main beginning at Copper Meadows Drive. The 16" transmission main follows along the path of the O'Byrnes Ferry Road's East Lane. The PRV station will be at the North location in the right-of-way near the Copperopolis Transfer Station. The transmission main will tie in with the existing 8-inch AC water main at Sanguinetti Drive and

the 10” AC water main at the intersection of Conner Estates Drive and Calypso Beach Drive. Figure 6 illustrates the available FF in the B4 zone from the 16” Transmission Main.

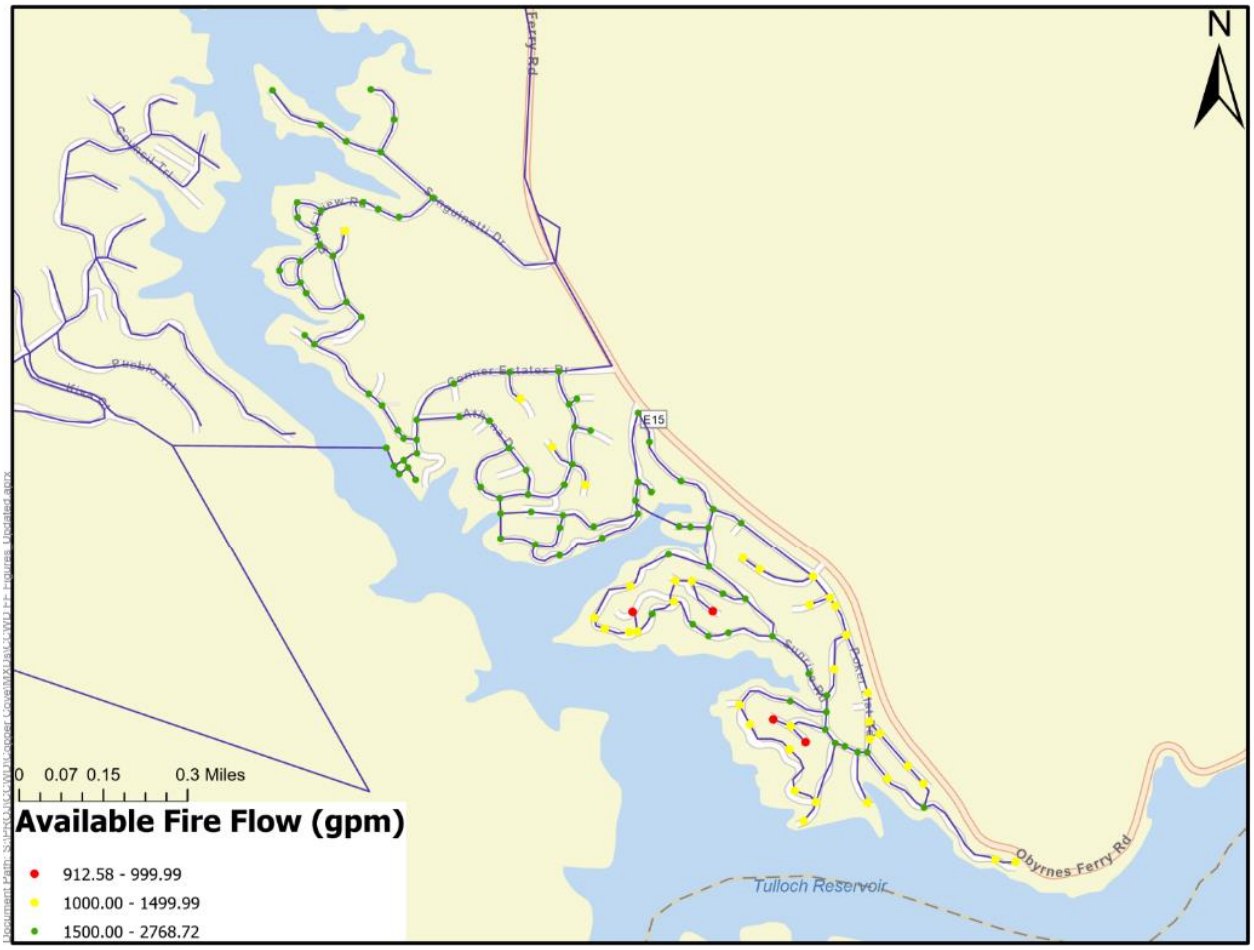


Figure 6. Alternative 1A - 16" Transmission Main

As shown in the figure, many of the Residential and Commercial nodes meet District’s FF requirements making Alternative 1A feasible except for four nodes which are located at dead ends. The estimated cost to Alternative 1A is $8.4 Million. A detailed cost estimate is provided in Appendix C. The hydraulic model results for Alternative 1A are provided in Appendix B.

Alternative 1B – 12” Transmission Main

Alternative 1B is a 12” Transmission Main that ties into existing C Zone 12” PVC water main beginning at Copper Meadows Drive. The 12” transmission main follows along the path of the O’Byrnes Ferry Road’s East Lane. The PRV station will be at the North location in the right-of-way near the Copperopolis Transfer Station. The transmission main will tie in with the existing 8-inch AC water main at Sanguinetti Drive and the 10” AC water main at the intersection of Conner Estates Drive and Calypso Beach Drive. Figure 7 illustrates the available FF in the B4 zone from the 12” Transmission Main.

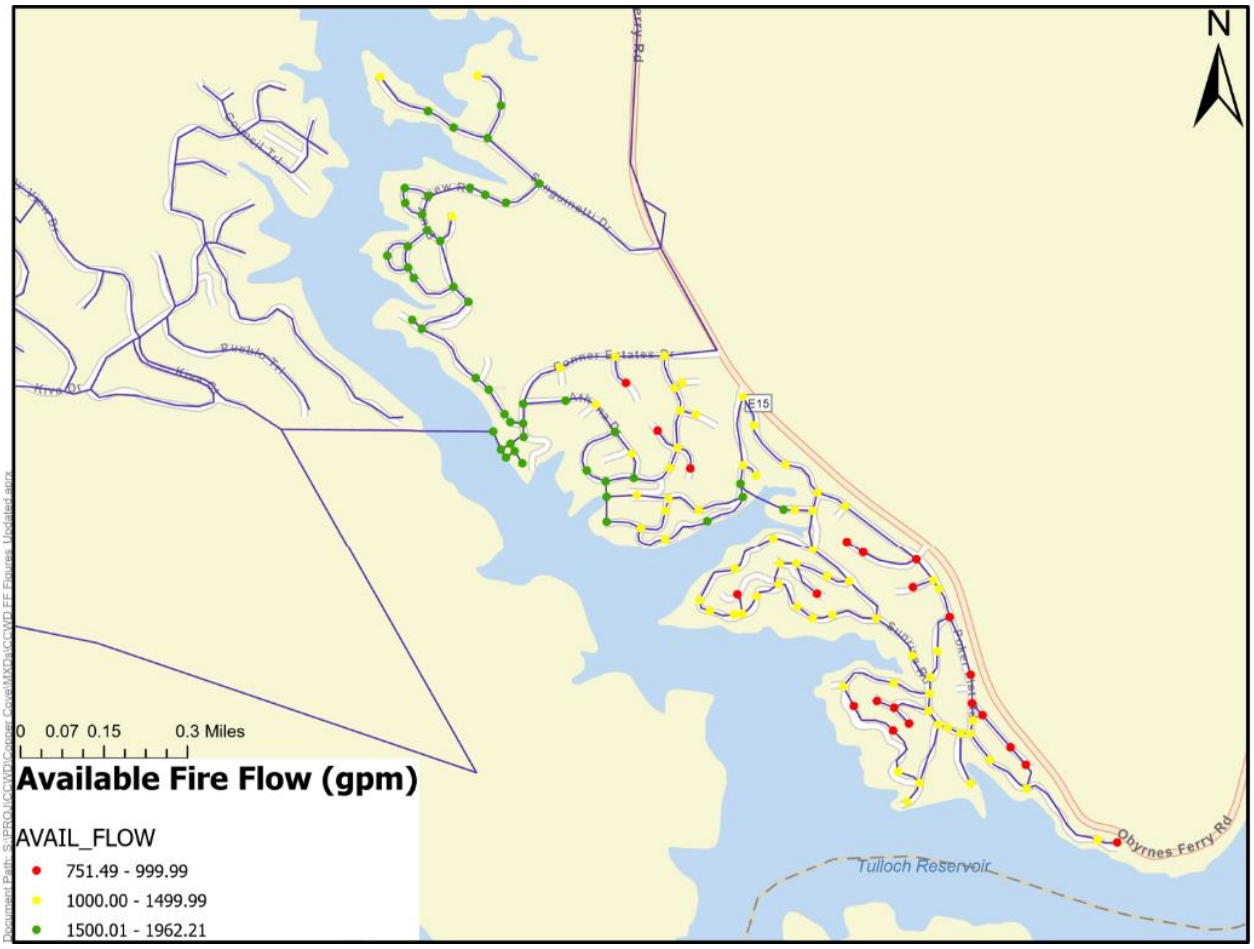


Figure 7. Alternative 1B - 12" Transmission Main

As shown in the figure, many of the Residential and Commercial nodes do not meet District's FF requirements making Alternative 1B not feasible. Therefore, a cost estimate was not developed for Alternative 1B. The hydraulic model results for Alternative 1B are provided in Appendix B.

Alternative 2A - 12" Transmission Main

Alternative 2A is a 12" Transmission Main that ties into existing C Zone 12" PVC water main beginning at Copper Meadows Drive. The 12" transmission main follows along the path of the O'Byrnes Ferry Road's East Lane. The PRV station will be at the South location in the right-of-way near the intersection of Sanguinetti Drive and O'Byrnes Ferry Road. The transmission main will tie in with the existing 8-inch AC water main at Sanguinetti Drive and the 10" AC water main at the intersection of Conner Estates Drive and Calypso Beach Drive. Figure 8 illustrates the available FF in the B4 zone from the 12" Transmission Main.

Figure 8. Alternative 2A - 12" Transmission Main

As shown in the figure, many of the Residential and Commercial nodes meet District's FF requirements with the exception of two nodes located at dead end mains. The estimated cost to Alternative 2A is $7.3 Million. A detailed cost estimate is provided in Appendix C. The hydraulic model results for Alternative 2A are provided in Appendix B.

Alternative 2B - 10" Transmission Main

Alternative 2B is a 10" Transmission Main that ties into existing C Zone 12" PVC water main beginning at Copper Meadows Drive. The 10" transmission main follows along the path of the O'Byrnes Ferry Road's East Lane. The PRV station will be at the South location in the right-of-way near the intersection of Sanguinetti Drive and O'Byrnes Ferry Road. The transmission main will tie in with the existing 8-inch AC water main at Sanguinetti Drive and the 10" AC water main at the intersection of Conner Estates Drive and Calypso Beach Drive. Figure 9 illustrates the available FF in the B4 zone from the 10" Transmission Main.

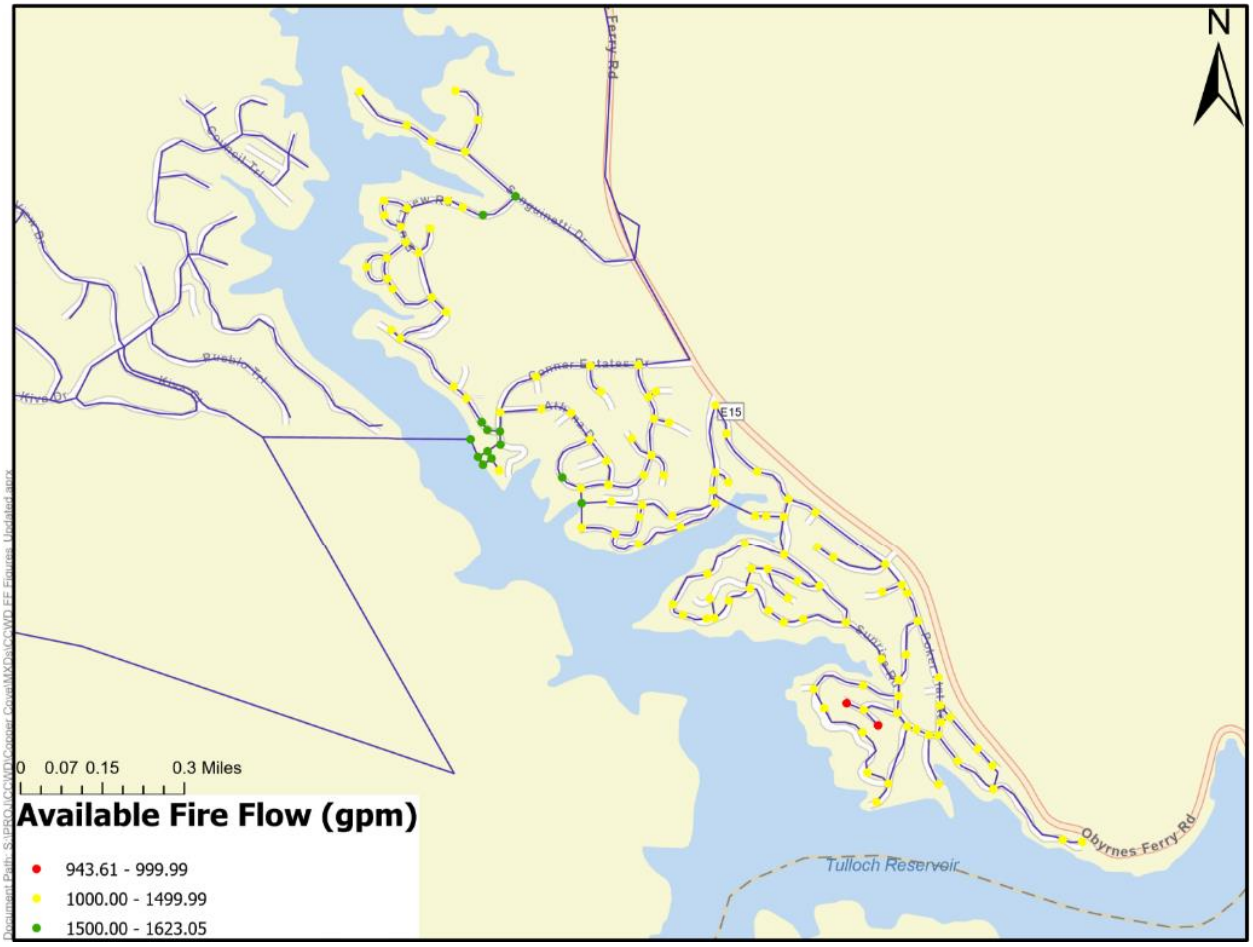


Figure 9. Alternative 2B - 10" Transmission Main

As shown in the figure, many of the nodes do not meet District's FF requirements making Alternative 2B not feasible. Therefore, a cost estimate was not prepared for this alternative. The hydraulic model results for Alternative 2B are provided in Appendix B.

Comparison of Alternatives

When it comes to the location of the PRV, it is generally better to install it at a lower elevation than at a higher elevation. If a PRV was installed at a higher elevation at the desired HGL, the pressure of the fluid would decrease due to head loss during peak flows through the entire length of the transmission main. This alternative will require a larger diameter transmission main to meet desired fire flows.

Installing the PRV at a lower elevation at the desired HGL can accommodate additional head loss in the transmission main allowing for a smaller diameter pipeline to achieve the desired fire flows.

Table 3 provides a comparison of the various advantages and disadvantages for Alternatives 1A and 2A.

Table 3. Summary of Advantages and Disadvantages of Feasible Alternatives

	Alternative 1A – 16" Transmission Main	Alternative 2A – 12" Transmission Main
Advantages	• Meets CCWD's Design Criteria for Fire Flow • Pressures do not exceed District Standards	• Meets CCWD's Design Criteria for Fire Flow • Lower construction cost • Smaller valves and fittings
Disadvantages	• Higher construction cost • Larger valves and fittings • Four Nodes didn't meet minimum 1,000 gpm FF.	• Pressure exceeded District standards of 120 psi. • Two Nodes didn't meet minimum 1,000 gpm FF.

The PRV station will be equipped with two valves, one valve will operate under normal daily flows and the other valve will operate under MDD and FF demands. The PRV station will be designed based on the District's 2021 Standard Drawing W13; a below-grade concrete vault with an approximate footprint of 7 feet by 9 feet with H20 Traffic Rated Access Hatch covers.

It is recommended to locate the PRV station near the intersection of O'Byrnes Ferry Road and Sanguinetti Drive outside the traffic way. Alternative 2A is recommended due to its ability to meet the desired fire flows at a lower construction cost. Future connections off of the transmission main will require PRV stations to maintain desired pressures.

Pipe Material

As identified in the District Standards, the pipe material for pipelines 12 inches and smaller shall be either PVC or DIP. Table 4 provides a comparison of the various advantages and disadvantages for each pipe material.

Table 4. Summary of Advantages and Disadvantages of Pipe Materials

	PVC	DIP
Advantages	• Cost-effective option; approximately $250 per LF for installation	• Accommodates greater deflections – typically 5 degrees. • Higher Pressure Rating of 350 psi
Disadvantages	• Manufacturer typically allows for 1 degree of deflection. • 12" ID is 11.314" for DR 14 and 11.65" for DR 18. • Lower Pressure Rating of 235 and 305 psi	• Higher construction cost; approximately $500 per LF for installation

Constructing the transmission main using PVC is the cost-effective option and will result in reduced construction costs. District standards allow for a maximum of 5 degrees of deflection (combined vertical and horizontal angles) per coupling using mechanical or push-on joints. Manufacturer guidelines for PVC typically allow 1 degree of deflection without joints. Using DIP increases construction costs but allows for

more deflection. The District allows up to 80 percent of the manufacturer's recommendation for maximum allowable angular deflection.

The minimum radius of curvature for 20-foot lengths of PVC pipe is approximately 1,145 feet while DIP has a minimum radius of curvature of 275 feet for 18-foot lengths of pipe. The proposed alignment was assessed to determine if the minimum radius of curvature can be achieved for both pipe materials. The minimum radius of curvature from O'Byrnes Ferry Road was determined to be approximately 1,812 feet, which exceeds the requirements for both pipe materials. Therefore, it is not anticipated additional fittings will be necessary if PVC pipe is selected.

It is recommended the 12-inch transmission main be constructed using PVC with typical manufacturer's standards allowing for 1 degree of deflection. The cost difference between the two pipe materials makes PVC the cost-effective option.

The pressure rating class for the 12-inch pvc pipe for the District is 235 psi (DR 18) and 305 psi (DR 14). This means that the pipe can handle a maximum pressure of 235 psi or 305 psi, depending on the pressure rating class selected.

The modeled system, 2A, has a maximum pressure of 210 psi from the C Zone to the B4 Zone. Test pressure for the system is 1.5 times the operating pressure, or 315 psi. PBI recommends selecting the 12-inch PVC with a pressure class of DR 14, but with a modified test pressure that does not exceed 305 psi.

The estimated cost to install the 12-inch PVC DR 14 transmission main is approximately $7.3 million. A detailed cost estimate is provided in Appendix C.

Alignment Analysis

The proposed alignment for the approximately 15,320-foot transmission main is in the public right-of-way along O'Byrnes Ferry Road, beginning at Copper Meadows Drive and ending at Connor Estates Drive. No alternative alignment has been identified as O'Byrnes Ferry Road is the only road on the east side of Lake Tulloch that connects the B4 Zone and C Zone. Locating the transmission main in the public right-of-way eliminates the need for easements and future coordination with private property owners.

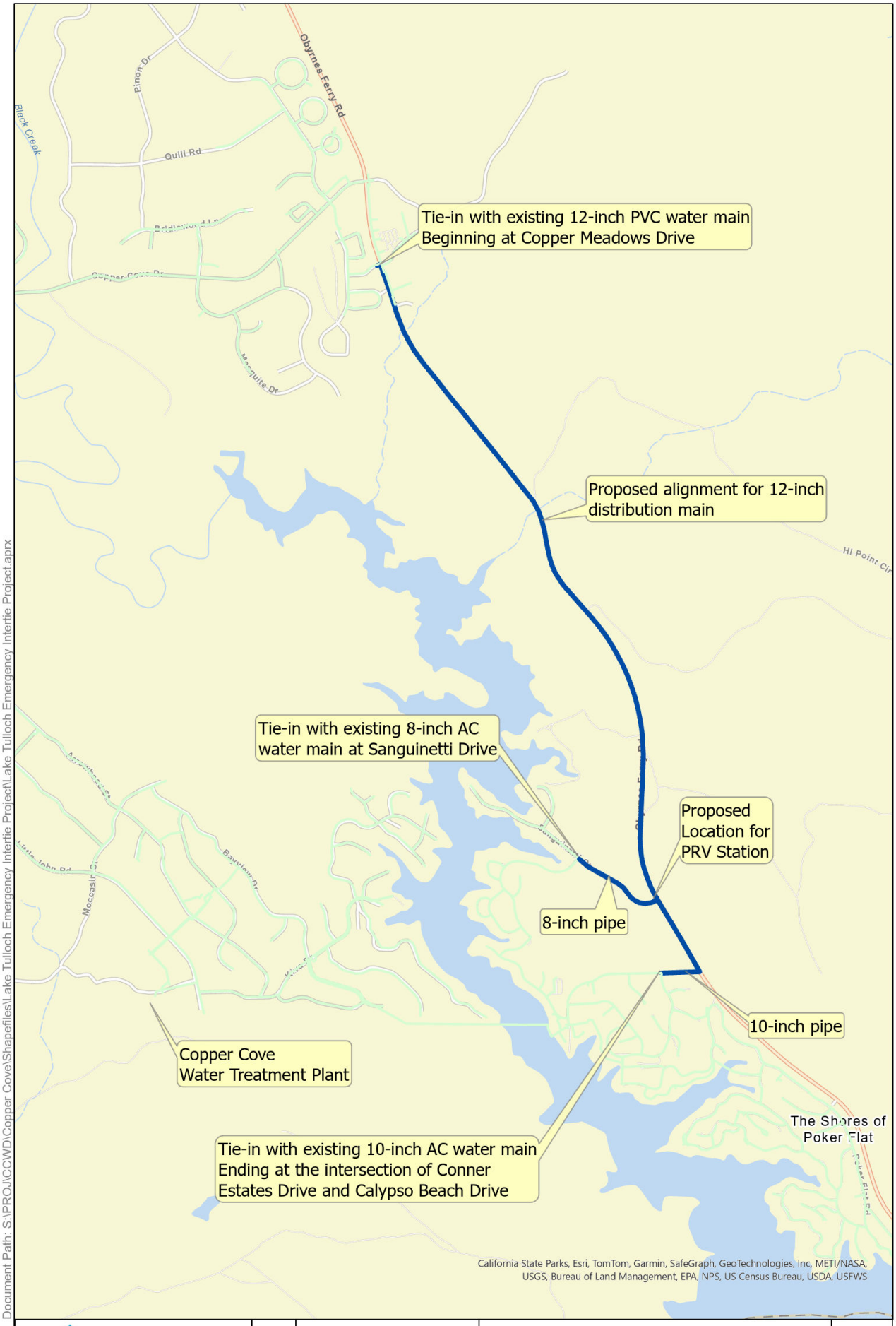
The beginning of the proposed transmission main will tie in with the existing 12-inch PVC water main near Copper Meadows Drive. It is recommended to end the proposed transmission main tie-in with the existing 10-inch AC water main at Conner Estates Drive. Locating the tie-in for the 12-inch transmission main at Connor Estates Drive reduces the amount of trenching and repaving. It is also recommended an additional tie-in to the existing 8-inch AC water main at Sanguinetti Drive be included in the proposed transmission main to meet FF requirements. Figure 10 shows the proposed alignment along O'Byrnes Ferry Road with tie-in locations.

Per County requirements, the entire lane that the pipeline is constructed in will need to be overlayed due to the recent repaving and increased PCI. To reduce extra repaving, the alignment should be limited to one side of the roadway. Due to the pressurized sewer main and underground telecommunication cables present on the west side of O'Byrnes Ferry Road, the location of the proposed transmission main is recommended to be on the east side of the roadway.

The culverts identified by the County along O'Byrnes Ferry Road present potential conflicts and may require a Department of Drinking Water (DDW) variance request. The DDW variance request will be required for any culvert crossing where the minimum clearance requirements cannot be met.

O'Byrnes Ferry Road is a heavily traveled, narrow two-lane roadway surrounded by rocky terrain. The east side of the roadway has stretches where the shoulder has adequate space for the proposed transmission main. The remainder of the roadway is flanked by rocky slopes that make it difficult to construct a pipeline. It is recommended the proposed alignment be constructed on the shoulder of the east side of O'Byrnes Ferry Road, where possible. In areas of the roadway where there is no shoulder, the transmission main will deflect into the roadway. It is assumed approximately 75 percent of the proposed transmission main will be in the roadway and the remaining 25 percent will be in the shoulder.

It is recommended the pipeline be constructed on the east side of O'Byrnes Ferry Road. The proposed alignment will be in the shoulder as often as possible and will deflect to the roadway when there is no shoulder. This location minimizes potential conflict with underground utilities and reduces the amount of repaving required.



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May 2024

CALAVERAS COUNTY WATER DISTRICT

Proposed Alignment along O'Byrnes Ferry Road

FIGURE **10**

Recommendations

The Lake Tulloch Intertie project has been identified to serve as the primary supply to the B4 Zone.

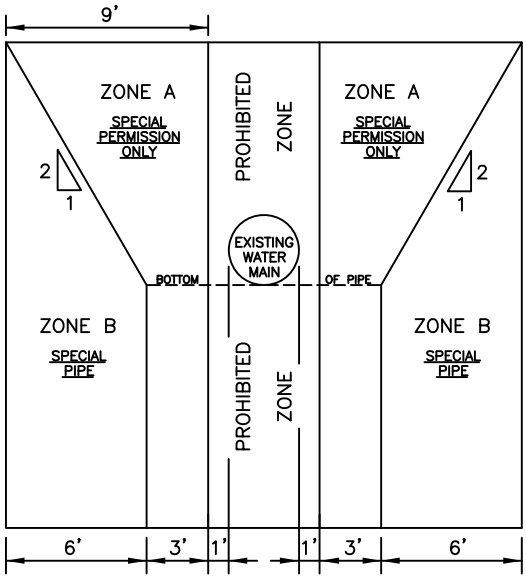
The recommended project includes the construction of approximately 15,320 feet of 12-inch transmission main that supplies the B4 Zone from the C Tanks. The proposed alignment is in the public right-of-way along O'Byrnes Ferry Road, beginning at Copper Meadows Road and ending at Connor Estates Drive. AVV and blowoff valve assemblies shall be installed at the transmission main high-points and low-points, respectively. Gate valves will be installed inline every 2000 feet to isolate the system during an emergency or planned outages. The transmission main shall include one PRV station, which is recommended to be installed near Sanguinetti Drive.

It is recommended the transmission main be constructed using 12" PVC DR 14 pipe to reduce construction costs.

The alignment within the public right-of-way on O'Byrnes Ferry Road is recommended to be constructed on the east side of O'Byrnes Ferry Road. The transmission main shall be located in the shoulder wherever possible and will deflect to the roadway when no shoulder is present. This location minimizes potential conflict with underground utilities and reduces the amount of trenching and repaving.

The estimated cost to install the 15,320 foot 12-inch PVC transmission main along O'Byrnes Ferry Road is approximately $7.3 million.

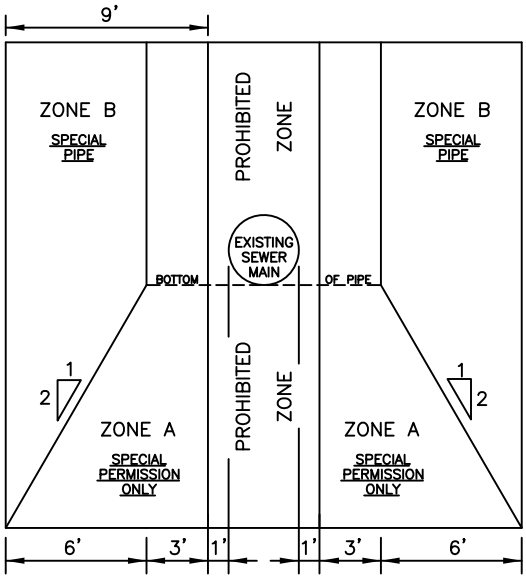
Appendix A



CASE 1 PARALLEL CONSTRUCTION
NEW SEWER - EXISTING WATER

ZONE A: SEWER LINES NOT PERMITTED WITHOUT WRITTEN PERMISSION FROM COUNTY ENVIRONMENTAL HEALTH AND CCWD

ZONE B: NEW SEWER MAIN SHALL BE CONSTRUCTED OF:
PVC PIPE WITH RUBBER RING JOINTS (ASTM D3034)
CAST OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS



CASE 2 PARALLEL CONSTRUCTION
NEW WATER - EXISTING SEWER

ZONE A: WATER LINES NOT PERMITTED WITHOUT WRITTEN PERMISSION FROM COUNTY ENVIRONMENTAL HEALTH AND CCWD

ZONE B: IF EXISTING SEWER MAIN DOES NOT MEET CASE 1 – ZONE B REQUIREMENTS NEW WATER MAIN SHALL BE:
CLASS 200 PVC (DR 14 / AWWA C900–97)
DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING
DIPPED & WRAPPED 1/4" WALL WELDED STEEL PIPE

WATER MAIN SEPARATION:

A. NEW WATER MAINS AND NEW SUPPLY LINES SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY PARALLEL PIPELINE CONVEYING:
   1 – UNTREATED SEWAGE
   2 – PRIMARY OR SECONDARY TREATED SEWAGE
   3 – DISINFECTED SECONDARY–2.2 OR 23 RECYCLED WATER (AS DEFINED IN SECTIONS 60301.220 & 60301.225*)
   4 – HAZARDOUS FLUIDS SUCH AS FUELS, INDUSTRIAL WASTES AND WASTEWATER SLUDGE

B. NEW WATER MAINS AND NEW SUPPLY LINES SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY PARALLEL PIPELINE CONVEYING:
   1 – DISINFECTED TERTIARY RECYCLED WATER (AS DEFINED IN SECTION 60301.230*)
   2 – STORM DRAINAGE PIPES OR CATCHMENTS

C. NEW SUPPLY LINES CONVEYING RAW WATER TO BE TREATED FOR DRINKING PURPOSES SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY BELOW ANY WATER MAIN

D. IF CROSSING A PIPELINE CONVEYING A FLUID LISTED IN (A) OR (B) ABOVE, A NEW WATER MAIN SHALL BE CONSTRUCTED PERPENDICULAR TO AND AT LEAST ONE FOOT ABOVE THAT PIPELINE. NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN EIGHT HORIZONTAL FEET OF SAID FLUID PIPELINE

E. THE VERTICAL SEPARATION SPECIFIED IN (A) (B) & (C) IS REQUIRED ONLY WHEN THE HORIZONTAL DISTANCE BETWEEN A WATER MAIN AND PIPELINE IS ELEVEN FEET OR LESS AS MEASURED FROM THE OUTSIDE EDGE OF EACH PIPE

F. NEW WATER MAINS AND NEW SUPPLY LINES SHALL NOT BE INSTALLED WITHIN 100 FEET HORIZONTALLY OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE, OR WITHIN 25 FEET OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT OR GROUNDWATER RECHARGE PROJECT SITE.

G. THE MINIMUM SEPARATION DISTANCES SET FORTH IN THIS SECTION SHALL BE MEASURED FROM THE NEAREST OUTSIDE EDGE OF PIPE TO THE NEAREST OUTSIDE EDGE OF PIPE IN ALL CASES

*REFERENCED IN CALIFORNIA ADMINISTRATIVE CODE, TITLE 22

NOTES:

1. THE ABOVE CONSTRUCTION CRITERIA APPLIES TO HOUSE SEWER LATERALS CROSSING ABOVE A WATER MAIN
2. SEWER LINES LARGER THAN 24" DIAMETER AND SEWER LINES WITHIN 25 FEET OF LOW–HEAD WATER MAIN SHALL BE REVIEWED AND APPROVED BY COUNTY ENVIRONMENTAL HEALTH DEPT.
3. IN NO CASE SHALL WATER MAINS AND ANY NON–POTABLE PIPELINE CONVEYING SEWAGE OR ANY OTHER FLUID NOTED ABOVE BE INSTALLED IN THE SAME TRENCH

CALAVERAS COUNTY WATER DISTRICT

GENERAL DETAILS
SEPARATION STANDARDS

DRAWN BY:	SCALE:	CCWD STANDARD DRAWING NO.
CCWD STAFF	NONE	G04
APPROVED BY:	UPDATE:	
CHARLES PALMER	09/2021	

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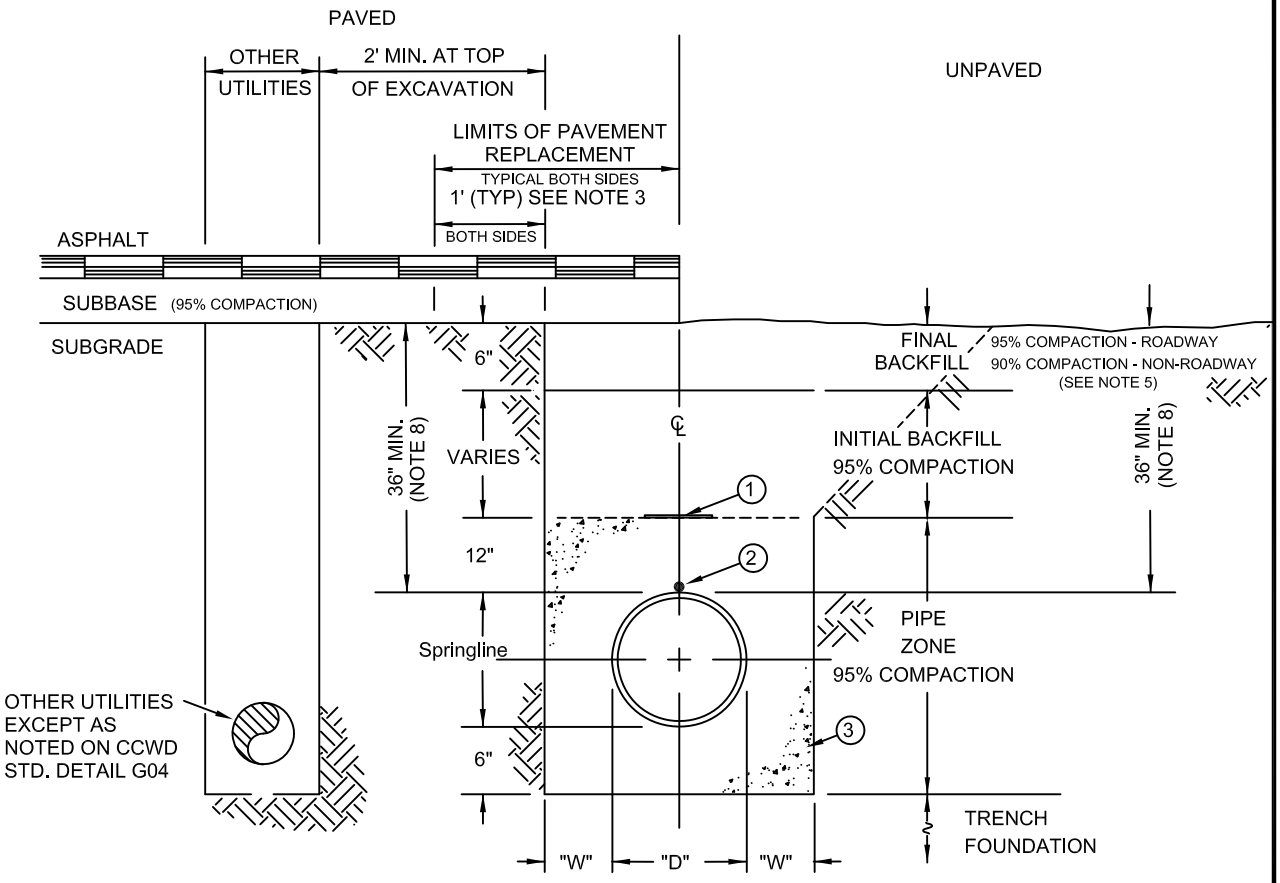

NOTES:

1. FOR EXCAVATIONS THAT WORKERS ENTER/DECEND, PERMITS SHALL BE REQUIRED FOR ALL EXCAVATIONS OVER 5 FEET IN DEPTH AND ANY EXCAVATIONS LESS THAN 5 FEET IN DEPTH IN SOILS THAT HAZARDOUS GROUND MOVEMENT MAY OCCUR.
2. PIPE TO BE LAID WITH LABEL UP ON EACH JOINT.
3. ROAD REPAIR SHALL CONFORM TO ROAD AGENCY PERMIT CONDITIONS AND SPECIFICATIONS. WIDTH OF REPAIR PER COUNTY OR CALTRANS REQUIREMENTS
4. WHEN COUNTY PUBLIC WORKS OR CALTRANS ENCROACHMENT PERMIT CONDITIONS ARE MORE RESTRICTIVE, THEY WILL TAKE PRECEDENCE.
5. EXCEPT FOR TRENCHES CUT IN ROAD SUBGRADE SLOPES AND FILLS, TRENCH WALLS ARE TO BE VERTICAL AND REMAIN WITHIN DESIGNATED LIMITS. ROADWAY INCLUDING AREAS UNDER PAVING, AREAS WITHIN 5-FT OF EDGE OF PAVEMENT, AND ALL SLOPES AND FILLS WITHIN ROADBED'S STRUCTURAL SECTION/SUBGRADE SHALL BE BACKFILLED TO 95% RELATIVE COMPACTION.
6. TRACER WIRE TO BE INCLUDED ON ALL PIPELINES INCLUDING SERVICE LATERALS.
7. SEE DETAIL G05A FOR UNSTABLE CONDITIONS.
8. PRECEDENCE SHALL BE GIVEN TO DEPTH OF COVER SHOWN ON PLAN AND PROFILE SHEETS, AND NOT LESS THAN 36-INCHES MINIMUM COVER.

PIPE ZONE EXCAVATION LIMITS		
D	W (min.)	W (max.)
<10"	6"	9"
≥10"	9"	12"

ITEM #	DESCRIPTION
①	2" WIDE WARNING TAPE (COLOR - MARKING) BLUE - "WATER" GREEN - "SEWER"
②	TRACER WIRE
③	PIPE ZONE MATERIAL

CALAVERAS COUNTY WATER DISTRICT

GENERAL DETAILS
TRENCH SECTION

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO.
APPROVED BY: CHARLES PALMER	UPDATE: 09/2021	G05

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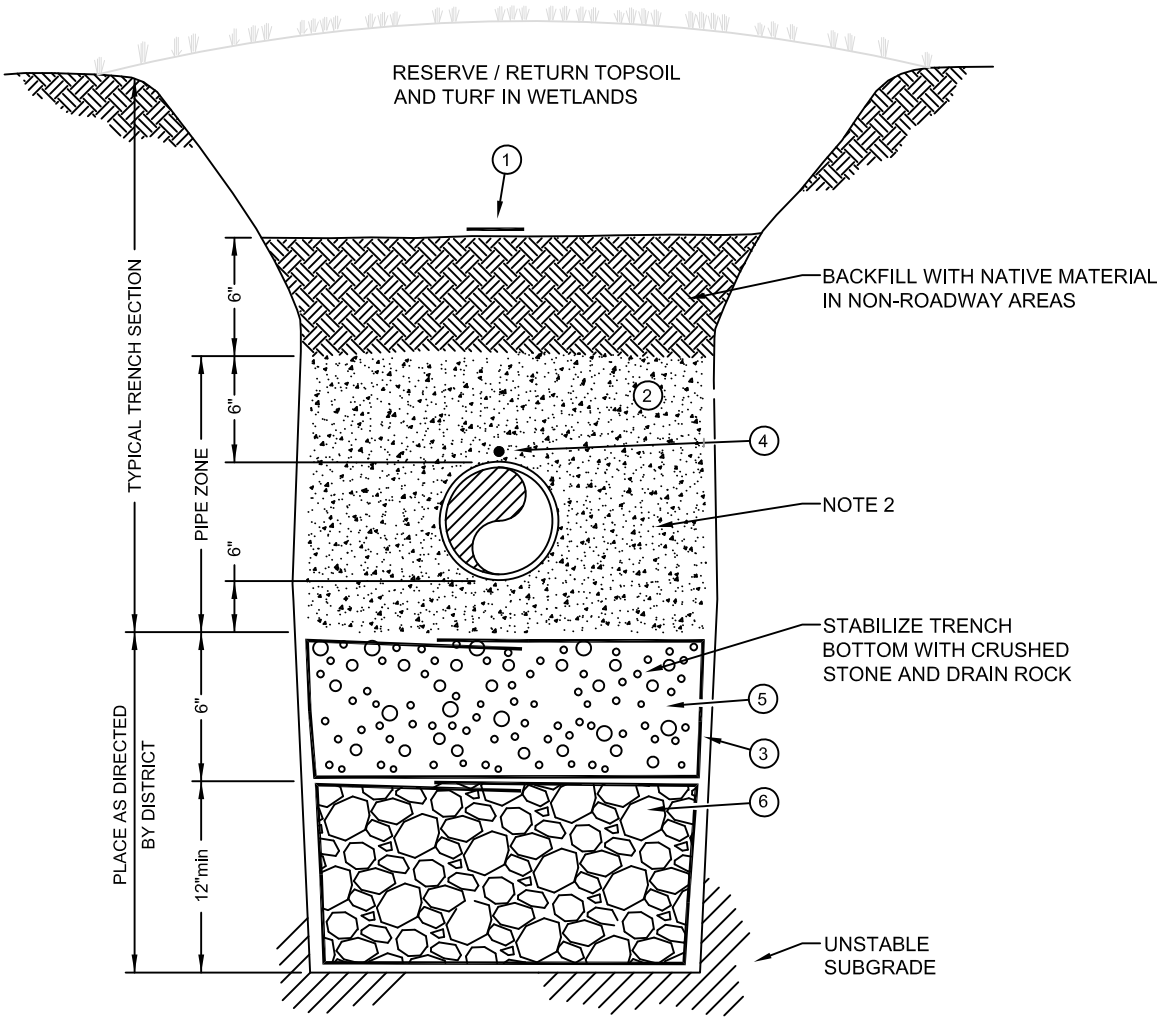

ITEM #	DESCRIPTION
1	WARNING TAPE (SEE DETAIL G05)
2	CALTRANS CLASS 2 (A.B.) AGGR. BASE
3	NONWOVEN GEOTEXTILE CLOTH, MINIMUM 8 oz
4	TRACER WIRE
5	3/4" CRUSHED ROCK
6	1-1/2" DRAIN ROCK

NOTES:

1. CONSTRUCTION SHALL HAVE PRIOR APPROVAL BY THE DISTRICT.
2. ALL EXCAVATION SHALL BE IN CONFORMANCE WITH CAL/OSHA REQUIREMENTS.
3. ELEC. CONDUITS INSTALLED BY CCWD SHALL MEET CURRENT PG&E TRENCH STANDARDS & INCLUDE WARNING TAPE AS SHOWN.

CALAVERAS COUNTY WATER DISTRICT

GENERAL DETAILS
TRENCH SECTION - UNSTABLE SUBGRADE

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO.
APPROVED BY: CHARLES PALMER	DATE: 09/2021	G05A

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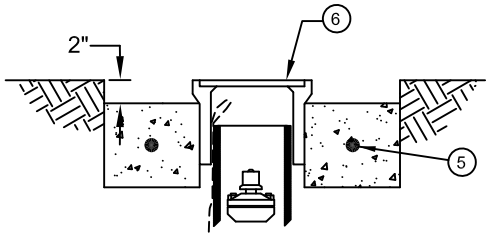
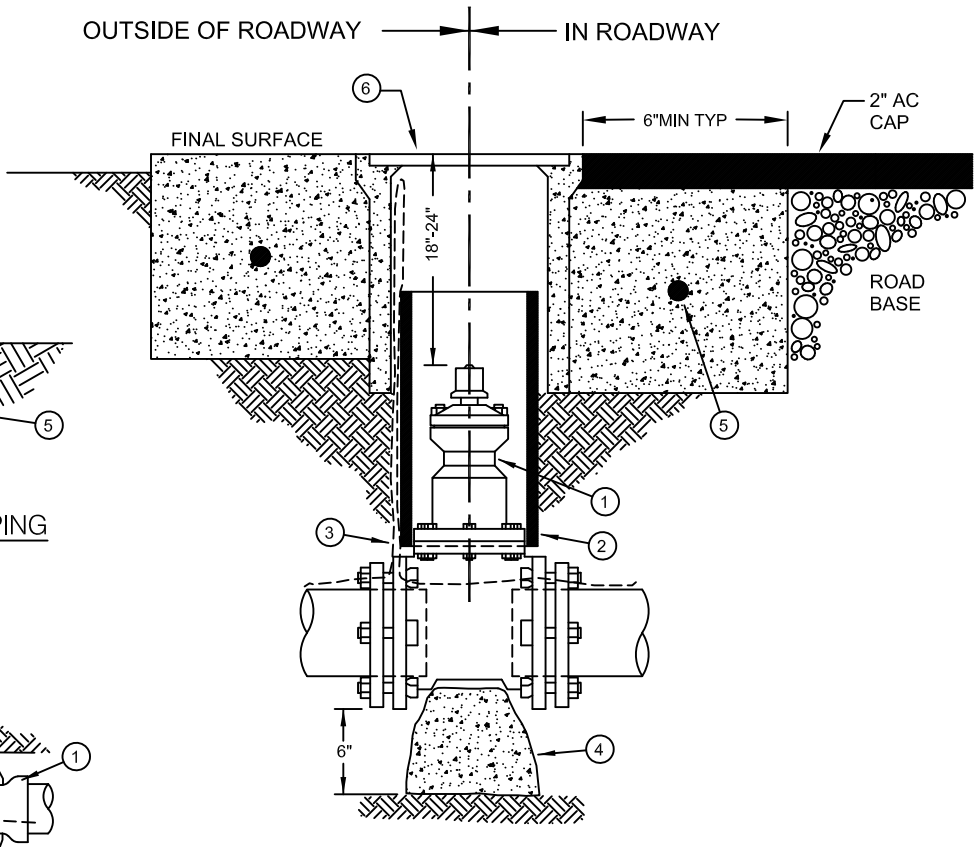
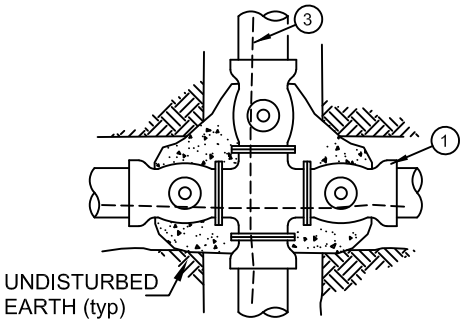


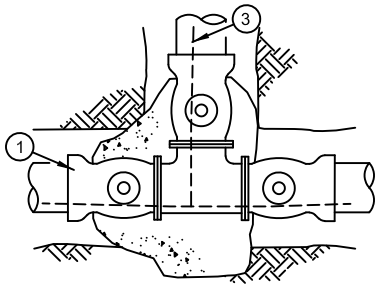
INSTALLATION IN LANDSCAPING



GATE VALVE DETAIL



CROSS INSTALLATION



TEE INSTALLATION

ITEM #	DESCRIPTION
1	GATE VALVE, RESILIENT SEAT
2	8" C900 P.V.C. RISER
3	TRACER WIRE FOR ALL INSTALLATIONS (PER DETAIL W02 & W02A)
4	CONCRETE BLOCK, 3sqft AREA, BOTTOM THRUST AREA, REQUIRED FOR VALVES 8" OR LARGER
5	#4 REBAR HOOP
6	CHRISTY G5 OR APPROVED EQUAL CONCRETE VALVE BOX BODY WITH TRAFFIC TYPE CI COVER MARKED WATER. RECESS BOX 1/4" MAX. FOR SNOW REMOVAL ABOVE 2000'.

NOTES:

1. ALL GATE VALVES SHALL BE EPOXY COATED, AWWA APPROVED AND FULLY ENCAPSULATED WITH RESILIENT SEAT, MECHANICAL JOINT OR FLANGE.
2. VALVES PLACED FOR FUTURE LINE EXTENSIONS SHALL HAVE A BLIND FLANGE PLACED OVER THE OUTLET.
3. WHEN OPERATING NUT IS GREATER THAN 36" FROM FG, INSTALL STEM EXTENSIONS. (see CCWD W03A)

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
GATE VALVE INSTALLATION

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO.
APPROVED BY: CHARLES PALMER	DATE: 09/2021	W03

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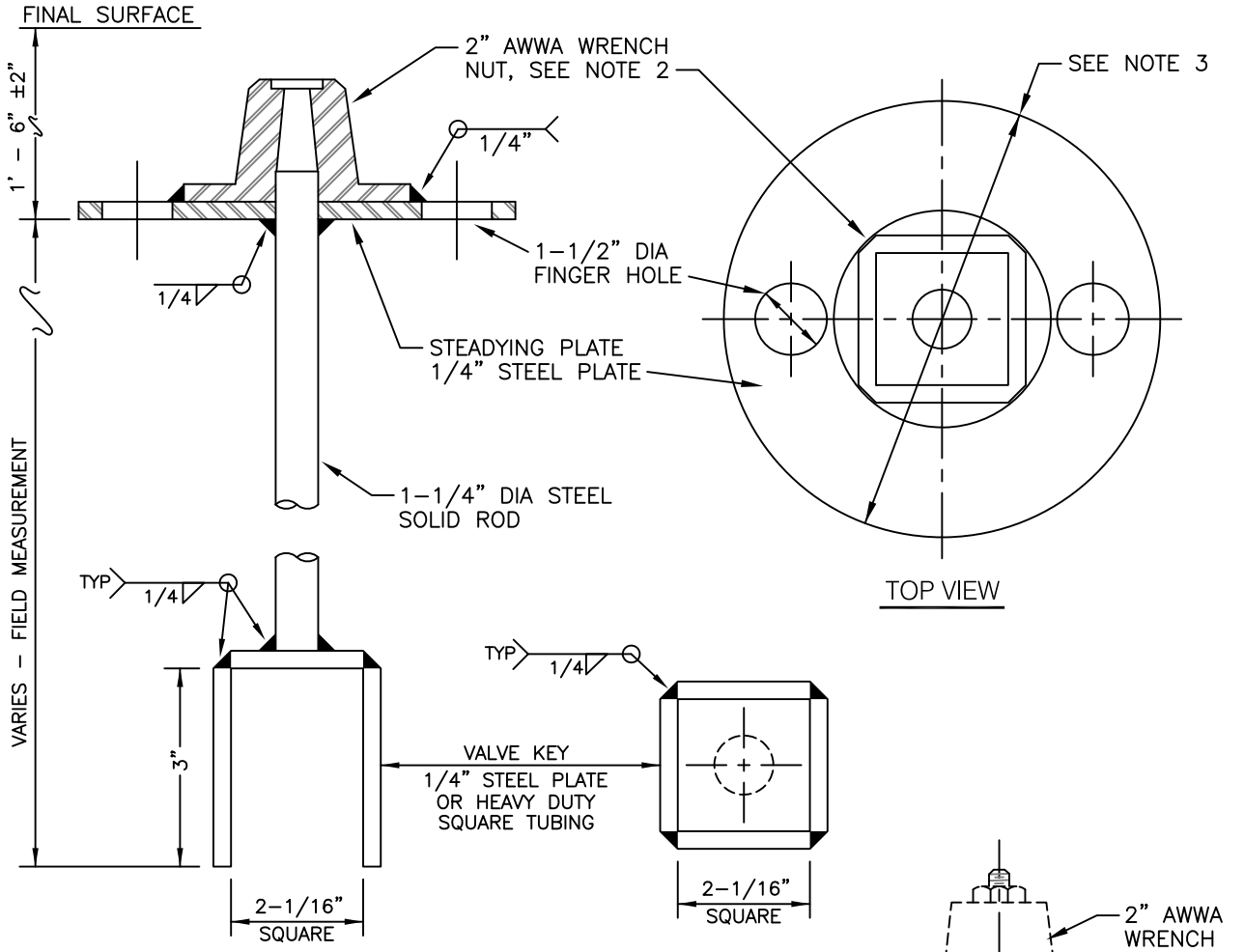

NOTES:

1. AN EXTENSION SHALL BE REQUIRED WHEN THE TRENCH DEPTH IS 36" (in) OR MORE BELOW THE FINAL SURFACE, OR AS SPECIFIED.
2. WRENCH NUT SHALL BE AS SPECIFIED IN AWWA C500, SECTION 20. PEEN TOP OF SHAFT TO SECURE THE NUT, OR ATTACH BY WELDING.
3. STEADYING PLATE DIAMETER SHALL BE EQUAL TO THE INSIDE DIAMETER OF THE VALVE BOX EXTENSION MINUS 3/4" (in).
4. COAT ENTIRE ASSEMBLY IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
GATE VALVE EXTENSION INSTALLATION

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO.
APPROVED BY: CHARLES PALMER	DATE: 09/2021	W03A

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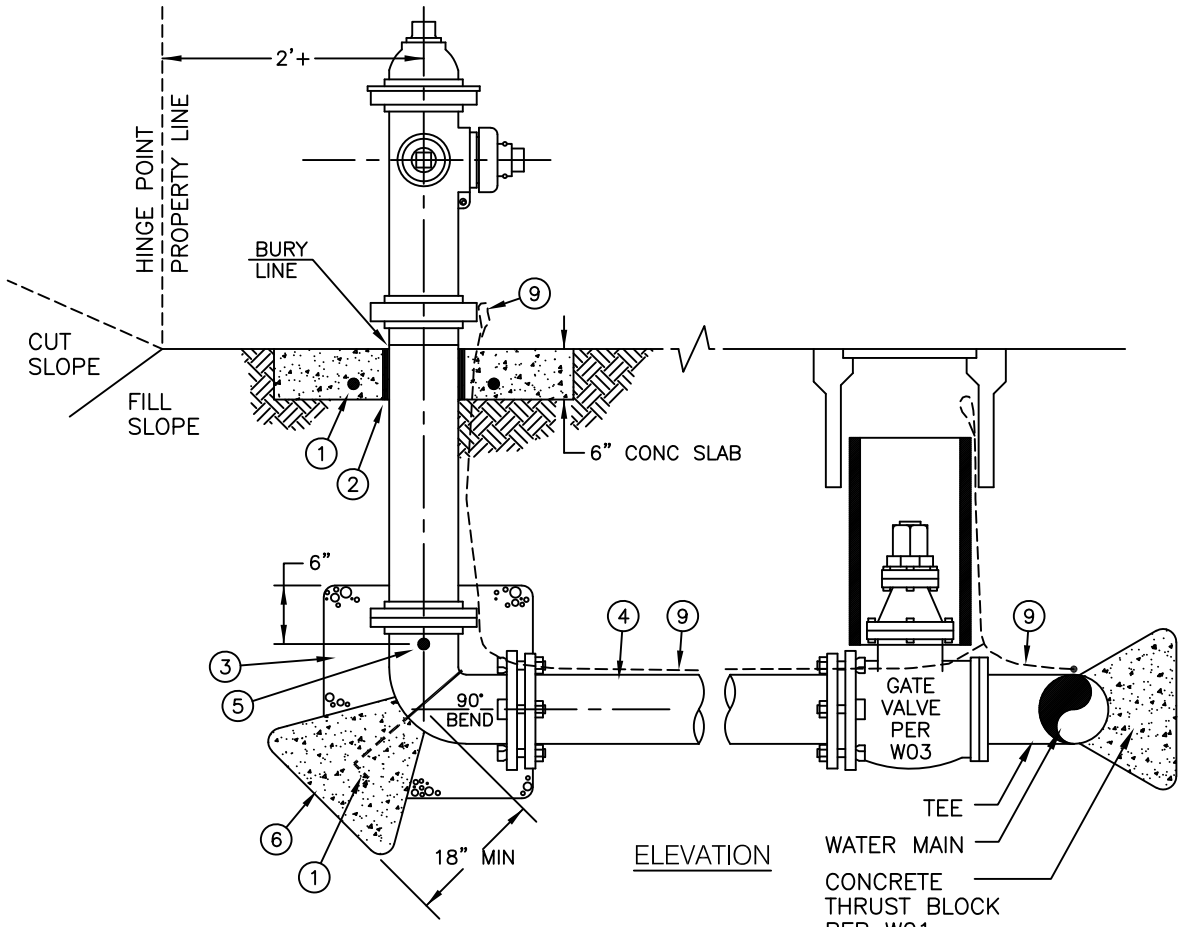

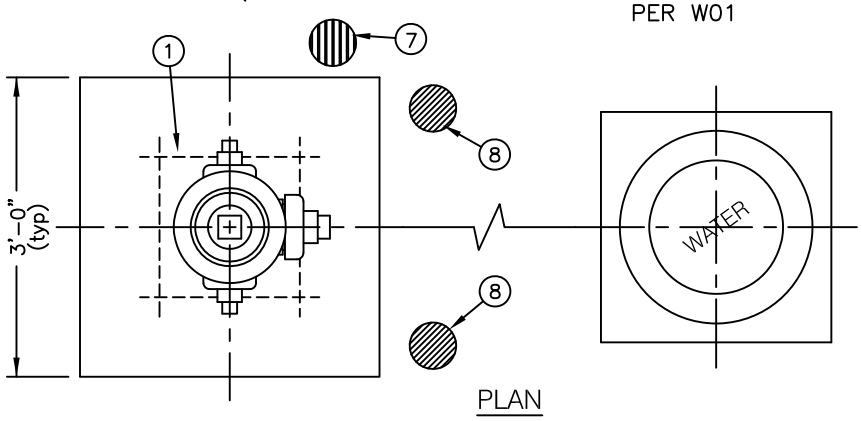

ITEM #	DESCRIPTION
1	#4 REBAR
2	PLASTIC WRAP
3	DRAINAGE PIT, APPROX 2.5' sq, 2.5' DEEP FILLED w/ 3/4" CRUSHED DRAIN ROCK
4	6" C-900 P.V.C.
5	HYDRANT DRAIN, REMOVE PLUG WHEN INSTALLING
6	CONCRETE THRUST BLOCK w/#4 REBAR, 6 sqft MIN THRUST AREA
7	PADDLE MARKER W/ SNOW POLE AS REQUIRED ABOVE 2500'
8	GUARD POST AS REQUIRED
9	LOCATOR WIRE FOR ALL INSTALLATIONS (PER DETAIL W02 & W02A)

NOTES:

1. USE TAPPING SLEEVE AND VALVE ON EXISTING MAINS 8" (in) AND LARGER.
2. INSTALL GUARD POSTS & SNOW POLES AS DIRECTED.
3. SEE STD DWG W04A FOR FIRE HYDRANT LOCATIONS.
4. SET CONCRETE PAD TO FIT/MATCH HYDRANT BURY LINE

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
TYPICAL FIRE HYDRANT INSTALLATION

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO. W05
APPROVED: CHARLES PALMER	DATE: 09/2021	

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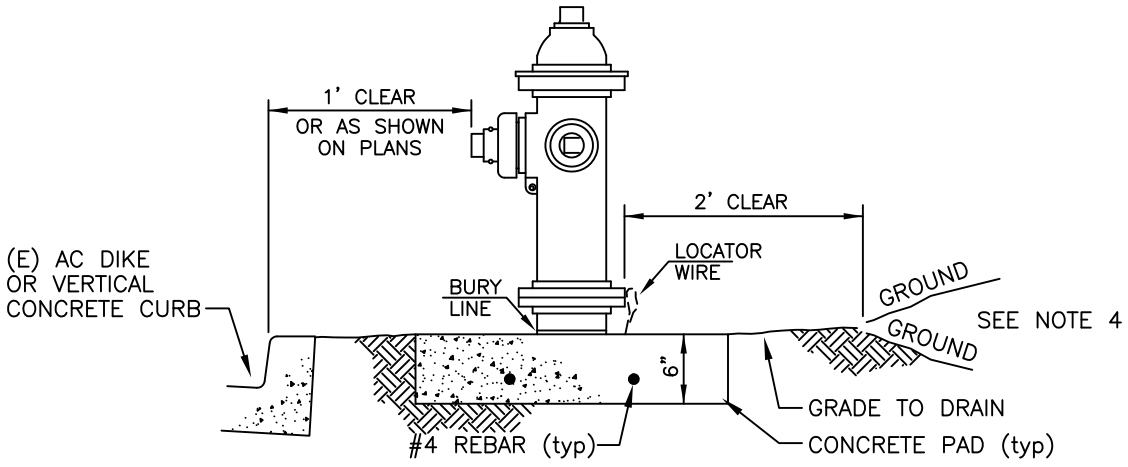
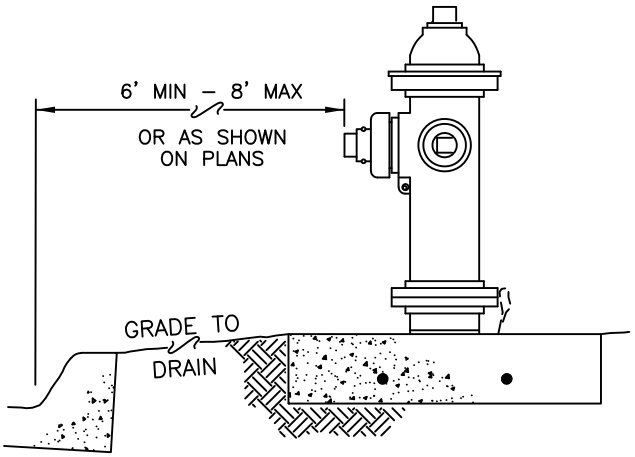
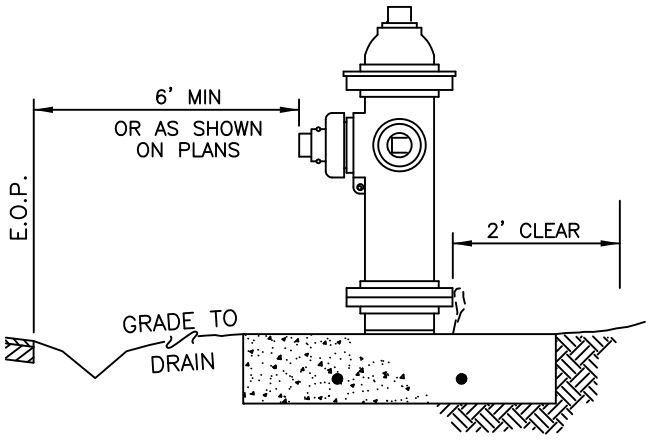


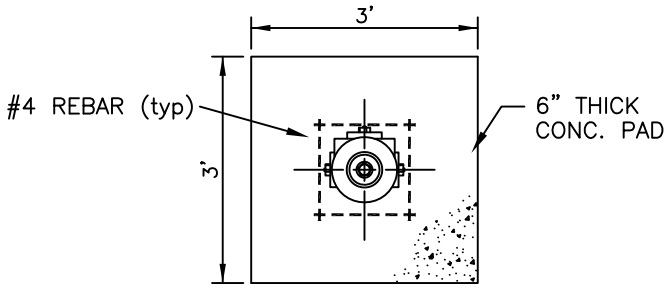
BEHIND VERTICAL CURB & GUTTER



BEHIND ROLLED CURB & GUTTER



WITHOUT CURB & GUTTER



PAD DETAIL

NOTES:

1. THE FIRE HYDRANT IS TO BE PLACED BEHIND THE DRAINAGE DITCH AND NO FURTHER THAN 8' (ft) FROM DRIVEABLE SHOULDER SURFACE, BACK OF CURB, OR PER AGENCY INVOLVED.
2. ALL VALVE BOXES SET IN THE AC OR CONCRETE TO BE FINISHED GRADE MINUS 1/4" (in).
3. FOR TYPICAL INSTALLATION, SEE DETAIL W05.
4. ALTERNATE LOCATIONS & SLOPES GREATER THAN 2:1 IN ANY INSTANCE MUST HAVE DISTRICT ENGINEER'S APPROVAL PRIOR TO INSTALLATION.

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
TYPICAL FIRE HYDRANT LOCATION

DRAWN BY:	SCALE:	CCWD STANDARD DRAWING NO.
CCWD STAFF	NONE	W04A
APPROVED BY:	DATE:	
CHARLES PALMER	09/2021	

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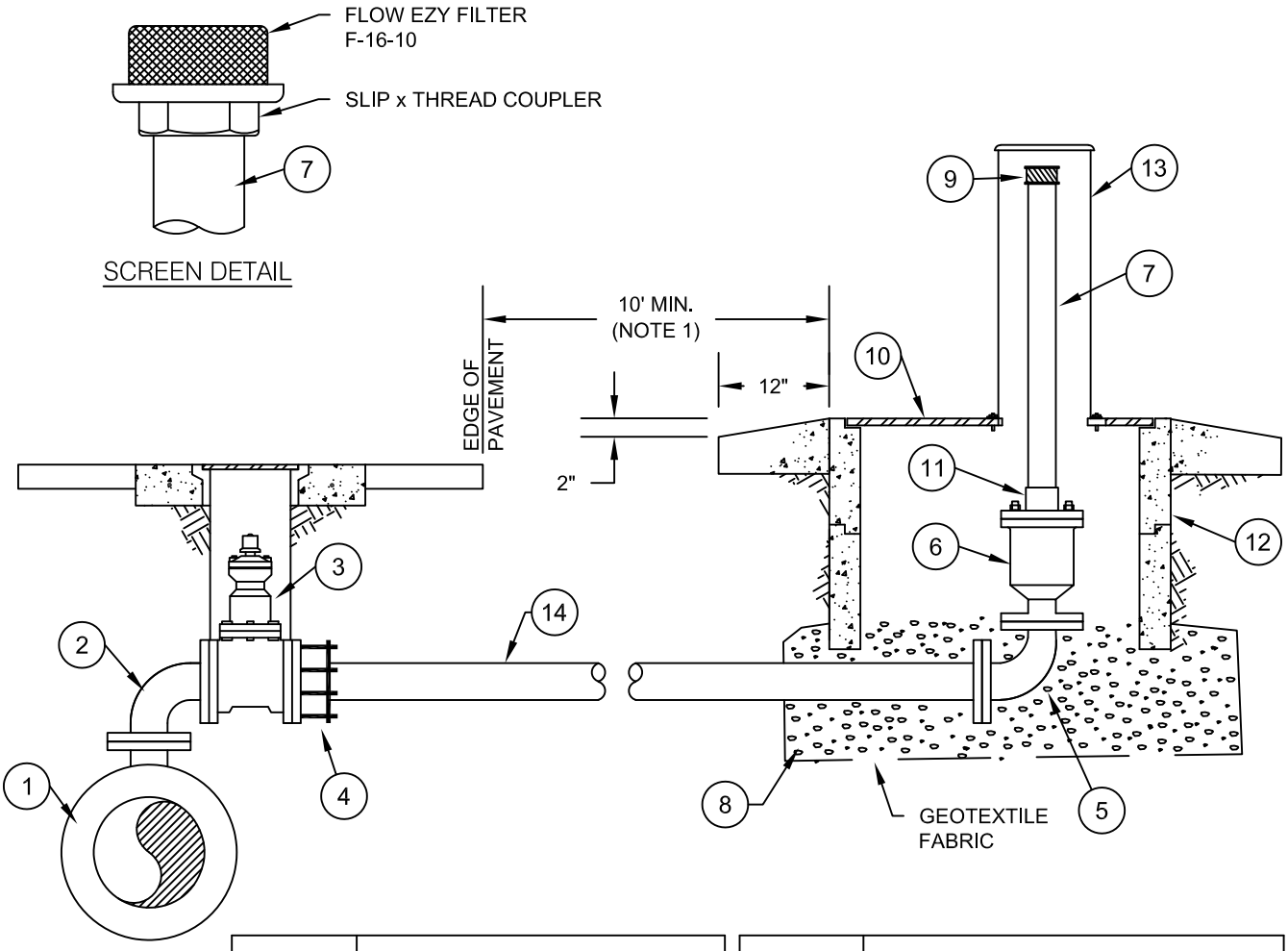


ITEM #	DESCRIPTION
1	12" X 4" DUCTILE IRON TEE
2	4" DUCTILE IRON 90° FLG BEND
3	4" AWWA GATE VALVE (SEE SPECIFICATIONS)
4	4" EBAA MEGA FLANGE OR EQUAL
5	4" X 3" RED 90° EL. SCH40(FUSION EPOXY COATED) CL300 FLG
6	3" AIR/SURGE/ VAC VALVE (SEE SPECIFICATIONS)
7	3" SCH80 PVC (NOTE 3)

ITEM #	DESCRIPTION
8	1/2" CRUSHED ROCK ENCAPSULATED IN GEO-TEXTILE
9	FLOW EZY FILTER SEE SCREEN DETAIL
10	3/16" DIAMOND PLATE 20.25" x 33.25" PLACER WATERWORKS PW/218(1730)
11	3" SCH 80 THREAD X SOLVENT WELD COUPLING
12	JENSEN PRECAST HT1730 TRAFFIC BOX OR EQUAL
13	8"X8"X18" AIR VENT TUBE, PLACER WATERWORKS AV-18
14	4" DIP SPOOL CLASS 250 FLANGED X PLAIN END

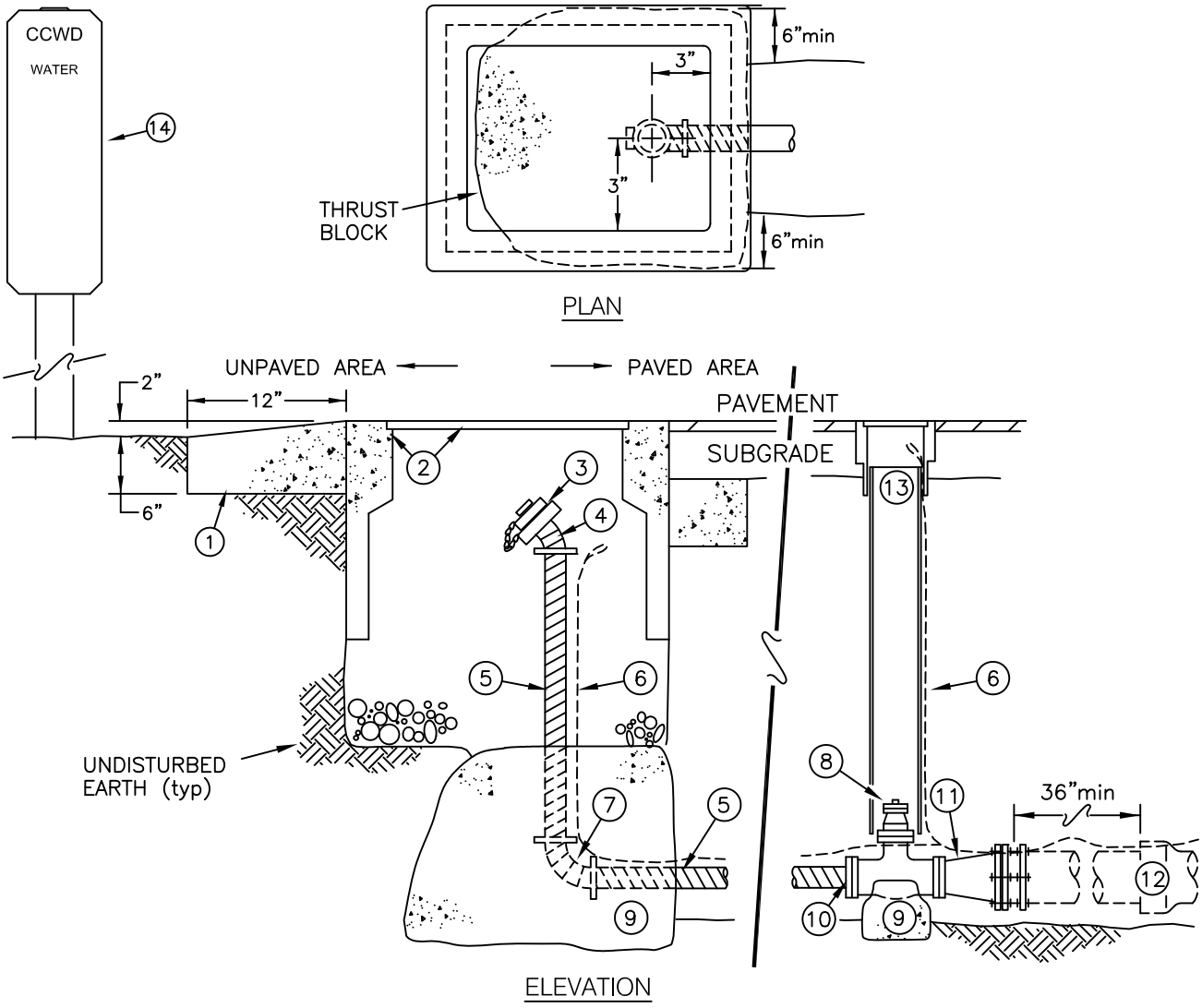
NOTES:

1. AIR VALVE BOX SHALL NOT BE LOCATED IN DRAINAGE DITCH. FINAL PLACEMENT AND LOCATION SHALL BE APPROVED BY ENGINEER TO SUITE ACTUAL FIELD CONDITIONS, TOPOGRAPHY AND GRADE.
2. PIPING INSTALLED PER STANDARD TRENCH DETAIL WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE.
3. PRE-WELD PIPE TO COUPLING BEFORE THREADING INTO TOP OF AIR VALVE; SOLVENT MAY DAMAGE AIR VALVE.

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
AIR RELEASE VALVE (HIGH PRESSURE)

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO.
APPROVED: CHARLES PALMER	DATE: 09/2021	W05



ITEM #	DESCRIPTION
1	6"x6" CONC COLLAR (PAVED) 6"x12" CONC COLLAR (UNPAVED)
2	CHRISTY PRECAST CONC. BOX B30 OR EQUAL w/STEEL COVER MARKED WATER
3	2" NOZZEL CAP, HOSE NOZZEL & CAP CHAIN, MUELLER FAB SERIES OR APPROVED EQUAL
4	2" BRASS 45° ELL, FIPxFIP
5	2" BRASS PIPE
6	LOCATOR WIRE PER W03 & W03A
7	2" BRASS 90° ELL, FIPxFIP

ITEM #	DESCRIPTION
8	4" GATE VALVE, FLxMJ PER W04 & W04A
9	THRUST BLOCKS PER W02 (USE 4" CALC'S)
10	4"x2" REDUCER FLANGE
11	__"x 4" REDUCER, MJxFL
12	8" OR SMALLER MAIN
13	VALVE BOX PER W04
14	PADDLE MARKER PER G11A

NOTES:

1. 2" BLOW-OFFS TO BE INSTALLED ON 8" AND SMALLER MAINS.
2. DISTRICT ENGINEER APPROVAL REQUIRED FOR BLOW-OFFS LARGER THAN 2".

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
2" DEAD-END BLOW-OFF VALVE

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO. W06
APPROVED: CHARLES PALMER	DATE: 09/2021	

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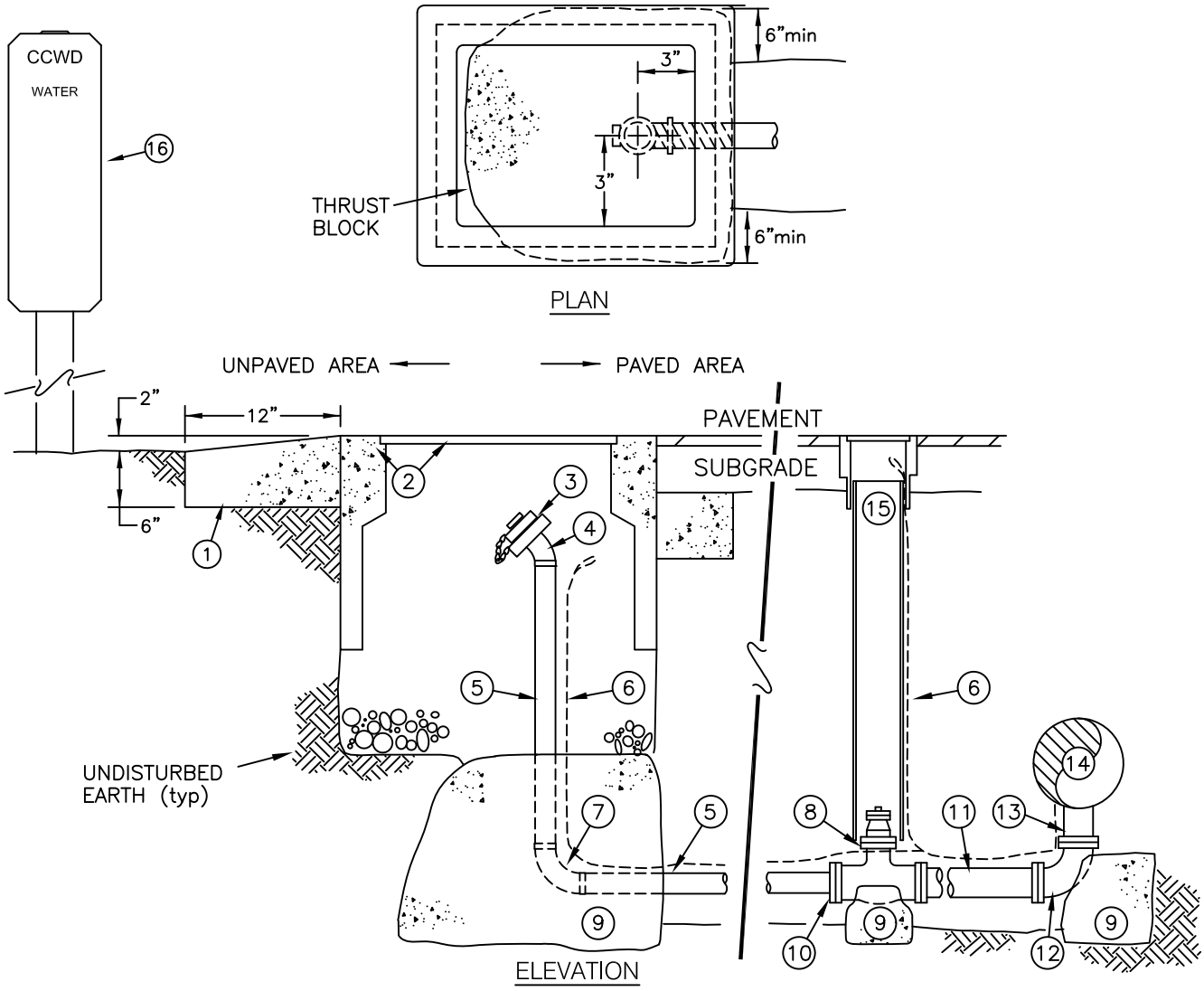

ITEM #	DESCRIPTION
1	6"x6" CONC COLLAR (PAVED) 6"x12" CONC COLLAR (UNPAVED)
2	UTILITY BOX w/STEEL COVER MARKED WATER
3	2" NOZZEL CAP, HOSE NOZZEL & CAP CHAIN, MUELLER FAB SERIES OR APPROVED EQUAL
4	2" BRASS 45° ELL, FIPxFIP
5	2" BRASS PIPE
6	TRACER WIRE
7	2" BRASS 90° ELL, FIPxFIP
8	4" GATE VALVE, FLxFL PER W03 & W03A

ITEM #	DESCRIPTION
9	THRUST BLOCKS PER W02 (USE 4" CALC'S)
10	___"x 2" FLxFIP THREADED REDUCER
11	4" DIP, FLxFL
12	___X 4" DIP 90° BEND, FLxFL
13	___X 4" TEE FLxFL
14	8" OR SMALLER MAIN
15	VALVE BOX PER W03
16	PADDLE MARKER PER G12A

NOTES:

1. 2" BLOW-OFFS TO BE INSTALLED ON 8" AND SMALLER MAINS.
2. DISTRICT ENGINEER APPROVAL REQUIRED FOR BLOW-OFFS LARGER THAN 2".

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS
2" IN-LINE BLOW-OFF VALVE

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO. W06A
APPROVED: CHARLES PALMER	DATE: 09/2021	

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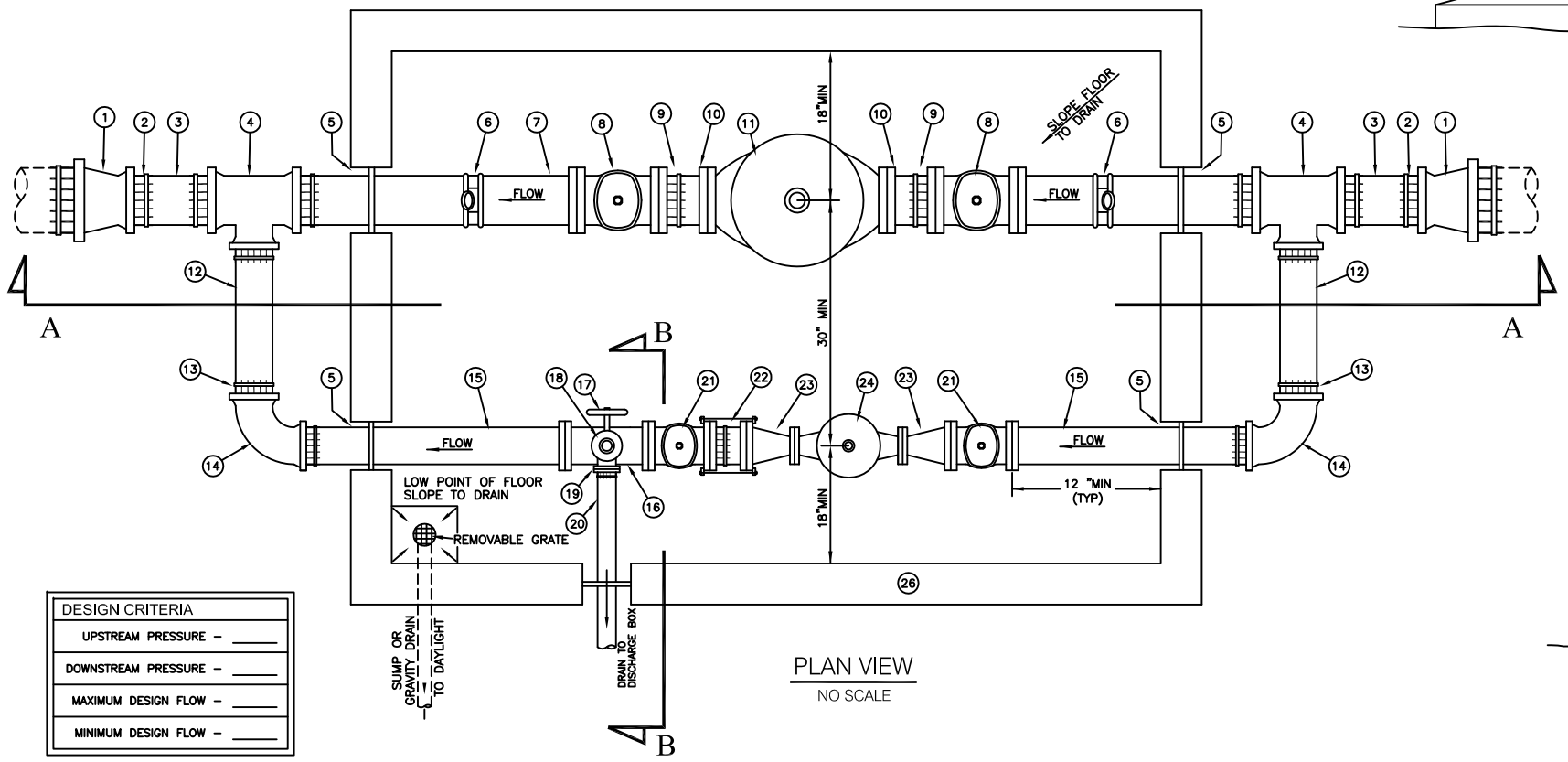
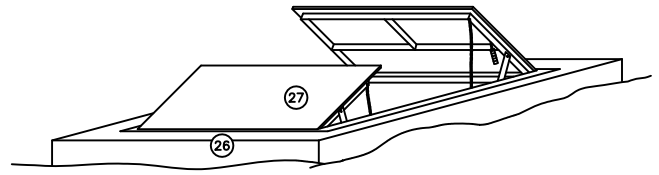
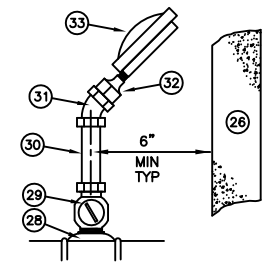


PLAN VIEW
NO SCALE

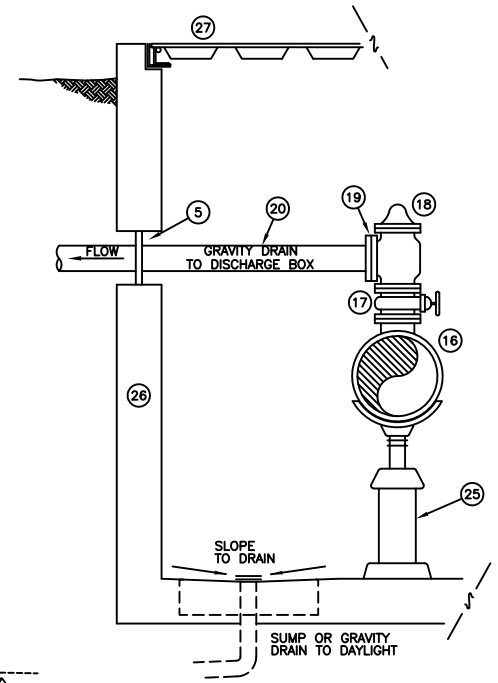
DESIGN CRITERIA
UPSTREAM PRESSURE – _____
DOWNSTREAM PRESSURE – _____
MAXIMUM DESIGN FLOW – _____
MINIMUM DESIGN FLOW – _____



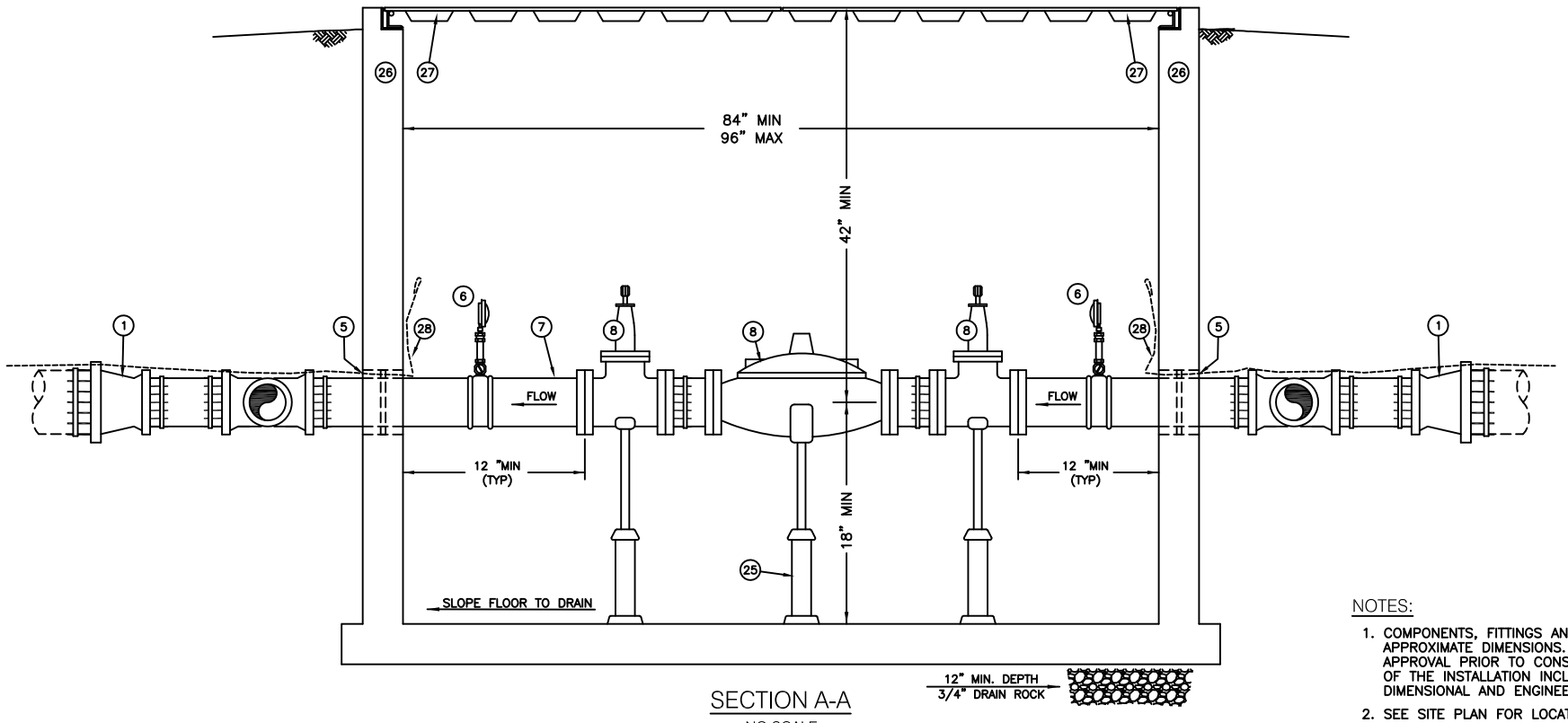
TOP VIEW OF VAULT
NO SCALE



PRESSURE GAGE (6)
NO SCALE



SECTION B-B
NO SCALE



SECTION A-A
NO SCALE

ITEM	DESCRIPTION
1	__" X 6" DUCTILE IRON REDUCER, MJ X MJ (IF REQUIRED)
2	MECHANICAL RESTRAINT GLAND (ROMAC GRIP RING, 350–PSI)
3	6" D.I.P. SPOOL, PLAIN ENDS
4	6" X 6" X 4" DUCTILE IRON TEE, MJ X MJ
5	CORE DRILL OR FORMED HOLES; FILL ANNULAR VOID WITH NON–SHRINK CONSTRUCTION GROUT, SAKRETE, SIKAGROUT, FIVE STAR, OR EUQAL
6	SADDLE, CORP STOP, PRESSURE GAGE ASSEMBLY (SEE DETAIL THIS SHEET)
7	6" D.I.P. SPOOL, FLANGE X PLAIN END, THICKNESS CLASS 53
8	6" AWWA C515 GATE VALVE, FL X FL, AWWA NUT OPERATORS, 350–PSI WORKING PRESSURE RATED, (MUELLER 350 A–2361)
9	6" RESTRAINED FLANGE ADAPTOR (EBAA 2100 MEGAFLANGE, 350–PSI)
10	6" D.I.P. SPOOL, CLASS 250 FLANGED END x PLAIN END
11	6" PRESSURE REDUCING VALVE, FL x FL (CLASS 300), CLA–VAL SERIES 90
12	4" D.I.P. SPOOL, PLAIN ENDS
13	MECHANICAL RESTRAINT GLAND (ROMAC GRIP RING, 350–PSI)
14	4" 90–DEGREE BEND, MJ X MJ
15	4" D.I.P. SPOOL, FLANGE X PLAIN ENDS, THICKNESS CLASS 53
16	4" X 4" X 2" DUCTILE IRON TEE, FLANGED ENDS
17	2" AWWA C515, GATE VALVE, FLANGED, 250–PSI UL/FM RATED WORKING PRESSURE, 375–PSI SEAT TEST, 500–PSI SHELL TEST, HANDWHEEL OPERATOR
18	2" PRESSURE RELIEF VALVE, FL X FL (CLASS 150), CLA–VAL SERIES 50
19	2" CLASS 150, ANSI B16.5, THREADED FLANGE, EPOXY COATED
20	2" SCH.40 STEEL PIPE, EXPOSED PIPE IN VAULT EPOXY PAINTED, PRIOR TO INSTALLING WRAP BURIED PIPE WITH CHASE TAPECOAT TR–GREEN OR EQUAL.
21	4" AWWA C515 GATE VALVE, FL X FL, AWWA NUT OPERATOR, 350–PSIG WORKING PRESSURE RATED (MUELLER 350 A–2361)
22	4" DISMANTLING JOINT, FL X FL (AWWA CLASS E), ROMAC DJ400 (275–PSI)
23	2"X4" FABRICATED FLANGED REDUCER BUTTWELD FITTING, CARBON STEEL CLASS 150 X CLASS 300 RATED FUSION EPOXY COATED PER AWWA C213
24	4" PRESSURE REDUCING VALVE, FL X FL (CLASS 300), CLA–VAL SERIES 90
25	PIPE SUPPORT, HOT DIP GALVANIZED, PLACER WATERWORKS (PW/PS) WITH STANDARD (PW/SDL–S) AND EXTRA LARGE (PW/SDL–X) SADDLES
26	PRECAST CONCRETE VAULT, MINIMUM 6'–0" I.D. X 8'–0" I.D., H20 TRAFFIC
27	MINIMUM 72"x84" DOUBLE LEAF HATCH, HOT DIP GALVANIZED, 1/4" STEEL 2–BAR FRAME, 1/4" STEEL DIAMOND PLATE, STAINLESS STEEL HARDWARE AND SAFETY ARMS, TORSION ASSIST, FOUR 1/2" SECURITY BOLTS, H20 TRAFFIC RATED (OFF STREET) AND H25 TRAFFIC RATED (ON STREET) LOCATIONS.
28	SERVICE SADDLE (MUELLER DR2A, NYLON DUCTILE IRON, DOUBLE STRAP)
29	3/4" CORP. STOP BALL VALVE (MUELLER 300–PSI, F.I.P. OUTLET, AWWA C800)
30	3/4" THREADED PIPE NIPPLE (RED BRASS ASTM B43, SCHEDULE 40)
31	3/4" 45–DEGREE BRASS COUPLING, LEAD FREE, CLASS 250 (MINIMUM)
32	BRASS REDUCER BUSHING, 3/4" MALE TO 1/4" FEMALE NPT REDUCING BUSHINGS (SWAGELOK 12–RB–4 OR EQUAL)
33	BOURDON TUBE PRES. GAGES (WIKA TYPE 213.53DW, LIQUID FILLED), DOWNSTREAM 0–300 PSI / UPSTREAM 0–400 PSI SCALE

NOTES:

1. COMPONENTS, FITTINGS AND OTHER DETAILS SHOWN HEREON, HAVE BEEN DRAWN TO APPROXIMATE DIMENSIONS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF THE INSTALLATION INCLUDING SIZE, LOCATION, MANUFACTURERS NAME, MODEL AND DIMENSIONAL AND ENGINEERING DATA OF ALL COMPONENTS.
2. SEE SITE PLAN FOR LOCATION OF ALIGNMENTS AND OUTLETS.
3. PRESSURE REDUCING VALVES AND ALL UPSTREAM PIPES, FITTINGS, AND VALVES AND OTHER APPURTENANCES SHALL HAVE WORKING PRESSURE RATING OF NOT LESS THAN 350 P.S.I. EXCEPT AS OTHERWISE NOTED.

CALAVERAS COUNTY WATER DISTRICT

PRESSURE REDUCING STATION
6" MAIN / 4" X 2" BYPASS (PRESSURE CLASS 250/300)

DRAWN BY: CCWD STAFF	SCALE: NONE	CCWD STANDARD DRAWING NO. W13
APPROVED: CHARLES PALMER	DATE: 09/2021	

F:\CCWD\1–ACAD_dwgs\Details\Nov2007_Working_Stds\Final_Dec2008\Water\SD_W14.dwg 20090402.1429

Appendix B

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
EXISTING FIRE FLOW AT BUILD OUT

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
104.1	739.77	1,000.00	99.70	5,061.44	20	11.66	
J-29	0.93	66.26	738.83	1,000.00	19.9	999.71	20
J-30	0.88	69.69	738.83	1,000.00	22.22	1,027.34	20
J-33	1.87	76.05	738.86	1,000.00	28.38	1,098.27	20
476	0.97	62.83	738.88	1,000.00	26.65	1,103.04	20
J-34	0.47	60.90	738.88	1,000.00	26.88	1,112.76	20
J-31	0.46	69.02	738.83	1,000.00	29.21	1,127.73	20
J392	2.27	70.80	738.86	1,000.00	30.22	1,139.60	20
J418	1.37	73.12	738.82	1,000.00	33.28	1,181.58	20
J430	1.18	52.80	738.83	1,000.00	28.43	1,195.67	20
J-32	2.03	58.84	738.86	1,000.00	30.31	1,200.26	20
J-26	0.81	62.65	738.82	1,000.00	31.54	1,203.80	20
J426	0.92	64.56	738.82	1,000.00	33.16	1,227.98	20
J420	1.69	78.43	738.82	1,000.00	38.1	1,239.17	20
493	5.35	79.31	738.81	1,500.00	-0.68	1,270.16	20
478	2.07	54.57	738.85	1,000.00	33.08	1,332.94	20
J428	0.70	67.91	738.83	1,000.00	39.54	1,361.19	20
485	2.44	86.63	738.82	1,000.00	47.81	1,366.39	20
482	0.83	63.36	738.83	1,000.00	38.16	1,380.79	20
J422	2.17	88.25	738.82	1,000.00	49.97	1,396.73	20
J-27	6.33	100.48	738.82	1,000.00	55.58	1,400.84	20
J556	1.49	53.97	739.20	1,500.00	15.65	1,401.55	20
487	3.84	100.31	738.82	1,000.00	55.95	1,406.49	20
J432	5.95	88.40	738.81	1,000.00	50.74	1,416.32	20
J486	2.02	40.73	739.26	1,000.00	29.63	1,460.71	20
J396	1.36	67.84	738.84	1,000.00	42.71	1,463.22	20
468	2.97	58.62	738.86	1,000.00	38.15	1,467.42	20
143	1.87	70.79	739.23	1,000.00	45.07	1,476.03	20
J92	1.96	96.24	738.82	1,000.00	59.99	1,536.00	20
J394	0.83	64.10	738.86	1,000.00	43.05	1,557.34	20
491	0.28	74.17	738.82	1,000.00	48.6	1,557.54	20
150	6.30	93.18	739.19	1,000.00	59.81	1,567.20	20
477	0.48	64.28	738.86	1,000.00	43.39	1,567.77	20
J482	1.61	47.27	739.20	1,000.00	34.8	1,599.40	20
J408	1.10	79.53	738.88	1,000.00	53.61	1,625.49	20
J410	2.27	73.48	738.88	1,000.00	50.09	1,628.79	20
J406	0.81	81.68	738.88	1,000.00	55.23	1,638.26	20
474	1.07	82.31	738.88	1,000.00	55.95	1,651.61	20
J424	1.25	84.81	738.82	1,000.00	57.41	1,656.99	20
J416	1.61	99.72	738.82	1,000.00	66.6	1,661.89	20
149	1.59	91.16	739.19	1,000.00	62.19	1,668.68	20
475	0.85	76.54	738.88	1,000.00	52.97	1,673.06	20
473	2.38	79.63	738.88	1,000.00	54.85	1,673.83	20
492	5.27	91.70	738.82	1,000.00	62.56	1,695.80	20
488	0.49	83.44	738.82	1,000.00	57.76	1,702.80	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
EXISTING FIRE FLOW AT BUILD OUT

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
480	0.73	76.21	738.88	1,000.00	53.43	1,703.10	20
J404	1.04	83.33	738.87	1,000.00	58	1,708.24	20
484	0.70	84.04	738.83	1,000.00	58.35	1,710.31	20
486	0.42	87.43	738.83	1,000.00	60.5	1,711.53	20
472	0.78	76.20	738.87	1,000.00	53.64	1,713.74	20
J402	1.30	77.42	738.87	1,000.00	54.69	1,727.81	20
483	0.90	81.48	738.84	1,000.00	57.47	1,741.60	20
J-28	0.57	88.69	738.82	1,000.00	62.42	1,757.88	20
J398	2.73	86.05	738.85	1,000.00	61.08	1,770.73	20
J400	1.74	79.16	738.87	1,000.00	56.69	1,770.98	20
J414	0.65	77.61	738.88	1,000.00	55.81	1,776.04	20
J366	7.91	95.99	739.19	1,000.00	68.03	1,776.84	20
J370	1.06	89.40	739.19	1,000.00	64.3	1,790.55	20
490	0.67	92.30	738.82	1,000.00	65.64	1,793.87	20
489	0.59	92.34	738.82	1,000.00	65.71	1,795.33	20
481	1.06	82.77	738.87	1,000.00	60.11	1,821.89	20
471	1.36	78.81	738.88	1,000.00	58.14	1,859.65	20
J368	3.22	95.71	739.19	1,000.00	70.47	1,878.64	20
467	1.68	74.27	738.89	1,000.00	55.57	1,892.52	20
148	1.73	88.33	739.19	1,000.00	66.3	1,921.47	20
479	2.25	86.55	738.87	1,000.00	65.12	1,953.96	20
466	1.94	75.36	738.90	1,000.00	57.47	1,968.70	20
J-35	0.92	89.16	738.98	1,500.00	47.03	1,995.84	20
J484	2.38	54.95	739.22	1,000.00	44.37	2,056.37	20
J412	1.99	93.01	738.88	1,000.00	71.61	2,060.20	20
J124	6.95	74.36	738.95	1,000.00	57.98	2,060.62	20
J88	0.84	80.87	738.90	1,000.00	62.87	2,071.31	20
J474	6.51	48.86	739.26	1,000.00	40.06	2,078.94	20
J468	0.73	54.34	739.21	1,000.00	44.14	2,085.81	20
J490	3.22	59.06	739.21	1,500.00	36.78	2,089.62	20
465	2.00	82.02	738.91	1,000.00	64.57	2,135.12	20
J466	0.88	56.92	739.20	1,500.00	36.75	2,148.63	20
152	2.11	88.98	739.22	1,000.00	70.71	2,158.12	20
J376	1.49	88.94	739.22	1,000.00	70.8	2,166.00	20
470	1.25	89.83	738.89	1,000.00	70.88	2,171.03	20
J382	2.83	91.44	739.05	1,000.00	72.61	2,173.26	20
J470	0.97	55.63	739.22	1,000.00	45.76	2,177.60	20
146	1.21	80.20	739.21	1,000.00	64.33	2,183.02	20
J390	2.49	82.68	738.93	1,500.00	49.85	2,196.33	20
138	2.41	76.60	739.23	1,000.00	61.78	2,197.56	20
J450	2.70	91.29	739.23	1,000.00	73.19	2,210.28	20
147	4.48	81.80	739.20	1,000.00	65.97	2,224.24	20
J388	0.76	90.26	738.90	1,000.00	72.17	2,242.38	20
J374	1.66	83.28	739.21	1,000.00	67.48	2,252.14	20
142	1.78	81.82	739.23	1,000.00	66.39	2,252.70	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
EXISTING FIRE FLOW AT BUILD OUT

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J372	6.12	84.07	739.21	1,000.00	68.16	2,264.12	20
151	0.70	84.31	739.23	1,000.00	68.5	2,267.35	20
J380	0.83	75.99	739.08	1,000.00	61.94	2,276.22	20
140	0.99	84.31	739.23	1,000.00	68.61	2,277.64	20
J384	2.49	97.83	739.03	1,500.00	60.17	2,278.44	20
137	7.99	78.92	739.24	1,000.00	64.44	2,284.98	20
460	0.90	64.50	739.11	1,000.00	53.11	2,288.87	20
139	1.55	85.34	739.23	1,000.00	69.54	2,289.08	20
145	1.50	84.20	739.22	1,000.00	68.71	2,298.12	20
464	1.16	81.43	738.98	1,500.00	52.21	2,325.28	20
144	0.56	85.77	739.22	1,000.00	70.43	2,341.93	20
462	1.73	81.78	739.08	1,000.00	67.21	2,350.49	20
141	0.47	85.38	739.22	1,000.00	70.24	2,353.09	20
J492	0.92	63.06	739.19	1,500.00	42.98	2,358.68	20
J386	1.19	74.20	739.05	1,500.00	49.02	2,363.25	20
469	1.21	97.47	738.90	1,000.00	79.33	2,367.91	20
136	2.75	84.47	739.28	1,000.00	70.18	2,411.40	20
J472	5.32	59.94	739.24	1,000.00	50.89	2,470.89	20
135	2.40	81.44	739.28	1,000.00	68.28	2,474.85	20
J480	1.05	73.26	739.20	1,000.00	61.7	2,483.52	20
461	0.93	75.17	739.08	1,000.00	63.08	2,501.57	20
J494	12.18	59.43	739.29	1,000.00	51.12	2,599.42	20
J90	0.60	91.89	738.99	1,500.00	63.69	2,601.19	20
459	1.82	95.09	739.12	1,000.00	80.76	2,649.15	20
J436	3.71	75.42	739.34	1,000.00	64.99	2,699.91	20
463	2.03	95.03	739.01	1,500.00	67.77	2,722.15	20
J462	1.78	69.77	739.25	1,500.00	52.8	2,853.50	20
134	4.70	79.15	739.36	1,000.00	69.56	2,960.33	20
J476	0.67	81.19	739.18	1,000.00	71.19	2,980.34	20
J464	1.78	77.83	739.21	1,500.00	59.99	3,021.45	20
132	6.00	96.42	739.62	1,000.00	85.74	3,094.64	20
1	1.10	86.97	739.16	1,000.00	76.88	3,134.03	20
J478	2.23	75.27	739.28	1,500.00	59.31	3,147.48	20
J558	12.58	87.15	739.17	1,500.00	68.07	3,172.73	20
458	1.58	99.93	739.14	1,000.00	89.37	3,372.50	20
J488	4.58	80.22	739.33	1,500.00	66.06	3,562.73	20
J434	0.66	86.05	739.39	1,500.00	70.97	3,587.09	20
129	0.38	88.86	739.40	1,500.00	75.28	3,927.08	20
128	0.69	87.80	739.41	1,500.00	74.99	4,040.46	20
126	4.00	91.62	739.49	1,500.00	79.9	4,393.75	20
131	0.30	94.65	739.63	1,500.00	84.06	4,662.20	20
130	0.33	93.57	739.59	1,500.00	83.11	4,670.21	20
125	0.30	99.85	739.63	1,000.00	94.43	4,772.16	20
124	0.19	99.21	739.63	1,000.00	93.99	4,811.88	20
123	0.40	104.06	739.77	1,000.00	99.7	5,061.44	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1A - 16" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J-29	0.93	63.74	733.00	1,000.00	12.38	912.18	20
J-30	0.88	67.17	733.00	1,000.00	14.7	941.29	20
476	0.97	60.31	733.05	1,000.00	19.13	988.64	20
J-34	0.47	58.38	733.05	1,000.00	19.36	990.82	20
J-33	1.87	73.53	733.03	1,000.00	20.86	1,011.23	20
J430	1.18	50.28	733.01	1,000.00	20.91	1,019.95	20
J-31	0.46	66.5	733.00	1,000.00	21.69	1,022.29	20
J392	2.27	68.28	733.03	1,000.00	22.7	1,036.22	20
J-32	2.03	56.32	733.03	1,000.00	22.79	1,050.70	20
J-26	0.81	60.13	732.99	1,000.00	24.02	1,065.47	20
J418	1.37	70.6	732.99	1,000.00	25.76	1,074.35	20
J426	0.92	62.04	732.99	1,000.00	25.64	1,089.97	20
J486	2.02	38.23	733.49	1,000.00	23.05	1,121.93	20
478	2.07	52.05	733.02	1,000.00	25.56	1,125.25	20
J420	1.69	75.91	732.99	1,000.00	30.58	1,131.36	20
493	5.35	76.79	732.99	1,500.00	-12.84	1,158.76	20
J556	1.49	51.47	733.42	1,500.00	4.5	1,189.56	20
482	0.83	60.84	733.00	1,000.00	30.64	1,199.79	20
J428	0.70	65.39	733.00	1,000.00	32.03	1,201.60	20
468	2.97	56.1	733.03	1,000.00	30.63	1,239.60	20
485	2.44	84.1	732.99	1,000.00	40.29	1,249.80	20
J482	1.61	44.77	733.42	1,000.00	27.8	1,261.17	20
J422	2.17	85.73	732.99	1,000.00	42.45	1,277.20	20
J396	1.36	65.32	733.02	1,000.00	35.19	1,277.54	20
J432	5.95	85.88	732.99	1,000.00	43.22	1,293.97	20
J-27	6.33	97.96	732.99	1,000.00	48.06	1,299.11	20
487	3.84	97.79	732.99	1,000.00	48.43	1,303.23	20
J394	0.83	61.58	733.03	1,000.00	35.53	1,328.30	20
477	0.48	61.76	733.03	1,000.00	35.87	1,336.27	20
491	0.28	71.65	733.00	1,000.00	41.08	1,368.01	20
J92	1.96	93.72	732.99	1,000.00	52.47	1,403.75	20
J410	2.27	70.96	733.05	1,000.00	42.57	1,419.22	20
J408	1.10	77.01	733.05	1,000.00	46.1	1,436.55	20
J406	0.81	79.16	733.05	1,000.00	47.71	1,452.29	20
475	0.85	74.02	733.05	1,000.00	45.45	1,461.66	20
474	1.07	79.79	733.05	1,000.00	48.43	1,464.15	20
473	2.38	77.11	733.05	1,000.00	47.33	1,472.98	20
J424	1.25	82.29	732.99	1,000.00	49.89	1,474.07	20
143	1.87	68.39	733.66	1,000.00	43.82	1,477.29	20
480	0.73	73.69	733.05	1,000.00	45.91	1,482.06	20
472	0.78	73.68	733.05	1,000.00	46.12	1,489.59	20
J402	1.30	74.9	733.05	1,000.00	47.17	1,504.26	20
488	0.49	80.92	732.99	1,000.00	50.24	1,504.39	20
J404	1.04	80.81	733.05	1,000.00	50.48	1,509.33	20
J416	1.61	97.2	733.00	1,000.00	59.09	1,510.96	20
484	0.70	81.52	733.00	1,000.00	50.83	1,511.98	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
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APPENDIX B
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ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
492	5.27	89.18	732.99	1,000.00	55.05	1,521.71	20
486	0.42	84.91	733.00	1,000.00	52.98	1,522.19	20
483	0.90	78.96	733.01	1,000.00	49.96	1,527.34	20
J414	0.65	75.09	733.05	1,000.00	48.29	1,539.10	20
J400	1.74	76.64	733.04	1,000.00	49.17	1,541.53	20
J-28	0.57	86.17	732.99	1,000.00	54.91	1,560.34	20
J398	2.73	83.53	733.02	1,000.00	53.56	1,563.65	20
J474	6.51	46.37	733.49	1,000.00	33.48	1,568.44	20
481	1.06	80.25	733.05	1,000.00	52.59	1,590.47	20
490	0.67	89.78	732.99	1,000.00	58.13	1,596.97	20
489	0.59	89.82	732.99	1,000.00	58.19	1,598.16	20
471	1.36	76.29	733.05	1,000.00	50.62	1,602.56	20
467	1.68	71.75	733.06	1,000.00	48.05	1,605.17	20
J468	0.73	51.85	733.46	1,000.00	37.42	1,627.28	20
J484	2.38	52.46	733.48	1,000.00	37.88	1,635.17	20
466	1.94	72.84	733.07	1,000.00	49.95	1,661.26	20
J466	0.88	54.42	733.42	1,500.00	25.59	1,669.72	20
J490	3.22	56.57	733.46	1,500.00	26.18	1,678.31	20
150	6.30	90.93	733.99	1,000.00	62.8	1,693.25	20
479	2.25	84.03	733.04	1,000.00	57.6	1,697.95	20
J470	0.97	53.15	733.48	1,000.00	39.27	1,710.09	20
J124	6.95	71.84	733.12	1,000.00	50.47	1,718.16	20
J-35	0.92	86.64	733.16	1,500.00	34.87	1,738.19	20
J88	0.84	78.35	733.07	1,000.00	55.36	1,755.08	20
460	0.90	61.98	733.28	1,000.00	45.59	1,781.76	20
J412	1.99	90.49	733.06	1,000.00	64.09	1,795.45	20
465	2.00	79.5	733.08	1,000.00	57.05	1,803.15	20
149	1.59	88.91	734.00	1,000.00	65.17	1,832.35	20
J492	0.92	60.55	733.40	1,500.00	31.56	1,834.96	20
J390	2.49	80.16	733.11	1,500.00	37.69	1,846.73	20
470	1.25	87.31	733.06	1,000.00	63.37	1,860.47	20
J380	0.83	73.47	733.26	1,000.00	54.42	1,862.58	20
J382	2.83	88.92	733.23	1,000.00	65.09	1,872.26	20
J386	1.19	71.68	733.22	1,500.00	36.86	1,900.39	20
J494	12.18	56.91	733.46	1,000.00	43.8	1,906.04	20
J388	0.76	87.74	733.07	1,000.00	64.65	1,910.27	20
464	1.16	78.91	733.16	1,500.00	40.05	1,922.16	20
462	1.73	79.26	733.26	1,000.00	59.69	1,943.02	20
J366	7.91	93.74	733.99	1,000.00	71.02	1,962.87	20
J480	1.05	70.74	733.37	1,000.00	54.16	1,964.63	20
J384	2.49	95.31	733.20	1,500.00	48.01	1,967.64	20
J472	5.32	57.47	733.52	1,000.00	45.05	1,983.53	20
461	0.93	72.65	733.26	1,000.00	55.56	1,986.48	20
J370	1.06	87.16	734.00	1,000.00	67.28	2,007.00	20
469	1.21	94.95	733.07	1,000.00	71.81	2,023.79	20
J462	1.78	67.24	733.39	1,500.00	40.23	2,101.07	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1A - 16" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J368	3.22	93.46	733.99	1,000.00	73.45	2,107.50	20
J90	0.60	89.37	733.17	1,500.00	51.53	2,149.23	20
132	6.00	93.75	733.45	1,000.00	74.12	2,180.61	20
459	1.82	92.57	733.29	1,000.00	73.24	2,199.44	20
148	1.73	86.08	734.00	1,000.00	69.28	2,204.69	20
138	2.41	74.18	733.64	1,000.00	60.19	2,236.88	20
J436	3.71	72.89	733.49	1,000.00	58.92	2,236.90	20
463	2.03	92.51	733.18	1,500.00	55.61	2,240.54	20
J450	2.70	88.88	733.66	1,000.00	71.9	2,263.24	20
152	2.11	86.6	733.72	1,000.00	70.26	2,268.82	20
J464	1.78	75.3	733.37	1,500.00	47.64	2,273.32	20
J376	1.49	86.56	733.71	1,000.00	70.33	2,277.15	20
J478	2.23	72.73	733.41	1,500.00	46.46	2,280.34	20
136	2.75	82	733.56	1,000.00	66.58	2,280.84	20
137	7.99	76.49	733.62	1,000.00	62.37	2,286.43	20
J476	0.67	78.68	733.36	1,000.00	63.79	2,302.93	20
142	1.78	79.42	733.66	1,000.00	65.14	2,325.10	20
135	2.40	78.97	733.56	1,000.00	64.68	2,330.71	20
151	0.70	81.9	733.66	1,000.00	67.18	2,332.13	20
140	0.99	81.9	733.66	1,000.00	67.34	2,348.53	20
134	4.70	76.6	733.47	1,000.00	62.8	2,350.73	20
139	1.55	82.93	733.65	1,000.00	68.2	2,353.53	20
1	1.10	84.45	733.33	1,000.00	69.36	2,418.38	20
J558	12.58	84.63	733.34	1,500.00	55.85	2,442.89	20
141	0.47	82.98	733.67	1,000.00	69.18	2,455.64	20
145	1.50	81.83	733.73	1,000.00	68.41	2,468.18	20
J488	4.58	77.67	733.44	1,500.00	52.58	2,474.11	20
144	0.56	83.39	733.70	1,000.00	69.79	2,484.19	20
146	1.21	77.88	733.86	1,000.00	65.57	2,496.61	20
J374	1.66	80.95	733.82	1,000.00	68.28	2,528.87	20
J434	0.66	83.48	733.46	1,500.00	57.65	2,562.38	20
131	0.30	91.98	733.45	1,500.00	63.94	2,618.69	20
128	0.69	85.22	733.45	1,500.00	59.88	2,636.94	20
458	1.58	97.41	733.31	1,000.00	81.85	2,640.51	20
130	0.33	90.91	733.45	1,500.00	63.77	2,649.97	20
129	0.38	86.28	733.45	1,500.00	60.79	2,650.66	20
J372	6.12	81.78	733.91	1,000.00	70.01	2,665.97	20
126	4.00	89	733.45	1,500.00	62.81	2,671.86	20
125	0.30	97.18	733.45	1,000.00	82.76	2,739.06	20
124	0.19	96.54	733.45	1,000.00	82.24	2,741.28	20
123	0.40	101.33	733.45	1,000.00	86.46	2,759.90	20
147	4.48	79.55	734.01	1,000.00	68.95	2,768.72	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1B - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J486	2.02	37.43	731.64	1,000.00	10.19	751.49	20
J-29	0.93	62.93	731.14	1,000.00	-0.48	793.68	20
J430	1.18	49.47	731.15	1,000.00	8.05	809.09	20
J-30	0.88	66.37	731.14	1,000.00	1.84	822.76	20
J-34	0.47	57.58	731.19	1,000.00	6.49	830.89	20
476.00	0.97	59.51	731.19	1,000.00	6.27	836.56	20
J-32	2.03	55.51	731.17	1,000.00	9.92	859.81	20
J-31	0.46	65.70	731.14	1,000.00	8.83	877.54	20
478.00	2.07	51.25	731.16	1,000.00	12.7	878.26	20
J-26	0.81	59.32	731.13	1,000.00	11.15	884.06	20
J482	1.61	43.97	731.56	1,000.00	14.93	886.78	20
J-33	1.87	72.72	731.18	1,000.00	7.99	887.81	20
J392	2.27	67.48	731.18	1,000.00	9.84	892.93	20
J426	0.92	61.24	731.14	1,000.00	12.77	907.05	20
J556	1.49	50.66	731.56	1,500.00	-19.12	914.37	20
J418	1.37	69.80	731.13	1,000.00	12.9	924.57	20
468.00	2.97	55.29	731.18	1,000.00	17.77	965.22	20
482.00	0.83	60.04	731.14	1,000.00	17.78	967.94	20
J420	1.69	75.11	731.13	1,000.00	17.71	977.68	20
J428	0.7	64.59	731.14	1,000.00	19.16	989.34	20
493.00	5.35	75.98	731.13	1,500.00	-36.46	999.72	20
J474	6.51	45.56	731.64	1,000.00	20.62	1,022.41	20
J396	1.36	64.51	731.16	1,000.00	22.32	1,034.90	20
J394	0.83	60.78	731.17	1,000.00	22.67	1,043.98	20
477.00	0.48	60.96	731.17	1,000.00	23	1,049.15	20
485.00	2.44	83.30	731.13	1,000.00	27.42	1,079.67	20
J422	2.17	84.93	731.13	1,000.00	29.59	1,102.23	20
J468	0.73	51.05	731.6	1,000.00	24.55	1,106.83	20
491.00	0.28	70.85	731.14	1,000.00	28.22	1,114.62	20
J432	5.95	85.08	731.13	1,000.00	30.35	1,115.10	20
J484	2.38	51.66	731.62	1,000.00	25.02	1,118.14	20
J410	2.27	70.16	731.2	1,000.00	29.7	1,143.37	20
J-27	6.33	97.16	731.13	1,000.00	35.2	1,144.43	20
487.00	3.84	96.99	731.13	1,000.00	35.56	1,146.38	20
J466	0.88	53.61	731.56	1,500.00	1.98	1,150.24	20
J470	0.97	52.34	731.62	1,000.00	26.41	1,151.82	20
143.00	1.87	67.58	731.81	1,000.00	30.95	1,171.22	20
J490	3.22	55.77	731.6	1,500.00	2.56	1,177.77	20
J408	1.1	76.21	731.19	1,000.00	33.23	1,178.42	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1B - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
475.00	0.85	73.22	731.19	1,000.00	32.58	1,180.60	20
480.00	0.73	72.89	731.19	1,000.00	33.04	1,190.69	20
472.00	0.78	72.88	731.19	1,000.00	33.25	1,194.85	20
J406	0.81	78.36	731.19	1,000.00	34.85	1,195.89	20
473.00	2.38	76.31	731.19	1,000.00	34.47	1,200.91	20
474.00	1.07	78.98	731.19	1,000.00	35.57	1,205.47	20
J92	1.96	92.92	731.13	1,000.00	39.6	1,207.48	20
J402	1.3	74.10	731.19	1,000.00	34.31	1,208.89	20
J424	1.25	81.49	731.14	1,000.00	37.02	1,219.39	20
J414	0.65	74.29	731.19	1,000.00	35.43	1,229.01	20
488.00	0.49	80.12	731.14	1,000.00	37.38	1,232.36	20
J404	1.04	80.00	731.19	1,000.00	37.61	1,236.32	20
J400	1.74	75.84	731.19	1,000.00	36.31	1,237.90	20
483.00	0.9	78.16	731.15	1,000.00	37.09	1,238.64	20
484.00	0.7	80.72	731.14	1,000.00	37.96	1,239.45	20
467.00	1.68	70.95	731.2	1,000.00	35.18	1,247.82	20
486.00	0.42	84.10	731.14	1,000.00	40.11	1,257.73	20
460.00	0.9	61.18	731.43	1,000.00	32.72	1,264.00	20
471.00	1.36	75.49	731.19	1,000.00	37.75	1,269.85	20
J494	12.18	56.10	731.61	1,000.00	30.93	1,270.15	20
492.00	5.27	88.37	731.13	1,000.00	42.18	1,273.13	20
J492	0.92	59.75	731.54	1,500.00	7.94	1,274.61	20
J398	2.73	82.72	731.16	1,000.00	40.7	1,279.05	20
481.00	1.06	79.45	731.19	1,000.00	39.72	1,281.07	20
466.00	1.94	72.03	731.21	1,000.00	37.08	1,282.98	20
J-28	0.57	85.37	731.14	1,000.00	42.04	1,285.19	20
J416	1.61	96.39	731.14	1,000.00	46.22	1,287.76	20
J472	5.32	56.67	731.67	1,000.00	32.19	1,298.65	20
J124	6.95	71.04	731.26	1,000.00	37.6	1,308.73	20
490.00	0.67	88.98	731.14	1,000.00	45.26	1,319.94	20
489.00	0.59	89.02	731.14	1,000.00	45.32	1,320.77	20
479.00	2.25	83.22	731.19	1,000.00	44.74	1,358.15	20
J88	0.84	77.55	731.21	1,000.00	42.49	1,360.69	20
J380	0.83	72.67	731.4	1,000.00	41.56	1,387.42	20
J386	1.19	70.88	731.36	1,500.00	13.24	1,390.73	20
465.00	2	78.69	731.23	1,000.00	44.19	1,392.14	20
150.00	6.3	90.13	732.13	1,000.00	49.93	1,392.70	20
J-35	0.92	85.84	731.3	1,500.00	11.25	1,393.22	20
J480	1.05	69.93	731.51	1,000.00	41.29	1,414.76	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1B - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J390	2.49	79.35	731.25	1,500.00	14.07	1,418.20	20
461.00	0.93	71.84	731.4	1,000.00	42.7	1,435.48	20
J462	1.78	66.43	731.53	1,500.00	16.61	1,437.99	20
J412	1.99	89.69	731.2	1,000.00	51.23	1,440.00	20
464.00	1.16	78.11	731.3	1,500.00	16.43	1,447.65	20
470.00	1.25	86.51	731.2	1,000.00	50.5	1,460.69	20
462.00	1.73	78.46	731.4	1,000.00	46.82	1,462.65	20
149.00	1.59	88.11	732.14	1,000.00	52.31	1,463.75	20
J382	2.83	88.11	731.37	1,000.00	52.22	1,478.75	20
J388	0.76	86.93	731.21	1,000.00	51.78	1,488.70	20
J436	3.71	72.09	731.63	1,000.00	46.06	1,544.63	20
J370	1.06	86.35	732.14	1,000.00	54.41	1,547.45	20
J478	2.23	71.93	731.56	1,500.00	22.84	1,555.06	20
J384	2.49	94.50	731.34	1,500.00	24.39	1,557.82	20
J366	7.91	92.94	732.13	1,000.00	58.15	1,558.36	20
138.00	2.41	73.38	731.78	1,000.00	47.32	1,558.83	20
J464	1.78	74.50	731.51	1,500.00	24.03	1,574.15	20
469.00	1.21	94.14	731.21	1,000.00	58.94	1,582.29	20
137.00	7.99	75.69	731.76	1,000.00	49.5	1,600.22	20
J476	0.67	77.88	731.51	1,000.00	50.92	1,612.90	20
J90	0.6	88.57	731.31	1,500.00	27.91	1,616.50	20
134.00	4.7	75.80	731.62	1,000.00	49.93	1,619.37	20
J368	3.22	92.66	732.14	1,000.00	60.59	1,630.85	20
135.00	2.4	78.16	731.7	1,000.00	51.82	1,632.85	20
148.00	1.73	85.28	732.14	1,000.00	56.42	1,635.83	20
142.00	1.78	78.61	731.81	1,000.00	52.28	1,636.01	20
136.00	2.75	81.19	731.7	1,000.00	53.71	1,636.77	20
151.00	0.7	81.10	731.8	1,000.00	54.31	1,657.44	20
459.00	1.82	91.77	731.43	1,000.00	60.38	1,662.05	20
140.00	0.99	81.10	731.81	1,000.00	54.47	1,664.17	20
132.00	6	92.94	731.59	1,000.00	61.25	1,664.44	20
152.00	2.11	85.79	731.86	1,000.00	57.39	1,665.76	20
J376	1.49	85.76	731.85	1,000.00	57.46	1,668.78	20
J488	4.58	76.87	731.59	1,500.00	28.96	1,671.04	20
139.00	1.55	82.13	731.8	1,000.00	55.33	1,674.30	20
J450	2.7	88.08	731.8	1,000.00	59.03	1,677.36	20
463.00	2.03	91.70	731.32	1,500.00	31.99	1,678.13	20
146.00	1.21	77.08	732	1,000.00	52.71	1,688.90	20
1.00	1.1	83.65	731.47	1,000.00	56.5	1,702.60	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 1B - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
145.00	1.5	81.03	731.87	1,000.00	55.55	1,710.97	20
141.00	0.47	82.17	731.82	1,000.00	56.32	1,714.01	20
J558	12.58	83.83	731.48	1,500.00	32.24	1,720.76	20
J374	1.66	80.15	731.96	1,000.00	55.41	1,727.26	20
144.00	0.56	82.58	731.85	1,000.00	56.93	1,728.67	20
J434	0.66	82.68	731.6	1,500.00	34.04	1,751.67	20
J372	6.12	80.98	732.05	1,000.00	57.14	1,786.73	20
128.00	0.69	84.42	731.59	1,500.00	36.26	1,792.44	20
147.00	4.48	78.75	732.15	1,000.00	56.09	1,802.31	20
129.00	0.38	85.48	731.59	1,500.00	37.17	1,806.26	20
126.00	4	88.20	731.59	1,500.00	39.2	1,838.48	20
131.00	0.3	91.17	731.59	1,500.00	40.33	1,839.45	20
130.00	0.33	90.11	731.59	1,500.00	40.16	1,843.24	20
458.00	1.58	96.61	731.46	1,000.00	68.99	1,883.86	20
124.00	0.19	95.74	731.59	1,000.00	69.37	1,919.81	20
125.00	0.3	96.38	731.59	1,000.00	69.89	1,923.68	20
123.00	0.4	100.53	731.59	1,000.00	73.59	1,962.21	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2A - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J-29	0.93	63.89	733.35	1,000.00	15.94	951.42	20
J-30	0.88	67.32	733.35	1,000.00	18.26	980.4	20
476	0.97	60.46	733.4	1,000.00	22.69	1,041.43	20
J-34	0.47	58.53	733.4	1,000.00	22.91	1,047.07	20
J-33	1.87	73.68	733.38	1,000.00	24.41	1,051.95	20
J-31	0.46	66.65	733.35	1,000.00	25.25	1,071.68	20
J392	2.27	68.43	733.38	1,000.00	26.25	1,084.89	20
J430	1.18	50.43	733.36	1,000.00	24.47	1,100.99	20
J-32	2.03	56.47	733.38	1,000.00	26.34	1,120.86	20
J418	1.37	70.75	733.34	1,000.00	29.31	1,125.51	20
J-26	0.81	60.28	733.34	1,000.00	27.57	1,130.87	20
J426	0.92	62.19	733.34	1,000.00	29.19	1,155.78	20
J420	1.69	76.06	733.34	1,000.00	34.13	1,183.78	20
493	5.35	76.94	733.34	1,500.00	-6.25	1,213.28	20
478	2.07	52.20	733.37	1,000.00	29.12	1,223.92	20
J428	0.7	65.54	733.35	1,000.00	35.58	1,280.01	20
482	0.83	60.99	733.35	1,000.00	34.2	1,288.27	20
J556	1.49	51.62	733.77	1,500.00	11.08	1,302.30	20
485	2.44	84.26	733.34	1,000.00	43.84	1,308.32	20
J486	2.02	38.38	733.84	1,000.00	26.61	1,311.51	20
J422	2.17	85.88	733.34	1,000.00	46.01	1,337.59	20
J-27	6.33	98.11	733.34	1,000.00	51.62	1,350.91	20
468	2.97	56.25	733.38	1,000.00	34.19	1,350.97	20
487	3.84	97.94	733.34	1,000.00	51.98	1,355.87	20
J432	5.95	86.03	733.34	1,000.00	46.77	1,355.94	20
J396	1.36	65.47	733.37	1,000.00	38.74	1,370.09	20
J482	1.61	44.92	733.77	1,000.00	31.35	1,441.27	20
J394	0.83	61.73	733.38	1,000.00	39.09	1,442.79	20
477	0.48	61.92	733.38	1,000.00	39.42	1,452.15	20
491	0.28	71.80	733.35	1,000.00	44.63	1,464.42	20
J92	1.96	93.87	733.34	1,000.00	56.02	1,472.31	20
J410	2.27	71.12	733.4	1,000.00	46.12	1,526.49	20
J408	1.1	77.16	733.4	1,000.00	49.65	1,534.03	20
J406	0.81	79.31	733.4	1,000.00	51.27	1,548.60	20
474	1.07	79.94	733.4	1,000.00	51.99	1,561.42	20
J424	1.25	82.44	733.34	1,000.00	53.44	1,568.86	20
475	0.85	74.17	733.4	1,000.00	49	1,569.45	20
473	2.38	77.26	733.4	1,000.00	50.89	1,573.62	20
J416	1.61	97.35	733.35	1,000.00	62.64	1,582.22	20
480	0.73	73.85	733.4	1,000.00	49.46	1,582.82	20
143	1.87	68.54	734.01	1,000.00	47.37	1,584.40	20
472	0.78	73.83	733.4	1,000.00	49.67	1,587.61	20
488	0.49	81.07	733.34	1,000.00	53.79	1,589.94	20
J404	1.04	80.96	733.4	1,000.00	54.03	1,593.12	20
484	0.7	81.67	733.35	1,000.00	54.38	1,594.35	20
J402	1.3	75.05	733.39	1,000.00	50.73	1,595.69	20
492	5.27	89.33	733.34	1,000.00	58.6	1,596.34	20
486	0.42	85.06	733.35	1,000.00	56.53	1,598.18	20
483	0.9	79.11	733.36	1,000.00	53.51	1,606.44	20
J414	0.65	75.24	733.4	1,000.00	51.84	1,616.81	20
J400	1.74	76.79	733.39	1,000.00	52.73	1,617.40	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2A - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J-28	0.57	86.32	733.34	1,000.00	58.46	1,622.25	20
J398	2.73	83.68	733.37	1,000.00	57.12	1,626.67	20
490	0.67	89.93	733.34	1,000.00	61.68	1,643.97	20
481	1.06	80.40	733.39	1,000.00	56.14	1,644.65	20
489	0.59	89.97	733.34	1,000.00	61.74	1,644.69	20
471	1.36	76.45	733.4	1,000.00	54.17	1,654.23	20
467	1.68	71.90	733.41	1,000.00	51.6	1,658.50	20
J474	6.51	46.52	733.84	1,000.00	37.04	1,666.63	20
J468	0.73	52.00	733.8	1,000.00	40.97	1,681.83	20
J484	2.38	52.61	733.83	1,000.00	41.44	1,685.68	20
466	1.94	72.99	733.42	1,000.00	53.5	1,689.18	20
J466	0.88	54.57	733.77	1,500.00	32.18	1,698.75	20
J490	3.22	56.72	733.8	1,500.00	32.77	1,703.04	20
150	6.3	91.08	734.34	1,000.00	66.35	1,705.67	20
479	2.25	84.18	733.39	1,000.00	61.16	1,707.84	20
J470	0.97	53.30	733.83	1,000.00	42.82	1,715.98	20
J124	6.95	71.99	733.47	1,000.00	54.02	1,721.92	20
J-35	0.92	86.79	733.5	1,500.00	41.45	1,730.51	20
J88	0.84	78.50	733.42	1,000.00	58.91	1,738.83	20
460	0.9	62.13	733.63	1,000.00	49.14	1,747.65	20
J412	1.99	90.65	733.41	1,000.00	67.65	1,764.27	20
465	2	79.65	733.43	1,000.00	60.61	1,764.97	20
J492	0.92	60.70	733.75	1,500.00	38.14	1,769.54	20
149	1.59	89.06	734.35	1,000.00	68.73	1,785.19	20
J390	2.49	80.31	733.46	1,500.00	44.28	1,787.87	20
J380	0.83	73.62	733.6	1,000.00	57.98	1,790.90	20
470	1.25	87.46	733.41	1,000.00	66.92	1,798.26	20
J494	12.18	57.06	733.81	1,000.00	47.35	1,800.47	20
J382	2.83	89.07	733.58	1,000.00	68.64	1,806.65	20
J386	1.19	71.83	733.57	1,500.00	43.44	1,806.77	20
464	1.16	79.06	733.5	1,500.00	46.63	1,823.28	20
J388	0.76	87.89	733.42	1,000.00	68.2	1,824.29	20
J472	5.32	57.62	733.87	1,000.00	48.61	1,824.33	20
J480	1.05	70.89	733.72	1,000.00	57.71	1,834.15	20
462	1.73	79.41	733.6	1,000.00	63.24	1,834.21	20
461	0.93	72.80	733.6	1,000.00	59.12	1,845.22	20
J384	2.49	95.46	733.55	1,500.00	54.59	1,861.53	20
J366	7.91	93.89	734.34	1,000.00	74.57	1,861.83	20
J370	1.06	87.31	734.35	1,000.00	70.83	1,874.79	20
J462	1.78	67.39	733.74	1,500.00	46.81	1,881.92	20
469	1.21	95.10	733.42	1,000.00	75.36	1,888.69	20
J368	3.22	93.61	734.34	1,000.00	77.01	1,932.25	20
J90	0.6	89.52	733.51	1,500.00	58.12	1,940.50	20
J436	3.71	73.04	733.84	1,000.00	62.48	1,945.85	20
138	2.41	74.34	733.99	1,000.00	63.74	1,949.46	20
J478	2.23	72.88	733.76	1,500.00	53.04	1,958.49	20
J464	1.78	75.45	733.72	1,500.00	54.23	1,962.37	20
148	1.73	86.23	734.35	1,000.00	72.84	1,963.54	20
132	6	93.90	733.79	1,000.00	77.67	1,966.63	20
459	1.82	92.73	733.64	1,000.00	76.8	1,969.85	20
137	7.99	76.64	733.97	1,000.00	65.92	1,976.59	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2A - 12" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J476	0.67	78.83	733.71	1,000.00	67.34	1,981.00	20
136	2.75	82.15	733.91	1,000.00	70.13	1,984.46	20
463	2.03	92.66	733.53	1,500.00	62.2	1,986.76	20
152	2.11	86.75	734.07	1,000.00	73.81	1,990.67	20
J450	2.7	89.03	734.01	1,000.00	75.45	1,993.25	20
J376	1.49	86.71	734.06	1,000.00	73.88	1,993.59	20
142	1.78	79.57	734.01	1,000.00	68.7	1,994.51	20
135	2.4	79.12	733.91	1,000.00	68.24	1,994.95	20
134	4.7	76.75	733.82	1,000.00	66.35	1,995.88	20
151	0.7	82.05	734.01	1,000.00	70.73	2,002.89	20
140	0.99	82.06	734.01	1,000.00	70.89	2,009.11	20
139	1.55	83.08	734	1,000.00	71.75	2,014.01	20
1	1.1	84.60	733.68	1,000.00	72.92	2,037.87	20
J488	4.58	77.82	733.79	1,500.00	59.16	2,038.84	20
146	1.21	78.04	734.21	1,000.00	69.13	2,048.59	20
141	0.47	83.13	734.02	1,000.00	72.74	2,049.81	20
145	1.5	81.98	734.08	1,000.00	71.97	2,051.59	20
J558	12.58	84.78	733.69	1,500.00	62.44	2,054.55	20
144	0.56	83.54	734.05	1,000.00	73.34	2,061.08	20
J374	1.66	81.10	734.17	1,000.00	71.83	2,069.37	20
J434	0.66	83.63	733.81	1,500.00	64.24	2,084.24	20
128	0.69	85.37	733.8	1,500.00	66.46	2,112.55	20
J372	6.12	81.93	734.26	1,000.00	73.56	2,117.39	20
129	0.38	86.43	733.8	1,500.00	67.37	2,119.95	20
131	0.3	92.13	733.8	1,500.00	70.53	2,128.70	20
130	0.33	91.06	733.8	1,500.00	70.36	2,134.99	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2B - 10" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
J-29	0.93	63.83	733.23	1,000.00	15.11	942.01	20
J-30	0.88	67.27	733.23	1,000.00	17.43	971.03	20
476	0.97	60.41	733.28	1,000.00	21.86	1,022.35	20
J-34	0.47	58.48	733.28	1,000.00	22.09	1,024.08	20
J-33	1.87	73.63	733.26	1,000.00	23.59	1,030.96	20
J-31	0.46	66.60	733.23	1,000.00	24.42	1,037.94	20
J430	1.18	50.38	733.24	1,000.00	23.64	1,041.17	20
J392	2.27	68.38	733.26	1,000.00	25.43	1,045.91	20
J-32	2.03	56.42	733.26	1,000.00	25.52	1,053.89	20
J-26	0.81	60.23	733.22	1,000.00	26.75	1,059.99	20
J418	1.37	70.70	733.22	1,000.00	28.49	1,065.52	20
J426	0.92	62.14	733.22	1,000.00	28.37	1,071.59	20
J486	2.02	38.33	733.72	1,000.00	25.78	1,073.60	20
478	2.07	52.15	733.25	1,000.00	28.29	1,083.06	20
J420	1.69	76.01	733.22	1,000.00	33.31	1,096.21	20
J556	1.49	51.57	733.65	1,500.00	-32.38	1,105.61	20
493	5.35	76.89	733.22	1,500.00	-49.71	1,112.17	20
J482	1.61	44.87	733.65	1,000.00	30.53	1,116.57	20
482	0.83	60.94	733.23	1,000.00	33.37	1,117.05	20
J428	0.7	65.49	733.23	1,000.00	34.76	1,121.83	20
468	2.97	56.20	733.27	1,000.00	33.36	1,127.59	20
J396	1.36	65.42	733.25	1,000.00	37.92	1,152.07	20
485	2.44	84.20	733.22	1,000.00	43.02	1,159.96	20
J394	0.83	61.68	733.26	1,000.00	38.27	1,163.90	20
477	0.48	61.86	733.26	1,000.00	38.6	1,166.59	20
J422	2.17	85.83	733.22	1,000.00	45.18	1,174.20	20
J432	5.95	85.98	733.22	1,000.00	45.95	1,184.15	20
J474	6.51	46.47	733.72	1,000.00	36.21	1,187.46	20
491	0.28	71.75	733.23	1,000.00	43.81	1,193.84	20
J-27	6.33	98.06	733.22	1,000.00	50.79	1,197.32	20
487	3.84	97.89	733.22	1,000.00	51.16	1,198.04	20
J410	2.27	71.06	733.28	1,000.00	45.3	1,212.48	20
J468	0.73	51.95	733.69	1,000.00	40.15	1,213.96	20
J484	2.38	52.56	733.71	1,000.00	40.61	1,219.28	20
J408	1.1	77.11	733.28	1,000.00	48.83	1,228.84	20
143	1.87	68.49	733.89	1,000.00	46.55	1,229.44	20
J466	0.88	54.52	733.65	1,500.00	-11.28	1,231.58	20
475	0.85	74.12	733.28	1,000.00	48.18	1,231.80	20
J470	0.97	53.25	733.71	1,000.00	42	1,233.87	20
480	0.73	73.79	733.28	1,000.00	48.64	1,237.84	20
J406	0.81	79.26	733.28	1,000.00	50.44	1,238.18	20
472	0.78	73.78	733.28	1,000.00	48.85	1,240.28	20
J92	1.96	93.82	733.22	1,000.00	55.2	1,240.49	20
473	2.38	77.21	733.28	1,000.00	50.06	1,242.77	20
J490	3.22	56.67	733.69	1,500.00	-10.69	1,243.75	20
474	1.07	79.89	733.28	1,000.00	51.16	1,243.78	20
J402	1.3	75.00	733.28	1,000.00	49.91	1,248.00	20
J424	1.25	82.39	733.22	1,000.00	52.62	1,251.41	20
J414	0.65	75.19	733.28	1,000.00	51.02	1,259.11	20
488	0.49	81.02	733.23	1,000.00	52.97	1,259.25	20
J404	1.04	80.91	733.28	1,000.00	53.21	1,261.75	20
484	0.7	81.62	733.23	1,000.00	53.56	1,263.33	20
483	0.9	79.06	733.24	1,000.00	52.69	1,263.59	20
J400	1.74	76.74	733.28	1,000.00	51.9	1,264.13	20
467	1.68	71.85	733.29	1,000.00	50.78	1,270.93	20
486	0.42	85.01	733.23	1,000.00	55.71	1,273.31	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2B - 10" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
460	0.9	62.08	733.52	1,000.00	48.32	1,280.92	20
471	1.36	76.39	733.28	1,000.00	53.35	1,281.82	20
492	5.27	89.28	733.22	1,000.00	57.78	1,283.91	20
J492	0.92	60.65	733.63	1,500.00	-5.32	1,286.05	20
J398	2.73	83.63	733.25	1,000.00	56.29	1,286.85	20
481	1.06	80.35	733.28	1,000.00	55.32	1,287.50	20
J-28	0.57	86.27	733.23	1,000.00	57.64	1,289.34	20
466	1.94	72.94	733.3	1,000.00	52.68	1,289.45	20
J416	1.61	97.30	733.23	1,000.00	61.82	1,290.92	20
J494	12.18	57.01	733.7	1,000.00	46.53	1,291.04	20
J472	5.32	57.57	733.75	1,000.00	47.78	1,299.30	20
J124	6.95	71.94	733.35	1,000.00	53.2	1,305.13	20
490	0.67	89.88	733.23	1,000.00	60.86	1,309.63	20
489	0.59	89.92	733.23	1,000.00	60.92	1,310.09	20
J88	0.84	78.45	733.3	1,000.00	58.09	1,329.71	20
479	2.25	84.13	733.28	1,000.00	60.33	1,330.69	20
J380	0.83	73.57	733.49	1,000.00	57.15	1,341.14	20
J386	1.19	71.78	733.45	1,500.00	-0.02	1,341.90	20
465	2	79.60	733.32	1,000.00	59.78	1,346.61	20
J-35	0.92	86.74	733.39	1,500.00	-2.01	1,349.84	20
J480	1.05	70.84	733.6	1,000.00	56.89	1,352.44	20
150	6.3	91.03	734.22	1,000.00	65.53	1,354.18	20
J390	2.49	80.26	733.34	1,500.00	0.82	1,360.13	20
J462	1.78	67.34	733.62	1,500.00	3.35	1,360.23	20
461	0.93	72.75	733.49	1,000.00	58.29	1,362.74	20
464	1.16	79.01	733.39	1,500.00	3.17	1,372.88	20
J412	1.99	90.59	733.29	1,000.00	66.82	1,376.71	20
462	1.73	79.36	733.49	1,000.00	62.42	1,380.76	20
470	1.25	87.41	733.29	1,000.00	66.1	1,384.97	20
149	1.59	89.01	734.23	1,000.00	67.91	1,389.18	20
J382	2.83	89.02	733.46	1,000.00	67.82	1,396.42	20
J388	0.76	87.84	733.3	1,000.00	67.38	1,398.93	20
J436	3.71	72.99	733.72	1,000.00	61.66	1,411.52	20
J478	2.23	72.83	733.64	1,500.00	9.58	1,414.22	20
138	2.41	74.28	733.87	1,000.00	62.92	1,418.65	20
J464	1.78	75.40	733.6	1,500.00	10.77	1,424.99	20
J370	1.06	87.26	734.23	1,000.00	70.01	1,428.65	20
J384	2.49	95.41	733.43	1,500.00	11.13	1,440.86	20
137	7.99	76.59	733.85	1,000.00	65.1	1,441.85	20
J366	7.91	93.84	734.22	1,000.00	73.75	1,443.78	20
J476	0.67	78.78	733.59	1,000.00	66.52	1,444.75	20
134	4.7	76.70	733.71	1,000.00	65.53	1,447.06	20
469	1.21	95.05	733.3	1,000.00	74.54	1,451.12	20
135	2.4	79.07	733.79	1,000.00	67.41	1,455.10	20
142	1.78	79.52	733.9	1,000.00	67.87	1,457.03	20
J90	0.6	89.47	733.4	1,500.00	14.65	1,460.37	20
136	2.75	82.10	733.79	1,000.00	69.31	1,461.61	20
148	1.73	86.18	734.23	1,000.00	72.01	1,467.45	20
J488	4.58	77.77	733.68	1,500.00	15.7	1,468.31	20
151	0.7	82.00	733.89	1,000.00	69.91	1,468.93	20
140	0.99	82.00	733.89	1,000.00	70.07	1,471.80	20
146	1.21	77.98	734.09	1,000.00	68.3	1,474.91	20
J368	3.22	93.56	734.22	1,000.00	76.18	1,475.69	20
139	1.55	83.03	733.89	1,000.00	70.93	1,477.89	20
152	2.11	86.70	733.95	1,000.00	72.99	1,480.74	20
J376	1.49	86.66	733.94	1,000.00	73.06	1,481.58	20

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX B
LAKE TULLOCH INTERTIE
ALTERNATIVE 2B - 10" PVC TRANSMISSION MAIN

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)
459	1.82	92.67	733.52	1,000.00	75.98	1,486.07	20
J450	2.7	88.98	733.89	1,000.00	74.63	1,489.29	20
1	1.1	84.55	733.56	1,000.00	72.09	1,489.85	20
145	1.5	81.93	733.96	1,000.00	71.14	1,490.42	20
132	6	93.84	733.68	1,000.00	76.85	1,491.67	20
463	2.03	92.61	733.41	1,500.00	18.74	1,492.50	20
141	0.47	83.08	733.9	1,000.00	71.91	1,492.90	20
J374	1.66	81.05	734.05	1,000.00	71.01	1,495.25	20
144	0.56	83.49	733.94	1,000.00	72.52	1,499.44	20
J558	12.58	84.73	733.57	1,500.00	18.98	1,504.30	20
J434	0.66	83.58	733.69	1,500.00	20.78	1,507.11	20
147	4.48	79.65	734.24	1,000.00	71.68	1,521.51	20
J372	6.12	81.88	734.14	1,000.00	72.74	1,521.76	20
128	0.69	85.32	733.68	1,500.00	23	1,525.59	20
129	0.38	86.38	733.68	1,500.00	23.91	1,532.71	20
126	4	89.10	733.68	1,500.00	25.94	1,552.57	20
130	0.33	91.01	733.68	1,500.00	26.9	1,556.11	20
131	0.3	92.08	733.68	1,500.00	27.07	1,556.94	20
458	1.58	97.51	733.54	1,000.00	84.58	1,585.01	20
124	0.19	96.64	733.68	1,000.00	84.97	1,596.53	20
125	0.3	97.28	733.68	1,000.00	85.49	1,599.46	20
123	0.4	101.43	733.68	1,000.00	89.19	1,623.05	20

Appendix C

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX C
LAKE TULLOCH EMERGENCY INTERTIE
12" PVC TRANSMISSION MAIN

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL ROUNDED
	A. Mobilization and Demobilization				
1	Mobilization & Demobilization (5%)	1	LS	5%	$264,958.50
2	Establish Site Access and Staging Areas/BMP's	1	LS	$20,000.00	$20,000.00
3	Temporary Construction Facilities	1	LS	$10,000.00	$10,000.00
4	Temporary Construction Fencing	1	LS	$5,000.00	$5,000.00
	Mobilization and Demobilization Subtotal				**$299,958.50**
	B. Traffic Control				
5	Traffic Control	70	Day	$6,500.00	$455,000.00
	Traffic Control Subtotal				**$455,000.00**
	C. PVC Distribution Main				
6	12" PVC DR 14	15,320	LF	$250.00	$3,830,000.00
7	10" PVC DR 14	700	LF	$230.00	$161,000.00
8	8" PVC DR 14	1,400	LF	$210.00	$294,000.00
	Tranmission Main Subtotal				**$3,830,000.00**
	D. PRV Station				
9	Pressure Reducing Valves: (1) 6", (1) 4", and (1) 2"	1	LS	$22,900.00	$22,900.00
10	Concrete Vault & Access Hatch	1	LS	$14,200.00	$14,200.00
11	PRV Station GV's: (2) 6", (2) 4", and (1) 2" per CCWD W13	1	LS	$5,000.00	$5,000.00
	PRV Station Subtotal				**$42,100.00**
	E. Inline Valves				
10	12" Gate Valve	8	EA	$6,800.00	$54,400.00
11	10" Gate Valve	1	EA	$3,000.00	$3,000.00
12	8" Gate Valve	2	EA	$2,300.00	$4,600.00
13	3" Air & Vacuum Valve Assembly with 4" GV per CCWD W05	8	EA	$2,700.00	$21,600.00
	Inline Valve Subtotal				**$83,600.00**
	F. Repaving				
14	Asphalt repaving one lane of O'Byrnes Ferry Road	65,325	SF	$10.00	$653,300.00
15	2" Grind and Overlay	156,780	SF	$1.50	$235,170.00
	Repaving Subtotal				**$888,470.00**
				Base Construction Subtotal :	**$5,599,200.00**
				30% Project Contingency :	**$1,679,800.00**
				Estimated Project Cost :	**$7,279,000.00**

COPPER COVE WATER SYSTEM IMPROVEMENTS PROJECT
PHASE 3 PRELIMINARY DESIGN REPORT
APPENDIX C
LAKE TULLOCH EMERGENCY INTERTIE
16" PVC TRANSMISSION MAIN

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL ROUNDED
	A. Mobilization and Demobilization				
1	Mobilization & Demobilization (5%)	1	LS	5%	$307,338.50
2	Establish Site Access and Staging Areas/BMP's	1	LS	$20,000.00	$20,000.00
3	Temporary Construction Facilities	1	LS	$10,000.00	$10,000.00
4	Temporary Construction Fencing	1	LS	$5,000.00	$5,000.00
	Mobilization and Demobilization Subtotal				**$342,338.50**
	B. Traffic Control				
5	Traffic Control	70	Day	$6,500.00	$455,000.00
	Traffic Control Subtotal				**$455,000.00**
	C. PVC Distribution Main				
6	16" PVC DR 14	15,320	LF	$300.00	$4,596,000.00
7	10" PVC DR 14	700	LF	$230.00	$161,000.00
8	8" PVC DR 14	1,400	LF	$210.00	$294,000.00
	Tranmission Main Subtotal				**$4,596,000.00**
	D. PRV Station				
9	Pressure Reducing Valves: (1) 6", (1) 4", and (1) 2"	1	LS	$22,900.00	$22,900.00
10	Concrete Vault & Access Hatch	1	LS	$14,200.00	$14,200.00
11	PRV Station GV's: (2) 6", (2) 4", and (1) 2" per CCWD W13	1	LS	$5,000.00	$5,000.00
	PRV Station Subtotal				**$42,100.00**
	E. Inline Valves				
10	16" Butterfly Valves	8	EA	$17,000.00	$136,000.00
11	10" Gate Valve	1	EA	$3,000.00	$3,000.00
12	8" Gate Valve	2	EA	$2,300.00	$4,600.00
13	3" Air & Vacuum Valve Assembly with 4" GV per CCWD W05	8	EA	$2,700.00	$21,600.00
	Inline Valve Subtotal				**$165,200.00**
	F. Repaving				
14	Asphalt repaving one lane of O'Byrnes Ferry Road	65,325	SF	$10.00	$653,300.00
15	2" Grind and Overlay	156,780	SF	$1.50	$235,170.00
	Repaving Subtotal				**$888,470.00**
				Base Construction Subtotal :	**$6,489,200.00**
				30% Project Contingency :	**$1,946,800.00**
				Estimated Project Cost :	**$8,436,000.00**

May 20, 2024

Kevin Williams
Calaveras County Water District
120 Toma Court
San Andreas, CA 95249

Subject: Request for Budget Amendment for Copper Cove Water System Improvements – Lake Tulloch Intertie Project

Dear Kevin,

We are pleased to submit to you our amendment request to support the Lake Tulloch Intertie Project. The original proposal only scoped preliminary design for the Lake Tulloch Intertie project, which was completed on May 6, 2024 under Task 5. Approximately 750 domestic water customers on the east side of Lake Tulloch are provided service via a single 10-inch distribution main that crosses underneath the bottom of Lake Tulloch. In the event this distribution main were to fail, the entire community on the east side of Lake Tulloch would be left without a water supply. The Lake Tulloch Intertie will serve as the primary water supply to these customers and the current distribution main as an emergency back-up supply minimizing the risk of a catastrophic failure. This includes 15,300 linear feet of 12-inch transmission main along O'Byrnes Ferry Road from Cosmic Court to Conner Estates Drive. The additional design services for the Lake Tulloch Intertie project that include design and bid support are summarized below:

Task 10 – Environmental/CEQA – Programmatic Approach

10.8 Categorical Exemption for Transmission Main - Dewberry will complete a Notice of Exemption (NOE) form that can be accessed on the Governor's Office of Planning and Research, State Clearinghouse website. Dewberry will also prepare a CE Memorandum to support the NOE, that will address the exemption criteria for installation of the water main. The draft NOE and CE Memorandum will be submitted to the District in electronic format for review and comment. Upon resolution of any comments, Dewberry will prepare the final NOE and CE Memorandum and resubmit to the District. Following the District's approval, Dewberry will file the NOE at the County Clerk's Office and pay the $50 filing fee and submit the NOE to the State Clearinghouse.

Task 15 – Lake Tulloch Intertie Design

15.1 50% Design Documents – PBI will develop 50% design drawings, specifications, and estimate of probable construction cost to support the Lake Tulloch Intertie Project. The contract documents will include up to 23 civil drawings and technical specifications. This task also includes topographic survey performed by PSOMAS and geotechnical investigation performed by Mid Pacific Engineering.

15.2 90% Design Documents – PBI will incorporate the District's comments from the 50% design and develop 90% design documents.

15.3 100% Design Documents – PBI will incorporate the District's comments from the 90% design and develop 100% design documents.

15.4 Bid Set Documents – PBI will incorporate the District's comments from the 100%

design and develop Final design documents.

Deliverables:

- A complete set of plan and profile drawings, tie-in details, and miscellaneous details
- Technical Specifications
- Engineer's probable construction cost estimate
- Response to comments table identifying how each comment was addressed and where each revision is located in the engineering documents
- AutoCAD Civil 3D (2021) .dwg file containing the base map and legend
- One (1) PDF copy of the CAD drawing
- Draft/final geotechnical report

Assumptions:

- Project is CE eleigible
- PBI understand that the District uses the Engineer's Joint Contract Document Committee (EJCDC) boilerplate front end contact documents and bid forms
- The format for the construction cost estimates will be consistent with the bid schedule to be utilized
- Lump sum items on the bid schedule will be broken down as would be required for a contractor for their Schedule of Values
- Bid support and construction services are not included in this scope
- Project Drawings will be 40 scale and furnished to the District in Portable Document Format (PDF) file format for reproduction as both 11"x17" (ANSI C) and 22"x34" (ANSI D) paper size.
- Sheet list includes three (3) general sheets and twenty (20) civil sheets
- Final drawings will be furnished in Autodesk AutoCAD format in addition to PDF file format.
- PBI to provide response to comments to District for each deliverable
- Project horizontal datum shall be NAD 83 California State Plane Zone III and vertical datum shall be NAVD88 and based on nearby found Calaveras County or NGS benchmarks, US Survey Feet.
- Scope includes aerial photography of project limits at scale of 1"=40' with 1-foot contours and aerial mapping
- Rights-of-way withing mapping limits to be included
- The following services are excluded from the survey scope of work of this proposal:
    - Boundary Dispute Resolution
    - Easement resolution or staking of easements
    - Ground Penetrating Radar (GPR) or Subsurface Exploration (These services can be provided upon request)

  - USA Notification
  - Traffic control and Lane Closure
- Geotechnical analysis and reporting to be completed within 4 weeks of field investigation
- Design to be completed within 9 months of notice to proceed

Task 16 – Lake Tulloch Intertie Bid Support Services

16.1 Pre-Bid Meeting - PBI will facilitate and develop agenda and sign-in sheet for pre-bid meeting.

16.2 Bid Addenda (Up to 3) – PBI will prepare written responses to answer bidder's requests for information and to make clarifications and prepare written addenda to address changes and clarifications to the drawings, bid forms, project manual and technical specifications.

16.3 Conformed Documents – PBI will prepare conformed plans and specifications, in response to changes based on addenda prepared for the bid documents.

16.4 Bid Evaluation – PBI will review the bids and make a recommendation for award, addressing any significant discrepancies between the final engineer's opinion of probable construction costs and the lowest responsive, responsible bidder's bid.

Deliverables: Addenda, Conformed Plans and Specifications delivered electronically

Assumptions:

- The District will advertise and circulate the bid documents for public bidding of the project for construction.
- Includes up to 3 bid addenda

The estimated cost of these services is detailed in the Estimated Work Effort and Cost attachment. Services will be provided on a time and materials basis. We look forward to providing continued support for the Project. If you have any questions or desire any additional information, please do not hesitate to contact me at (916) 608-2212.

Sincerely,

Karl Brustad, PE, MBA
Principal

Ashley Smith, PE
Project Manager

Attachments:

Estimated Work Effort and Cost
2024 Standard Rate Schedule

Estimated Work Effort and Cost
Calaveras County Water District - Copper Cove Water System Improvements Amendment Request

Task No.	Task Description	Principal in Charge	Senior Engineer 3 - QA/QC	Project Manager 2	Senior Engineer 1	Staff Engineer 2	Staff Engineer 1	Technician 2	Administrative 4	PBI Labor	Total PBI Labor ($)	PSOMAS (Survey)	Dewberry (Environmental)	MPE (Geotech)	PBI Expenses ($)	Total Cost ($)
	2024 Rates	$275.00	$ 250.00	$ 230.00	$ 210.00	$ 160.00	$ 140.00	$ 120.00	$ 115.00							
Task 10 - Environmental/CEQA																
10.8	Categorical Exemption for Transmission Main	2		4		4				10	$2,110		$6,265		$211	$8,586
	Subtotal Task 10	**2**	**0**	**4**	**0**	**4**	**0**	**0**	**0**	**10**	**$2,110**	**$0**	**$6,265**	**$0**	**$211**	**$8,586**
Task 15 - Lake Tulloch Intertie Design																
15.1	50% Design Documents	10	6	22	6	39	57	29		169	$28,270	$86,664		$61,600	$2,827	$179,361
15.2	90% Design Documents	20	17	49	16	89	133	39		363	$61,920				$6,192	$68,112
15.3	100% Design Documents	14	12	30	10	57	75	20		218	$37,870				$3,787	$41,657
15.4	Bid Set	12	10	26	10	49	67	10		184	$32,300				$3,230	$35,530
	Subtotal Task 15	**56**	**45**	**127**	**42**	**234**	**332**	**98**	**0**	**934**	**$160,360**	**$86,664**	**$0**	**$61,600**	**$16,036**	**$324,660**
Task 16 - Lake Tulloch Intertie Bid Support Services																
16.1	Pre-Bid Meeting	4		6	6				2	18	$3,970				$397	$4,367
16.2	Bid Addenda (Up to 3)	4		8	16	24	32	12		96	$16,060				$1,606	$17,666
16.3	Conformed Documents	2	4	4	4	4	8	10	2	38	$6,500				$650	$7,150
16.4	Bid Evaluation	4		4		8				16	$3,300				$330	$3,630
	Subtotal Task 16	**14**	**4**	**22**	**26**	**36**	**40**	**22**	**4**	**168**	**$29,830**	**$0**	**$0**	**$0**	**$2,983**	**$32,813**
	COLUMN TOTALS	**72**	**49**	**153**	**68**	**274**	**372**	**120**	**4**	**1,112**	**$192,300**	**$86,664**	**$6,265**	**$61,600**	**$19,230**	**$366,058**

TOTAL COST	$366,058

PBI ENGINEERING CONSULTING™
a verdantas company

2024 STANDARD RATE SCHEDULE *

Position	Description	Hourly Billing Rate
E9	Principal Engineer	$275
E8	Senior Engineer 3 Project Manager 3	$250
E7	Senior Engineer 2 Project Manager 2	$230
E6	Senior Engineer 1 Project Manager 1	$210
E5	Project Engineer 3	$200
E4	Project Engineer 2	$190
E3	Project Engineer 1	$180
E2	Staff Engineer 2	$160
E1	Staff Engineer 1	$140
T4	Technician 4	$150
T3	Technician 3	$140
T2	Technician 2	$120
T1	Technician 1	$110
A4	Administrative 4	$115
A3	Administrative 3	$100
A2	Administrative 2	$90
A1	Administrative 1	$75

Expenses

- **At cost plus 10% for outside printing, plotting, copying, travel, subconsultants, and outside services and charges**
- **At 5% of Labor for in-house expenses including telephone, computer, and incidental copying and printing**
- **Auto mileage per current Federal Rates**

*** Rates will be modified January 1 of each year.**

80 Blue Ravine Rd, Suite 280, Folsom, CA 95630
916-608-2212
www.pbiengineering.com

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Sam Singh, Senior Engineering Technician
Kevin Williams, Senior Civil Engineer

SUBJECT: Discussion/Action Regarding Awarding of Engineering and Design Contract for the Huckleberry Lift Station Improvement Project, CIP#15092

RECOMMENDED ACTION:

Motion:_____/_____ Adopting Resolution No. 2024-____ Accepting Proposal and Authorizing the General Manager to Enter into an Agreement with Lumos and Associates Consulting Engineers for Design and Engineering Services Related to the Huckleberry Lift Station Improvement Project, CIP #15092

SUMMARY:

The District issued a Request for Proposals (RFP) on March 11, 2024 for design services for the Huckleberry Lift Station Improvement Project. A copy of the RFP is attached which includes a project description and scope of work. The District would like to have the design completed by April 2025, in order to have the Project publicly bid in July 2025. The District plans to solicit proposals for environmental documentation separately once the Pre-Design report is completed.

On the proposal due date May 14, 2024, the District received proposals from six (6) different engineering firms as tabulated below. Staff members including the District Engineer, Director of Operations and Senior Engineer reviewed and evaluated the proposals for considering various criteria such as qualifications and experience, content and presentation of the proposal and approach to work, completeness/variances in the proposed scope of work, allocation of staff hours to each task, general sense of cost effectiveness and value, subconsultant scope and fees, potential scheduling issues and ability to deliver work within allowed timeframe, team organization and focus on key project issues, local representation and proximity to the project and prior performance on other District projects.

RANK	FIRM	FEE
1	Blackwater	$502,856
2	**Lumos and Associates**	**$278,860**
3	PBI, Inc	$408,511
4	Sandis	$314,195
5	WGA	$369,315
6	Coleman	$655,546

Upon review and discussion among staff members, similar determinations were made regarding the top three (3) proposals including Blackwater, Lumos and Associates and PBI. For professional services, the District is not obligated to make an award based on the lowest cost and can consider other criteria in making a selection. The top proposals were further compared concerning firm qualifications and experience, completeness of proposed scope of work and overall value. The top two proposals were very close in rankings and the second firm Lumos and Associates overall cost was substantially less than Blackwater, staff believes that the proposal from Lumos and Associates provides best overall value for the District. Additionally, Lumos and Associates provides in-house survey, and geotechnical services which provides more efficiency and less remote coordination.

The recommendation to the Board is to award a design contract to Lumos Engineers according to the submitted proposal and authorize the General Manager to enter into a Professional Services Agreement with Lumos Engineers in the amount of $278,860 for engineering and design services for the Huckleberry Lift Station Improvement, CIP 15092.

FINANCIAL CONSIDERATIONS:

The total cost of the Huckleberry List Station Improvement Project is estimated to be $2.3 million. The design portion of the project ($278,860) is included in the FY 2024-25 Wastewater CIP Budget and is funded by the La Contenta Expansion Fund (Fund 564) and the Wastewater Capital R&R Fund (Fund 135).

STRATEGIC PLAN:

The 2021-2026+ CCWD Strategic Plan (Strategic Plan, adopted April 28, 2021 per Board of Directors' Resolution No. 2021-24, outlines several Goals and Objectives (Objectives)) meant to identify organizational opportunities and measure CCWD's results over time. Consistent with the Strategic Plan, this Agenda Item supports the following objectives:

FR-01 Develop and commit to a long-term financial strategy and framework to fund the projects identified in the Capital Improvement Plan (CIP) and other longterm District obligations and needs.

Oi-01 Ensure out infrastructure is operated and maintained to fully realize its expected life span.

OI-02 Implement preventive, predictive, and corrective maintenance plans to ensure safe and reliable operations.

a. Continue to modernize wastewater treatment and recycled water delivery systems to increase the use of recycled water, which decreases the demand for raw water.

b. Develop a short, mid- and long-term approach to project implementation that aligns with value added, optimizes the budget, and is paced for successful outcomes.

Attachments:

1) *Resolution No. 2024-__ Awarding of Engineering and Design Contract for the Huckleberry Lift Station Improvement Project, CIP#15092*
2) *Lumos Proposal and Fee*

RESOLUTION NO. 2024-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

APPROVING/AUTHORIZING DESIGN CONTRACT FOR REPLACEMENT OF THE HUCKLEBERRY SEWER LIFT STATION IN THE LA CONTENTA SERVICE AREA

WHEREAS, the District has identified a need to replace the existing Huckleberry Sewer Lift Station due to operational and capacity issues; and

WHEREAS, upon issuing a Request for Proposal (RFP) on March 11, 2024 for engineering and design services for the subject project and conducting job walk of the project area with prospective consulting firms interested in submitting proposals, the District received six (6) proposals as of the due date of May 14, 2024; and

WHEREAS, the Engineering and Operations staff reviewed all proposals considering various criteria such as qualifications and experience, content and presentation of the proposal and approach to work, completeness/variances in the proposed scope of work, allocation of staff hours to each task, general sense of cost effectiveness and value, subconsultant scope and fees, potential scheduling issues and ability to deliver work within allowed timeframe, team organization and focus on key project issues, local representation and proximity to the project and prior performance on other District projects, and among the proposals staff recommends the Award of the contract for engineering and design services to Lumos and Associates Engineers; and

WHEREAS, the total project cost is estimated to be $2.3 million. Funding for the design phase of the project is included in the FY 2024-25 Wastewater CIP Budget.

BE IT RESOLVED, the CALAVERAS COUNTY WATER DISTRICT Board of Directors hereby approves the Proposal submitted by Lumos and Associate Engineers, Inc, for Engineering Services for, Huckleberry Lift Station Replacement and authorizes the General Manager to execute said amendment and contract adjustments not to exceed $278,860 as proposed in the attached Proposal.

PASSED AND ADOPTED this 12th day of June, 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Russ Thomas, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock, Clerk to the Board

LUMOS & ASSOCIATES

COST PROPOSAL

PREPARED FOR CALAVERAS COUNTY WATER DISTRICT CIP 15092

DESIGN AND ENGINEERING SERVICES FOR THE HUCKLEBERRY REPLACEMENT PUMP STATION PROJECT

San Andreas, California

MAY 14, 2024

Cost Proposal

	Aaron Brusatori Project Manager	**Jonathan Lesperance** QA/QC	**Mara Quiroga Dan Newton** Sr. Engineer	**Manish Khanal** Sr. Structural Engineer	**Project Engineer**	**Designer**	**Dugan Hadler** Electrical Engineering	**Andrew Chafer** Surveyor	**Mitch Burns** Geotechnical Engineer	**Total by Task**
Task 1 Project Management	$24,400 (80 hrs)									**$24,400** (80 hrs)
Task 2 Project Design Report		$2,400 (8 hrs)	$9,400 (40 hrs)	$1,880 (8 hrs)	$5,160 (24 hrs)	$6,880 (32 hrs)	$4,250 (19 hrs)			**$30,010** (131 hrs)
Task 3 Topographical Survey								$18,000 (57 hrs)		**$18,000** (57 hrs)
Task 4 Geotechnical Investigation									$25,000 (63 hrs)	**$25,000** (63 hrs)
Task 5 50% Design		$2,400 (8 hrs)	$9,400 (40 hrs)	$9,400 (40 hrs)	$8,600 (40 hrs)	$17,200 (80 hrs)	$10,300 (31 hrs)			**$57,300** (239 hrs)
Task 6 90% Design		$2,400 (8 hrs)	$9,400 (40 hrs)	$7,520 (32 hrs)	$8,600 (40 hrs)	$17,200 (80 hrs)				**$45,120** (200 hrs)
Task 7 100% Design		$1,220 (4 hrs)	$5,640 (24 hrs)	$1,880 (8 hrs)	$5,160 (24 hrs)	$8,600 (40 hrs)	$10,200 (46 hrs)			**$32,700** (146 hrs)
Task 8 Bid Ready Documents		$610 (2 hrs)	$1,880 (8 hrs)		$1,720 (8 hrs)	$5,160 (24 hrs)	$2,200 (10 hrs)			**$11,570** (52 hrs)
Task 9 Bidding Assistance		$610 (2 hrs)	$5,640 (24 hrs)		$1,720 (8 hrs)					**$7,970** (34 hrs)
Task 10 Services During Construction		$1,220 (4 hrs)	$5,640 (24 hrs)	$1,880 (8 hrs)	$5,160 (24 hrs)		$4,050 (18 hrs)			**$17,950** (78 hrs)
Task 11 Record Drawings			$1,880 (8 hrs)		$1,720 (8 hrs)	$5,160 (24 hrs)				**$8,760** (40 hrs)
Total Cost	**$24,400** (80 hrs)	**$10,980** (36 hrs)	**$48,880** (208 hrs)	**$22,560** (96 hrs)	**$37,840** (176 hrs)	**$60,200** (280 hrs)	**$31,000** (124 hrs)	**$18,000** (57 hrs)	**$25,000** (63 hrs)	**$278,860** (1,120 hrs)

LUMOS & ASSOCIATES

PREPARED FOR CALAVERAS COUNTY WATER DISTRICT CIP 15092

DESIGN AND ENGINEERING SERVICES FOR THE HUCKLEBERRY REPLACEMENT PUMP STATION PROJECT

San Andreas, California

MAY 14, 2024

LUMOS & ASSOCIATES

Carson City • El Dorado Hills • Fallon • Lake Tahoe • Reno

www.LumosInc.com

El Dorado Hills
3840 El Dorado Hills Boulevard, Suite 301
El Dorado Hills, CA 95762
916.980.8228

May 14, 2024

Kevin Williams
Senior Civil Engineer
Calaveras County Water District
120 Toma Court
San Andreas, California 95249

Subject: Design and Engineering Services for the Huckleberry Replacement Pump Station Project

Dear Mr. Kevin Williams and Members of the Selection Committee:

The Huckleberry Lift Station is one of, if not the most critical wastewater components in the Calaveras County Water District's (District) La Contenta service area. The lift station is located in an environmentally sensitive location next to Cosgrove Creek and is the main source of influent pumping to the La Contenta Wastewater Treatment Facility. The original station is now over 30 years old and requires replacement. Due to its critical nature, the existing lift station must remain in place and operational while the replacement station is constructed. Complicated projects like these require a dedicated team of technical experts that can communicate effectively and implement a winning design strategy for successful construction and operation of the new lift station for decades to come.

Lumos & Associates has assembled a team of such experts to provide the District with a successful replacement of the Huckleberry Lift Station. Our design philosophy, much like our company culture, is based upon collaboration. Our team will engage early and often with District engineering and operations staff to build rapport and earn trust, while establishing the District's priorities and developing the required outcomes that will define success for the project. Lumos previously demonstrated this proven strategy of collaboration on the prior Sheep Ranch Water System Feasibility Project.

Our team will be led by **Aaron Brusatori, P.E.**, as project manager out of our El Dorado Hills office. Aaron has an established rapport with District staff and lives just 35 minutes away from the project site. He will provide boots on the ground involvement, serving as the District's primary point of contact. Leading the design will be **Mara Quiroga, P.E.**, who is a regionally recognized lift station expert. Mara has completed several lift station projects that successfully addressed many of the same operational challenges identified in our Project Overview section, especially the Dakota and Dermody Lift Stations that Mara designed for the City of Reno. I will personally be providing QA/QC of the design process and deliverables, ensuring that Lumos continues to meet and exceed the District's expectations. Survey will be led by **Andrew Chafer, L.S., CFedS**, also hailing from our El Dorado Hills office. With the exception of electrical engineering, all design disciplines are in-house, which provides the District an efficient team and cost effective design. For electrical engineering we are partnering with one of our preferred and trusted design partners — **PK Electrical**.

If you have any questions, please do not hesitate to contact me at 916.980.8228 or via email at jlesperance@LumosInc.com.

Sincerely,

Jonathan Lesperance, P.E.
Engineering Group Manager

Section A | **Project Overview**

Overview

The Huckleberry Lift Station (HLS) is the main lift station for the Calaveras County Water District's (CCWD) La Contenta wastewater system located in Valley Springs, California. All wastewater treated at the existing La Contenta Wastewater Treatment Facility (LCWWTF) is conveyed by the HLS, making HLS one of, if not the most significant facilities within the La Contenta system. Currently, the HLS has several operational challenges and deficiencies as identified in the 2018 La Contenta Wastewater Master Plan (LCWWMP). CCWD wishes to address as many of these challenges as possible with a cost effective and operationally efficient approach via the Huckleberry Replacement Pump Station Project. Our understanding of these challenges, as well as potential opportunities, are described below.

CCWD intends to construct a new submersible lift station located on the existing site under this project. The new lift station will include dual pumping systems for high and low flow scenarios with redundancy. Other project components include the demolition of the existing CMU structure, a new CMU electrical building with electrical utility upgrades, utility and yard piping improvements, flow meter upgrades, and site improvements including flood mitigation.

As a guiding principle, Lumos understands that CCWD staff requires the existing lift station to remain in operation throughout the project duration until the new pump station is operational.

Challenges, Deficiencies, and Opportunities

1 | Flooding & Inflow and Infiltration (I&I)

Flooding is a major concern for the successful operation of HLS. While infrequent, significant precipitation events can lead to overbank flooding in Cosgrove Creek, which borders the western side of the HLS property. The southern portion of the property has been mapped by FEMA as a special flood hazard area (SFHA), including both the 1% annual chance flood hazard (100-year) and the 0.2% annual chance flood hazard (500-year). While the mapped floodplain does not directly encroach on the lift station facility, vegetation and debris within Cosgrove Creek can cause floodwater to back up and extensively inundate the site. CCWD staff have documented instances where the current lift station building was submerged by several inches of floodwater. This occurred during a major rainfall event in January 2017, which was part of one of the wettest winters on record.

I&I is also an operational challenge experienced at the HLS, and the 2018 LCWWMP estimated that I&I may account for as much as 24% of the total annual wastewater flow. CCWD staff presently report that

peak flows to the site are as high as 1,000 GPM (higher than the 655 GPM estimated in the LCWWMP) due to increased I&I in the collection system. While addressing indirect I&I within the collection area is beyond the scope of this project, direct I&I resulting from flood inundation can be mitigated by design modifications to the existing site. Opportunities to mitigate flooding and resultant I&I could include implementation of a flood barrier wall or limited site grading to elevate just the new lift station and electrical building above the anticipated flood level on the site.

2 | Operational and Emergency Storage

Presently the HLS has an operational storage of approximately 3.2K gallons and a total storage of approximately 6.9K gallons, providing 3.7K gallons of emergency storage. Conventional lift station design standards recommend calculating the operational volume, or minimum volume, during periods where inflow is half of the pump capacity. Under current conditions, a single pump has a capacity of 870 GPM, which would result in a recommended operational capacity of 2.1K gallons, assuming six (6) pump starts per hour. With both pumps running at a combined capacity of 1,300 GPM, an operational capacity of 3.2K gallons is recommended, which is achieved by the existing wet well. While CCWD standards preclude the sole reliance on emergency storage at HLS (that is, the station must also be equipped with backup power), an emergency storage volume of up to four (4) hours of peak wet weather flow (PWWF) is an established standard. This would result in an emergency storage volume of 157K gallons at the station's PWWF of 655 GPM, which is neither practical nor feasible at the site. As a result, the project will need to establish a practical emergency storage volume that balances risk, response time, and project cost. One cost saving opportunity that will increase emergency storage at the site is to keep the existing wet well online as standby emergency storage. This also offers the unique opportunity of a convenient location for mobilizing emergency bypass pumps in the event of station failure in the future. Based upon this opportunity, selective demolition of the existing building while leaving the wet well in place warrants additional consideration.

3 | Pulsing to the WWTP

Presently, at a capacity of 870 GPM, the existing 88 HP pumps at HLS are oversized for the average dry weather flow (ADWF) of 0.17 MGD (118 GPM). This results in frequent pump start/stop operations that produce slugs of wastewater being "pulsed" to the LCWWTF. Pulsing can be mitigated with equalization storage facilities. Proposed improvements to the LCWWTF will help to address pulsing issues by adding a redundant treatment pond, but it is also advantageous to address at HLS. Pulsing can be addressed at HLS by better matching a portion of the HLS pumping system to ADWF via smaller capacity pumps. Lumos has identified multiple opportunities to implement better matched pumps in a new wet well to mitigate this issue while not sacrificing emergency capacity and cleansing velocities afforded by larger pumps. The large pumps can be co-located in the new wet well or potentially remain in the existing wet well as a cost saving opportunity.

4 | Oversized Force Main

Currently HLS pumps to LCWWTF via a 12-inch diameter force main. The static lift from HLS to LCWWTF is approximately 190 feet, with the pump duty point operating at a total dynamic head (TDH) of between 200 and 220 feet. This results in an imbalanced system curve, with static lift comprising 85-95% of the TDH. Modern solids handling pumps tend to be high suction energy pumps with large impeller eyes that are prone to operational challenges such as suction and/or discharge circulation when pumping in systems where static head is a major portion of the overall pump TDH. This may be more pronounced with the smaller jockey pumps as minor changes in head pressure could result in drastic shifts in capacities. While there are opportunities to reduce the force main diameter via slip-lining, this is anticipated to be prohibitively costly and beyond the scope of the project. As a result, selection of the most appropriate pumps will be the critical design component of this project, and Lumos excels in selecting specialty pumps for challenging situations, as described in our select project experience for the City of Reno's Dakota and Dermody lift stations.

Similarly, industry standards recommend a flushing velocity of at least two (2) to three (3) feet per second (FPS) for lift station design. This would require a pump flow rate of between 705 and 1060 GPM, respectively. Since cleansing velocities may lead to pulses at the treatment plant, Lumos will collaborate with CCWD operational staff to establish project goals that balance

force main maintenance with minimizing impacts on the LCWWTP. Lumos has addressed this challenge in other lift station designs including the Mark IV Lift Station No. 3 described in our select project experience.

5 | Odor Control

Fortunately, the HLS facility has not had significant odor complaints to date. CCWD recognizes the potential for odor generation at pumping facilities, especially those located within residential areas like the HLS, and wishes to address and mitigate odor potential proactively. Submersible stations offer several opportunities for odor control facilities, including passive and active systems. Lumos understands that CCWD wishes to implement an active odor control system at the new lift station and Lumos will collaboratively explore these opportunities with CCWD staff early in the design process just as we did on the Sheep Ranch Project.

6 | Construction Phasing

HLS is the system's main pump station and conveys all of the flow treated at the LCWWTF. As a result, this facility must remain in place and operational during construction of the new lift station. Lumos understands that proposed improvements, including the new submersible station and electrical building, will be built, tested, and commissioned prior to decommissioning the existing lift station. This will require close coordination with CCWD staff to collaboratively develop a comprehensive construction phasing plan. Fortunately, the existing site and underground utility configuration lend themselves to completing the proposed improvements while avoiding shutdowns and prolonged bypass pumping. Our initial proposed phasing plan is outlined below, based upon our understating and approach to the project at this time:

1. Site grading and flood mitigation
2. Site utilities and improvements
3. New wetwell construction
4. New Electrical structure and tie-in
5. Demolish existing facility

The proposed construction phasing plan involves several key steps to ensure efficient progress and the successful completion of the project. Initially, the focus will be on site grading and flood mitigation measures to prepare the area for construction activities. Following this, attention will shift to the installation of site utilities and improvements necessary for the functioning of the new infrastructure. Subsequently, the construction of the new wet well will commence. Concurrently, a new electrical structure will be constructed and tied into the existing system to support the operational needs of the facility. Finally, once the new infrastructure is in place and operational, the existing building will be demolished to make way for further enhancements and site development. This phased approach ensures a systematic progression of construction activities while minimizing disruptions to ongoing operations.

Conceptual site layout with elevated facilities for flood protection.
Actual scope of site improvements and demolition to be determined in design.

Section B | Understanding and Approach

Lumos takes pride in our collaborative project approach. Lumos has built a constructive culture founded on collaboration. All of our staff receive communication training, including training on understanding personalities and how to most effectively communicate with others. This emphasis allows Lumos to stand out among engineering consultants and continue to deliver successful projects for our Clients. Lumos will initiate the HLS project by convening a kickoff meeting with CCWD staff to outline the project's initial priorities and establish the criteria for achieving a successful outcome, mirroring our approach on the Sheep Ranch Project. We will engage with both engineering and operations personnel to ensure that the project exceeds CCWD design standards while creating a facility that operates efficiently and is easily maintained. Our seasoned project team will facilitate and lead the initial collaboration meetings to build project team rapport, establish roles and responsibilities, set recurring coordination meetings, and chart out the path for a successful completion of the project.

Lumos understands that initial priorities can change during the course of a project. We also understand that CCWD staff are busy and often managing multiple, concurrent projects. Lumos will, therefore, keep a running design decision log that we will regularly share and update with CCWD staff throughout the project. Lumos will lead project coordination meetings at intervals agreed upon with CCWD , and we will revisit and update this log transparently with the project team. We have developed a resume of successful lift station designs by employing this simple, yet effective tool. Specific elements of our approach to address CCWD's expectations and project requirements are detailed below.

Project Management

Lumos' approach to project management is second to none. Our project managers are experienced technical experts and also effective communicators. In addition to communication training, our project managers get comprehensive project management and leadership training, ensuring that CCWD benefits from competent and effective leadership of the design team. Our project manager for this project, **Aaron Brusatori, P.E.**, will serve as the primary link between CCWD staff and the design team. Aaron will be primarily responsible for tracking the project budget, scope, and schedule. He will be the Lumos point of contact for invoicing and providing regular project progress reports.

As a local, Aaron will be quick to respond to site visits and in-person meetings, available throughout the project duration.

Supporting Aaron on this project will be **Jonathan Lesperance, P.E.**, in the role of QA/QC, and **Mara Quiroga, P.E.**, in the role of Design Lead. Jonathan will have the primary responsibility of furnishing quality assurance and control on all design deliverables, ensuring that the work product submitted to CCWD meets or exceeds CCWD's design standards and is consistent with the established project priorities. Jonathan will personally review the design report and design deliverables in accordance with Lumos' established QA/QC process. Mara will have the primary responsibility of directly overseeing and guiding the design team through the process, drawing on her prior experience of designing dozens of lift stations.

Design Report

Lumos believes that the design report is the most critical component of the project as it will establish the direction of the design, identify basis of design equipment including the proposed pumps and major electrical equipment, document adherence to CCWD design standards and criteria, and be the primary tool for communicating the project to other stakeholders beyond the project team. Lumos furnishes design reports for all of its major lift station projects, including those listed in our select project experience in this RFP. As part of the design report, Lumos will develop initial schematic design level drawings, including 3D renderings of the proposed lift station and electrical building. The design report will include a discussion on alternatives evaluated, along with a justification for why the project team selected the preferred alternative. The alternatives discussion will include an evaluation on potential cost savings, and the design report will include an Engineer's Opinion of Probable Construction Cost (OPCC).

The design report will include information established from the topographic survey and the geotechnical investigation (both discussed in detail below). The design report will specifically document how the project team collaboratively addressed and resolved the challenges and opportunities identified in Project Overview section of this proposal, including:

- Establish design criteria, especially for the pumping system, including capacity, redundancy, and pump system operation
- Construction phasing and approach to maintaining

service throughout the project
- Flood mitigation
- Hydraulic calculations to support pump selection, force main analysis, and wet well volume
- Electrical loads and PG&E utility service modifications
- Odor Control
- Electrical building structural components
- Project permitting

Lumos will provide a draft design report for CCWD review. After completion of District review, Lumos will facilitate and lead an in-person review meeting to discuss the report and address review comments. A final stamped report will be provided to CCWD.

Deliverables
Draft Design Report, Meeting Minutes and Attendance from Design Report Review Meeting, Final Stamped Design Report, Updated Decision Log

Topographical Survey

Lumos employs modern technology with conventional survey methodologies, ultimately providing CCWD with the confidence that all topographic deliverables are second to none in accuracy. Our survey project manager, Andrew Chafer, P.L.S., CFedS, is also local to the project, based in our El Dorado Hills office. By offering survey in-house, Lumos reduces the number of subconsultants on the project and has direct control over timing and performance. This is ultimately a benefit to CCWD as it reduces project design costs and risks. A comprehensive site topographic survey, complete with drone collected aerial imagery, reduces the need for subsequent design team site visits and results in cost savings to CCWD.

Topographic Survey. Lumos will prepare a topographic survey map at 1" = 20' scale with 1 foot contour interval accuracy in accordance to National Map Accuracy Standards for the project area. All existing surface improvements, trees greater than 12" dbh defined by species, striping/pavement markings, visible evidence of utilities, inverts of all measurable utilities within the project area (including pipe size, orientation, and material where observable) will be shown. The area to be mapped will be as shown heron as Figure 1. Project datum will be referenced to modified state plane coordinates and NAVD88. Deliverables will include a signed PDF and CAD files, including an Autodesk Civil 3D surface with appropriate breaklines.

Record Boundary Survey. Lumos will review client provided title reports and best available record maps and documents prior to beginning field work. During the field survey portion of this project existing property corners and street monuments will be located within the project area. If an existing boundary is defined on a map of record, a best fit of the boundary will be made based upon found monuments and record mapping. This task will not include any verification or research of existing ownership. There may be areas discovered that could have a material discrepancy in the record to what is found in the field. If this occurs we will present the findings. If the proposed improvements are close to any possible conflicts additional field work and research may be needed and ultimately a Record of Survey may be required. If this happens, we would appreciate the opportunity to provide a proposal for a modification to our scope and fees accordingly. The deliverable for this task will include record boundary delineation within the topographic survey deliverable referenced herein.

Figure 1 | Limits of Topographic Survey

Deliverables
Final topographic and site survey deliverable stamped by a California licensed land surveyor.

Geotechnical Investigation

For the Geotechnical scope of work, we will complete a field investigation that will consist of two (2) subsurface borings, at the proposed site. Exploration depths will be from 25 to 35 feet below ground surface, or practical refusal, whichever comes first. Samples will be collected from the surface, and at intervals of between 2½ and five (5) feet below ground surface. Lumos will provide the drilling and the USA dig clearance.

Lumos will provide sampling of each exploration, classify the encountered soils in accordance with the Unified Soil Classification System (USCS), and conduct laboratory testing on the samples collected. Additionally, we propose to perform engineering analyses and calculations and develop a Geotechnical Investigation Report that will discuss the geologic setting, seismic considerations, exploration and site condition, field and laboratory test data, and our conclusions and recommendations from a Geotechnical perspective. Our Geotechnical Investigation will be prepared by a Registered California Civil Engineer and will specifically include the following services:

Field Investigation will include:

- USA Dig Clearance
- Location of Exploration Borings
- Logging of all Soil Profiles Based on USCS
- Water Table Measurement, if encountered

Laboratory analysis may include:

- Consolidation (ASTM D-2435)
- Atterberg Limits (ASTM D-4318)
- Grain Size Analysis (including Fines content, ASTM C-136)
- Moisture Density Curve (ASTM D-1557)
- Direct Shear (ASTM D-3080)
- Moisture Content and Unit Density (ASTM D-2937)
- Expansion Index (ASTM D-4829)
- Ph/Resistivity/Soluble Sulfates

Report, Recommendations, and Conclusions:

- Exploration Logs
- Soil Types and Classification
- Laboratory Test Results
- Seismic Considerations
- Geotechnical Discussion
- Modulus of Subgrade Reaction (K-Value)
- Shear Strength Parameters of Site Soils
- Lateral Earth Pressures (active, passive, and at rest)
- Foundation Recommendations
- Excavation, Grading, and Compaction Recommendations
- Slope (Temporary and Permanent) Recommendations
- Portland Cement Concrete Recommendations
- Groundwater Level, if encountered

By offering geotechnical services in-house, Lumos reduces the number of subconsultants on the project and has direct control over timing and performance. This is a benefit to CCWD as it reduces project design costs and risks.

Deliverables

Final geotechnical investigation report with construction recommendations, stamped by a California registered professional engineer.

Design

Following completion of the design report, topographical survey, and geotechnical investigation, Lumos will proceed with detailed design of the project improvements. The design will progressively execute on the decisions and direction identified in the design report. Lumos understands that design decisions and criteria can evolve and it may be necessary to change course on the design. Our approach is that a comprehensive and collaborative effort between the design team and CCWD during the design report process is the most effective and efficient way to mitigate future design changes. Lumos takes pride in being flexible during design and will endeavor to accommodate minor changes without requesting a scope modification from CCWD. Should design changes occur that require a modification to the design scope, our project manager Aaron Brusatori, PE, will promptly discuss with CCWD staff and secure direction before proceeding. All design changes, along with change resolution and District approval, will be reflected in the decision log.

Design milestones will include submittals for CCWD at 50%, 90%, and 100% design levels. Lumos anticipates CCWD review at each design milestone and will address review comments in each subsequent design deliverable. Lumos will coordinate with known utilities in the project vicinity early in the process to request record drawings for those utilities that are not visible at the surface. These record drawings will be integrated with the collected information from the site topographic survey and USA Digs clearance for the geotechnical investigation in order to build a comprehensive set of plans that document the best available data for underground utilities. At the 90% design submittal, Lumos include a 90% project manual complete with front end documents, technical specifications, and appendices. Lumos has standardized its public works project front end documents on the EJCDC 2018 documents, consistent with CCWD standards. Our familiarity with these documents provides CCWD with confidence that the contractual documents will be complete, technically accurate, and efficiently prepared. We will collaborate with CCWD on the supplementary conditions (EJCDC C-800), to ensure that District and California specific requirements are incorporated into the project manual.

Lumos anticipates permitting the project at the 90% design threshold, with the following permits being anticipated:

- Calaveras County Building Permit for new electrical building
- Earthwork and Excavation Permit for grading
- PGE coordination for upsized transformer
- No FEMA coordination/permitting are anticipated with fill and construction expected to be outside of currently mapped floodplains
- No EPA or Federal permitting anticipated under this scope of work
- Permit fees are assumed to be paid by CCWD and are excluded from this scope of work

Prior to commencing with subsequent design milestones, Lumos proposes holding a review meeting together with CCWD to discuss comments and their resolution, as well as documenting any new decisions for the project. These review meetings may be held either in person or virtually, or a combination thereof. A final Bid-Ready design submittal that includes CCWD review on the 100% submittal will be provided to for bidding.

Deliverables

50% Design with updated Decision and Comment Logs, and updated Opinion of Probable Construction Cost (OPCC)

90% Design with Project Manual, updated Decision and Comment Logs, and updated OPCC

100% Design with Project Manual, updated Decision and Comment Logs, and updated OPCC

Final Bid-Ready Design and Project Manual with final Decision and Comment Logs, and final OPCC

Bidding

Under the bidding task Lumos attend the pre-bid job walk and furnish addenda and address Requests for Information (RFI) as requested by the District. Lumos' role during bidding is the direct support of CCWD staff on an as requested basis, and we understand that CCWD will take the lead during bidding. Following completion of bidding and the District's award of the construction contract, Lumos will furnish Conformed for Construction Documents including updated Drawings and Project Manual reflecting modifications during the bidding process, if any.

Deliverables

Conformed for Construction Documents

Services During Construction

Lumos' collaborative approach to project delivery extends beyond the design process. We approach construction as an extension of the project design with the awarded Contractor being the newest member of the design team. Acting in a support role to the District throughout construction, the design team will assist CCWD through construction employing our communication skills and detail oriented, solutions-based approach to construction engineering. Our Project Manager, Aaron Brusatori, PE, and the rest of the design team, will be available to support the District throughout construction on items such as submittal and shop drawing reviews, responding to construction RFIs, assistance with reviewing applications for payment or potential construction contract change orders, and attendance at construction meetings as requested by the District. Our in-house construction services team, complete with credentialled inspectors, is also available to assist the District on an as requested basis. Construction management, inspection, and testing are not contemplated in this scope of work, but can be included under an amended scope and fee proposal.

Deliverables

Final record drawings in AutoCAD 2018 format reflecting contractor and District inspector marked-up drawings.

Section C | **Team Organization**

Aaron Brusatori, P.E. | Project Manager | Lumos & Associates

With over 23 years of civil engineering experience, Aaron brings a wealth of planning, design, construction, and administration expertise for public and private infrastructure and land development projects. Previously serving as Community Development Director, Public Works Director, and Road Commissioner for Amador County, his experience managing multiple local projects with coordination between utilities in the foothills, including Amador Water Agency and the City of Angels Camp, makes him an ideal partner. **Aaron's boots-on-the-ground approach, coupled with his local presence and availability throughout the project duration, positions him as the perfect project manager for CCWD, ensuring seamless coordination and execution.**

Education | BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 2000
Professional Licensure & Certifications | Licensed Civil Engineer in CA #64384

Jonathan Lesperance, P.E. | Group Manager, QA/QC | Lumos & Associates

Jonathan brings over 15 years of extensive design experience in municipal infrastructure projects with an emphasis on wastewater design (including both pressure and gravity sewer lines, lift stations, hydraulic modeling, treatment systems, and master planning). He will provided QA/QC of the design and provide technical mentoring. **Jonathan has completed several successful lift station projects similar to the HLS project. He has also furnished creative, solutions-oriented engineering to CCWD on the Sheep Ranch Water Feasibility Study, demonstrating the capacity of Lumos to solve complex engineering problems.**

Education | BS, Civil Engineering, Arizona State University, 2009
Professional Licensure & Certifications | Licensed Civil Engineer in CA #84438 and NV #22326

Mara Quiroga, P.E. | Senior Engineer | Lumos & Associates

As a Senior Engineer, Mara brings extensive expertise in water and wastewater infrastructure projects, particularly in the design of pump stations and lift stations, having designed nearly 20 lift stations in the past seven years - over a dozen of which she served as the design manager. Her experience spans working with clients like Amador Water Agency, City of Reno, Carson City, Gardnerville Ranchos, and City of Fernley. Mara's strengths lie in lift station replacement and rehabilitation projects, ensuring her designs meet functional requirements while prioritizing longevity and efficiency. Additionally, she possesses proficiency in hydraulic modeling using InfoWater Pro and WaterCAD, leveraging these tools to optimize booster pump station designs and seamless integration with existing water distribution systems.

Education | BS, Civil Engineering, University of Nevada, Reno, 2015
Professional Licensure & Certifications | Licensed Civil Engineer in CA #91948 and NV#26809

Daniel Newton, *P.E. | Senior Engineer | Lumos & Associates

Dan specializes in the design of various infrastructure projects such as water and sewer systems, pump stations, storage tanks, and airport facilities for municipalities and public utility owners. Excelling in hydraulic calculations and skilled in using software like AutoCAD Civil 3D and Autodesk Revit, Dan is adept at acquiring permits and coordinating with stakeholders throughout the project lifecycle. **His experience is highly relevant to CCWD, as he has navigated complex pumping system challenges for multiple clients, bringing a proven track record of developing designs tailored to complex construction phasing and operational challenges, including the Swan Lake Flood Emergency project.**

Education | BS, Geological Engineering, University of Nevada, Reno, 2014, Minor in Hydrogeology
Professional Licensure & Certifications | *Licensed Civil Engineer in NV #28421

Manish Khanal, PE, SE | Senior Structural Engineer | Lumos & Associates

Manish's experience, since joining Lumos & Associates, has expanded to sectors including transportation, geothermal, industrial, commercial, and institutional projects. Manish is the engineer overseeing the structural components of the bridge design for the Truckee River Legacy Trail Phase 4 in Truckee, California. His experience spans transportation, water, and wastewater structures, as well as institutional facilities. Gardnerville Ranchos GID Booster Pump Station and the Tamarack and California Lodges Structural Investigation for the Heavenly Mountain Resort in Lake Tahoe.

Education | MS, Civil Engineering (Structure), University of Huston; BS, Civil Engineering, Trubhuvan University, Nepal
Professional Licensure & Certifications | Licensed Civil Engineer in CA #94298, NV #29054, WA #23004366, HI #PE-20048-S, and TX #138610

Andrew Chafer, L.S., CFedS | Surveying Project Manager | Lumos & Associates

Andrew is our El Dorado Hills Survey Project Manager and has 25 years of surveying experience in both California and Nevada. His background encompasses topographic, boundary and right-of way mapping; construction staking of residential, commercial, institutional and public works projects; deformation monitoring of dams and steel structures; and application of advanced surveying technologies including UAS mapping, aerial & terrestrial LiDAR/3D scanning and InSAR mapping.

Professional Licensure & Certifications | California Professional Land Surveyor #8005, Certified Federal Surveyor #1208, FAA UAS Drone Pilot

Mitch Burns, PE, CEM | Geotechnical Engineering | Lumos & Associates

Mitch has 32 years of geotechnical engineering experience. He has served as a materials technician, special inspector, project engineer, project manager, and department manager. Mitch has authored numerous geotechnical reports for schools, roadways, airports, pipelines, buildings, mines, and site developments across Nevada, and oversees our three materials testing laboratories. He's experienced in slope stability analysis, fault evaluations, and a variety of roadway rehabilitation methods that include pulverizing and reusing existing roadway sections, lime and cement treatments, rock stabilization, geogrids, and geotextile fabrics.

Education | MS, Civil Engineering, University of Nevada, Reno, 1996; BS, Civil Engineering, University of Nevada, Reno, 1992
Professional Licensure & Certifications | California Professional Engineer #72704, Certified Environmental Manager, ACI/ICC/NICET Certified; CPN Nuclear Gauge; CPN Radiation Safety Officer; OSHA Construction Safety; and MSHA

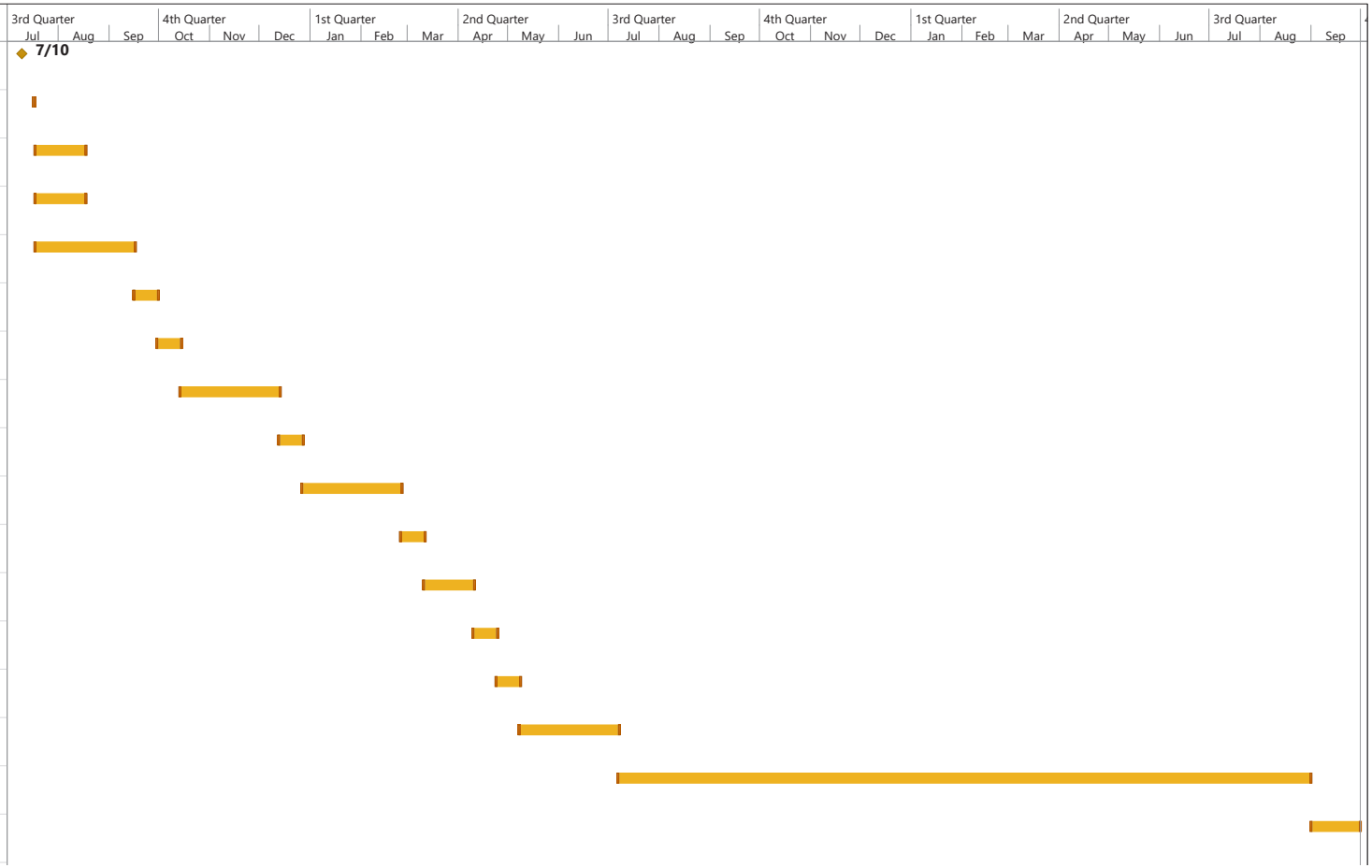
Dugan Hadler, LEED AP, BD+C | Electrical Engineering Lead | PK Electrical

Dugan Hadler has over 25 years of experience that started out on the field as an electrician, foreman and general foreman and then transitioned to electrical designer, estimator and project manager. Dugan has experience with many different project types including commercial, research facilities, industrial, military, utilities and healthcare. He is responsible for designing electrical distribution, lighting, lighting controls, lightning protection, fire alarm systems, HVAC control and communication systems. His most recent relevant experience includes the Orr Ditch Booster Pump Station/Hydroelectric, relocation and replacement of the Huffaker Booster Pump Station, and the Stonegate Pump Station whit at 1,500 sq ft pump station building designed to includes two 100HP pumps with Reduced Voltage Soft Starters, and provisions for two future 300HP pumps to provide multiple operating conditions.

Education | IBEW/NJATC Journeyman Inside Wireman Apprenticeship, 2004
Professional Licensure & Certifications | LEED AP BD+C 10685367

Section D | **Project Schedule**

Task Name	Start	Finish
Notice To Proceed	Wed 7/10/24	Wed 7/10/24
Kickoff Meeting	Wed 7/17/24	Wed 7/17/24
Topographical Survey	Thu 7/18/24	Sat 8/17/24
Geotechnical Investigation	Thu 7/18/24	Sat 8/17/24
Basis of Design Report	Thu 7/18/24	Mon 9/16/24
District Review	Mon 9/16/24	Mon 9/30/24
Final Design Report	Mon 9/30/24	Mon 10/14/24
50% Design	Mon 10/14/24	Fri 12/13/24
District Review	Fri 12/13/24	Fri 12/27/24
90% Design	Fri 12/27/24	Tue 2/25/25
District Review	Tue 2/25/25	Tue 3/11/25
100% Design	Tue 3/11/25	Thu 4/10/25
District Review	Thu 4/10/25	Thu 4/24/25
Bid Ready Documents	Thu 4/24/25	Thu 5/8/25
Bidding	Thu 5/8/25	Mon 7/7/25
Construction	Mon 7/7/25	Mon 8/31/26
Record Drawings and Closeout	Tue 9/1/26	Wed 9/30/26



Section E | Representative Project Experience

City of Reno
North Dakota and Dermody Lift Station Design

Lumos & Associates successfully designed comprehensive rehabilitation and replacement solutions for two aging lift stations in the City of Reno – the Dermody Lift Station and North Dakota Lift Station. These critical infrastructure projects, slated for construction in summer 2024, will revitalize lift stations that were originally constructed in the 1980s and had deteriorated over time.

Lumos' design approach commenced with a thorough alternatives analysis, basis of design report, and detailed cost estimates. The final designs for both lift stations included site grading, surface restoration, and the replacement of key components such as pumps, wet wells, piping connections, controls, electrical systems, mechanical piping, valve and meter vaults, upstream and downstream manholes, and specialized coatings or the use of polymer concrete manholes.

To ensure long-lasting and reliable operations, Lumos conducted buoyancy calculations and incorporated design features to mitigate the impacts of high groundwater levels. Additionally, force main assessments and designs were included to optimize the conveyance systems.

Throughout the design process, Lumos closely collaborated with the City of Reno to ensure compliance with lift station requirements and the preferences of the operations teams. Lift station operators were actively engaged, providing invaluable input to ensure the designs would meet their needs and facilitated seamless integration into their daily operations.

The rehabilitated lift stations will feature submersible pumps housed within new wet wells, complemented by new piping, valve and meter vaults, and force mains. Comprehensive bypass pumping plans were also developed to maintain uninterrupted service during construction.

Lumos is providing construction management services during the construction of the project. These services include facilitating progress meetings, submittal reviews, full-time site inspection, and contractor oversight.

Lumos' approach, which included thorough investigations, design calculations, and close stakeholder coordination, has resulted in robust and operator-friendly lift station solutions that will serve the City of Reno for decades to come.

Dates 12/2022 - 09/2023

Costs $399,753 Design, $2.9M Estimated Construction

Owner Reference Erick Miller, City of Reno, 775.334.2584, millere@reno.gov

Relevant Features to Huckleberry Pump Station

- Rehabilitation/replacement of aging lift stations
- Alternatives analysis of rehab vs. replacement
- Replacing key components like wet wells, pumps, electrical, piping
- Addressing site constraints like high groundwater
- Close coordination with municipal operations staff
- Temporary bypass pumping planning
- Opportunity for Lumos to provide Construction Administration services

Carson City Public Works Riverview Lift Station

The Riverview Lift Station, a critical piece of wastewater infrastructure serving the Riverview residential area in Carson City, Nevada, had fallen into a state of disrepair and operational challenges. Located within the median of 5th Street, approximately 260 feet east of the intersection with Roundup Road, this aging facility consisted of an outdated wet well/dry well configuration with two 15 horsepower alternating pumps. Settlement issues, degraded equipment, and confined space constraints necessitated a comprehensive upgrade.

Carson City retained the services of Lumos & Associates to thoroughly evaluate alternatives and design improvements to revitalize the ailing lift station. After an alternatives analysis, Carson City elected to proceed with a new wet well-style lift station while abandoning the existing dry well structure and repurposing the old wet well as a manhole.

The Lumos design team developed a robust solution centered around a new wet well equipped with dual submersible 7.5 horsepower pumps. To enhance durability and longevity, the wet well incorporates a protective liner coating system. Complementing the wet well are a meter and valve vault, force main connection, and dedicated electrical and control systems.

Careful consideration was given to optimizing the layout and positioning of the new lift station components within the constrained median location. Lumos' design aimed to maximize accessibility for maintenance activities while minimizing disruptions to the surrounding traffic flow along 5th Street.

Throughout the design process, Lumos prioritized close collaboration with Carson City's stakeholders, ensuring the proposed upgrades aligned with the municipality's operational requirements and long-term goals for the Riverview area's wastewater infrastructure.

Lumos' involvement extended beyond the design phase, providing valuable assistance during the bidding process and offering construction administration services. This approach ensured a seamless transition from design to implementation, safeguarding project quality and facilitating a successful lift station upgrade.

Dates 04/2019 - 01/2021

Costs $53,000 Design, $370,000 Construction

Owner Reference Darren Anderson, Carson City Public Works, 775.823.7584, danderson@carson.org

Relevant Features to Huckleberry Pump Station

- Rehab of failing lift station in constrained site
- Abandoning old dry well, new submersible wet well
- Optimizing layout in tight space
- Aligning with municipality's operational needs
- Opportunity for Lumos to provide Construction Administration services

Victory Logistics Development Lift Stations and Force Mains

Lumos & Associates is designing a new sewer lift station and force main system to service Phase 1 of the Victory Logistics ("Mark IV") Industrial Subdivision in Fernley, Nevada. This critical infrastructure will provide wastewater collection and conveyance for the initial 15 subdivided lots spanning nearly 500 acres.

The lift station will be strategically located at the low point of Phase 1 to efficiently receive flows from the on-site gravity sewer network. Key components include a 72-inch wet well with duplex submersible pumps, valve vault, emergency bypass, and provisions for odor control facilities if needed in the future. Wastewater will be pumped through approximately 0.6 miles of force main and discharged at the City of Fernley's East Wastewater Treatment Plant (EWWTP). To accommodate the increased flows, a new headworks facility will be constructed at the EWWTP site.

The proposed lift station design prioritizes operational efficiency, longevity, and compliance with all applicable standards. Detailed analyses have been conducted, including geotechnical investigations, buoyancy calculations, and electrical/control systems design adhering to the latest codes and standards. Sustainable features like corrosion-resistant coatings and a wet well mixer system are incorporated to extend the infrastructure's service life.

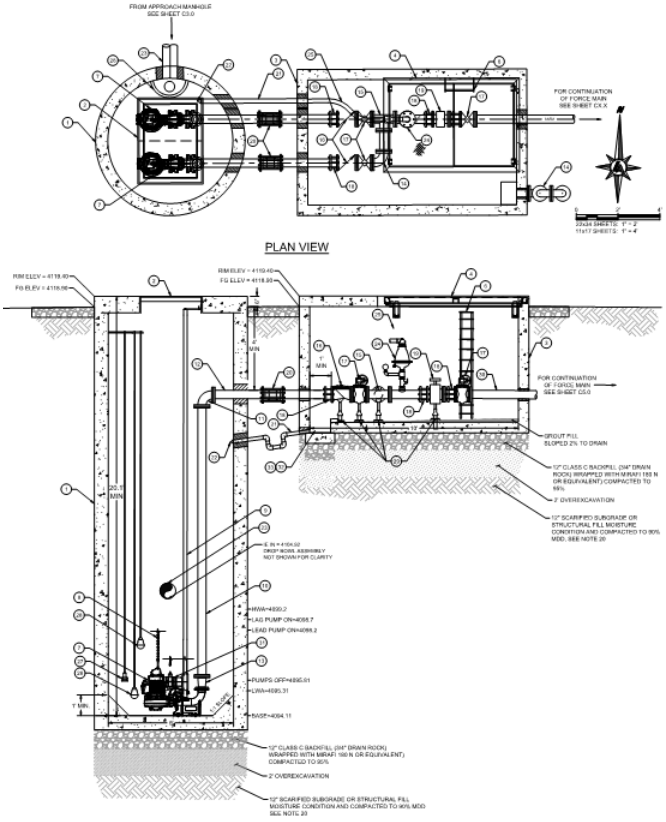
Site amenities and provisions have been carefully considered, such as area lighting, fencing, potable water service, and future expansion space. These elements ensure safe access for operations and maintenance activities, while accommodating potential growth in the future. Lumos & Associates' comprehensive approach ensures a robust and future-proof wastewater infrastructure solution for this key development project.

A key challenge during the initial development stages will be managing extremely low flows and long detention times in the wet well. Lumos has developed operational strategies, such as adjustable wet well set points, to mitigate potential issues like odors and septic conditions until more contributing flows come online as the development progresses.

Dates 01/2022 - Ongoing

Costs $253,500 Design, $1.8M Estimated Construction

Owner Reference Scott Barnes, Mark IV Capital, 775.525.9860, sbarnes@markiv.com



Relevant Features to Huckleberry Pump Station

- Submersible Pump
- Large variation of design flows (Due to phased development)
- Odor and Septic Conditions
- Future Design Considerations

Douglas County Barling Lift Station

Lumos & Associates, Inc. was contracted by Douglas County Public Works to complete a preliminary evaluation of three improvement alternatives for the Barling Street Lift Station located in Minden, Nevada. The existing lift station, a Smith & Loveless dry well/ wet well configuration constructed in 1986, was nearing the end of its useful life.

The design alternatives analyzed were:

1. Rehabilitating the existing wet/dry well configuration
2. Converting the existing wet well to a submersible wet well and abandoning the dry well, and
3. Constructing a new wet well, converting the existing wet well to an approach manhole, and abandoning the dry well

Design assumptions were made based on Douglas County standards and industry practices. A design flow of 79 gallons per minute was determined by analyzing the buildout peak flow and upstream Wildgoose Lift Station flow.

After evaluating feasibility, practicality, cost, and expected lifespan, Douglas County opted for Design Alternative 2 - converting the existing wet well into a submersible station and abandoning the dry well. This alternative eliminated the confined space entry concerns of the dry well at a lower cost than full wet well replacement. However, constructability challenges arose due to existing concrete fillets limiting space for submersible pump installation. Options included removing the fillets or filling part of the wet well with grout. The aging wet well condition also raised questions about installing a new epoxy liner. Additional work included a valve vault, force main redirection, and other piping and electrical upgrades.

Dates 08/2022 - 01/2023

Costs $113,813 Design, $630,000 Estimated Construction

Owner Reference Nathan Smith, Douglas County, 775.783.6025, nsmith@douglasnv.us

Relevant Features to Huckleberry Pump Station

- Evaluation and design for rehabilitation/replacement of existing aging lift station
- Analysis of alternatives like rehab wet well/dry well, convert to submersible, or full replacement
- Constructability challenges with retrofitting existing wet well (concrete fillets)
- Assessing remaining useful life of existing wet well structure
- Option of abandoning dry well and converting wet well to submersible
- Supporting components like valve vaults, force main mods, electrical/ controls
- Determining design flows based on buildout and upstream contributions
- Sizing for operational and emergency storage needs
- Coordinating with municipal owner's standards and operations staff

Gardnerville Ranchos GID
Long Valley Booster Pump Station Upgrades & Construction Management

In August 2020, a design was prepared and submitted by Lumos to Nevada Department of Environmental Protection (NDEP) Bureau of Safe Drinking Water (BSDW) for upgrades to the existing Long Valley BPS in Gardnerville Ranchos GID. The design included upsizing the booster pumps in the existing vault and the addition of backup power. However, upon initial review of the project, NDEP denied the project with the requirement that the station be upgraded to an above-grade station in a building to meet current regulation. Following a District-appeal to the denial and additional discussions with NDEP, the District has decided to move forward with the design and construction of an above-grade station.

Building upon the District's existing investment in the initial design work and conceptual site master planning efforts that were completed in 2020, the redefined project scope included the following:

- Addition of a new CMU pump station building, all-weather vehicle access, and security fencing
- The new pump station will house the following items:
  - Replacement of existing 30 horsepower (HP) pumps with 60 HP vertical split case pumps (pumps have already been specified from prior design efforts)
  - Addition of diesel engine generator and automatic transfer switch (previously specified)
  - Addition of variable frequency drives (previously specified)
  - Electrical and controls improvements (a portion of which have been previously specified)
- Associated site improvements

Lumos is providing construction management services during the construction of the project. These services include facilitating progress meetings, submittal reviews, periodic site inspections, and contractor oversight.

Dates 07/2021 - Ongoing

Costs $313,577 Design, $1.9M Estimated Construction

Owner Reference Greg Reed, General Manager GRGID, 775.265.2048, agreed@grgid.com

Relevant Features to Huckleberry Pump Station

- Initial pump/electrical upgrades evolved into new facility/building
- Provisions for backup power
- Electrical and controls upgrades
- New CMU building enclosure
- Opportunity for Lumos to provide Construction Administration services

Section F | **Staff Labor Estimate**

	Aaron Brusatori Project Manager	**Jonathan Lesperance** QA/QC	**Mara Quiroga Dan Newton** Sr. Engineer	**Manish Khanal** Sr. Structural Engineer	**Project Engineer**	**Designer**	**Dugan Hadler** Electrical Engineering	**Andrew Chafer** Surveyor	**Mitch Burns** Geotechnical Engineer	**Total by Task**
Task 1 Project Management	80									**80**
Task 2 Project Design Report		8	40	8	24	32	19			**131**
Task 3 Topographical Survey								57		**57**
Task 4 Geotechnical Investigation									63	**63**
Task 5 50% Design		8	40	40	40	80	31			**239**
Task 6 90% Design		8	40	32	40	80				**200**
Task 7 100% Design		4	24	8	24	40	46			**146**
Task 8 Bid Ready Documents		2	8		8	24	10			**52**
Task 9 Bidding Assistance		2	24		8					**34**
Task 10 Services During Construction		4	24	8	24		18			**78**
Task 11 Record Drawings			8		8	24				**40**
Total Staff Hours	**80**	**36**	**208**	**96**	**176**	**280**	**124**	**57**	**63**	**1120**

Agenda Item

DATE: June 12, 2024

TO: Michael Minkler, General Manager

FROM: Damon Wyckoff, Director of Operations

RE: Report on the May 2024 Operations Department

RECOMMENDED ACTION:

Report on the Operations Departments Report for Districts 1 through 5.

SUMMARY:

Attached is the monthly Operations Department Report for May 2024. The report will review the operational status and work completed by departmental administration and each of the five Districts. The report will cover the following:

- Administration
- Water treatment plants
- Wastewater treatment plants
- Distribution
- Collections
- Construction
- Electrical
- Mechanical

Staff will be present to report to the Board of Directors and will be available for questions.

FINANCIAL CONSIDERATIONS:

None.

STRATEGIC PLAN INTIATIVES:

OI-01 Ensure our infrastructure is operated and maintained to fully realize its expected life span.

OI-02 Implement preventative, predictive, and corrective maintenance plans to ensure safe and reliable operations.

EO-10 Value the workforce that enables us to deliver on the Strategic Plan goals and objectives and upholds the District's core values.

Attachment: May 2024 Operations Department Reports for Districts 1 through 5

Operations Departments Report

May 1st thru May 31st, 2024

Director of Operations:

1. On-going coordination and management of multiple District Operations projects and work efforts.
2. Presented at the Spring ACWA Conference in Sacramento related to how small utilities work to adjust to ever increasing energy costs.
3. Completed the Fiscal Year 2025 Operations Budget and provided it to the Administrative Services Manager and General Manager.
4. Site visits to multiple in-construction District projects.
5. Continued to work with District Staff and the consultant to ensure the effective implementation of the AMI Project.
6. On-going work related to the Slurry Line and its customers. Worked with the Business Services Manager to review the associated policies and procedures and worked to optimize.
7. Participated in multiple onsite project progress meetings.
8. On-going FEMA coordination related to DR-4683 and DR-4699. Received $14K for the restoration of a fence on a property in Valley Springs. The Construction of the fence continued in March. CCWD also received $184K for staff overtime, material expense, and equipment use as reimbursement for the District's efforts during the 2023 atmospheric river emergency (DR-4683). Received $143K to restore the road to the Indian Rock WWTF and to improve the road address future accessibility issues.
9. On-going work with KW Emerson related to the Shop building fire at the West Point WTP.
10. On-going CARB related work with the CARBs Clean Fleets Infrastructure TRIG, MCWRA, and ACWA.
11. Participated in the Finance Committee meeting to review the Fiscal Year 2025 proposed operations budget.
12. On-going work with Staff and the District's Consultant to glean any additional operational options to improve Disinfection Byproduct reduction in the Ebbetts Pass Service Area.
13. On-going work with the Mobile MMS Team to optimize work orders, service requests, the District Dashboard, and Regulatory Compliance requirements.

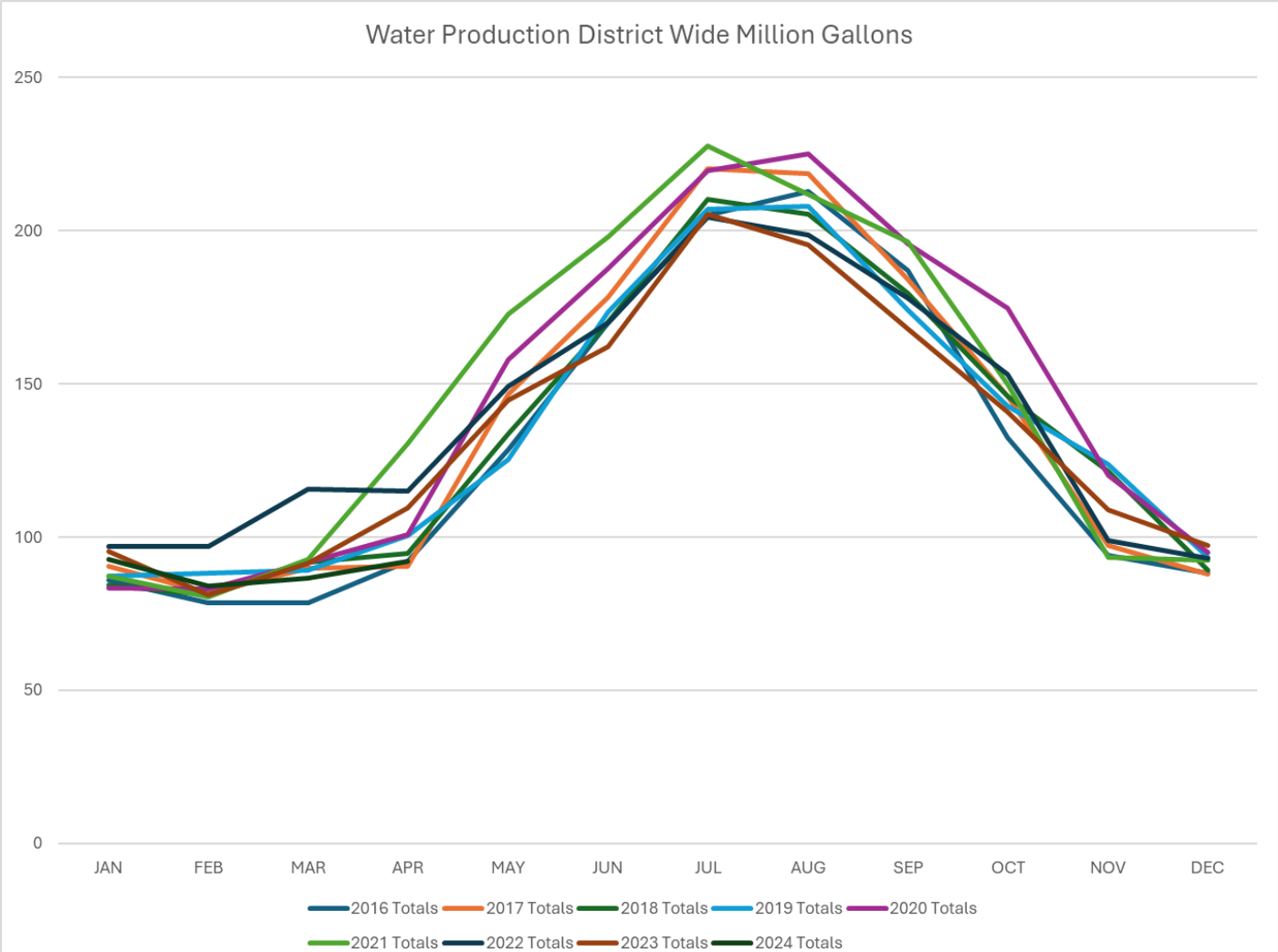
Administrative Technician:

1. Maintained Field Calendar
2. Received/Tracked All USA North Line 811 Locates – Handled Associated Calls –336 Received District Wide
3. Facilitated with Employee Reimbursements
4. Facilitated with Employee Certification – Applications, Exams, Renewals, Trainings, Resources
5. Field Training Course Ordering/Registrations/Travel Arrangements
6. Process Operations Purchase Order Batches
7. On Call Reminders, Transfers, Logs
8. Electronic Lab Report Filing
9. Organizing and Archiving Operations Department Documents
10. Safety Tailgate Meetings: Create, Track, & Archive
11. Attended Various Meetings: PRT, Board, External Affairs, Streamline Design & Review, County Building Dept.
12. Attended Various Trainings: Anti-Sexual Harassment, Regulation Essentials, ICS, CCR
13. Permit Renewals
14. 2024 CERS Program Work Efforts
15. 2024 Backflow Program Work Efforts
16. Cross Connection Survey Work Efforts
17. Miscellaneous Administrative Functions

Plant Operations Manager:

1. Completed the review and acceptance of the monthly State Water Reports for all the Districts Water Systems and submitted them to the State
2. Completed the monthly Wastewater Reports for all the Districts Wastewater Systems and submitted them to the State.
3. Working very closely with the new operator in West Point to ensure that all system needs are met.
4. Attended construction meeting for the Wilseyville and west Point consolidation project.
5. Working closely with our operators in Copperopolis water, wastewater, and reclaim plants.
6. On-going work associated with PO's and ordering supplies for different District facilities and projects
7. Continued work efforts on annual backflow testing
8. Ongoing work efforts associated with the Ebbetts Pass HAA5 violation for purposes of public notification and data collection.
9. Accompanied Division of Dam Safety on an inspection of the Forest Meadows Dam.
10. Completed the SAFER Clearinghouse monthly reporting with our Water Resources Specialist.
11. Construction meetings dealing with Copper Cove B Tank and Clearwell project with Peterson Brustad INC.
12. Ongoing work efforts related to the District's Cross Connection Control Surveys with Ms. Burke.
13. Met with the County's Building Department Director on their new software for new construction.
14. Working on the Operations plan for revision for West Point Water Treatment Plant.
15. On-going work efforts with the Districts CERS (California Environmental Reporting System) annual reporting.
16. Met with our Water Resources department.

17. **April 2024 Water Production**
    a. Copper Cove – 25.389 MG
    b. Ebbetts Pass – 26.497 MG
    c. Jenny Lind – 36.242 MG
    d. Sheep Ranch – 0.343 MG
    e. Wallace – 1.054 MG
    f. West Point – 2.516 MG



Construction and Maintenance Manager:

1. Staff meetings.
2. Board meetings.
3. Weekly Copper Cove tanks project meeting.
4. Copper Lift Station and force main relocation project weekly meetings.
5. West Point/Wilseyville Consolidation on-site project meeting.
6. Attended Employee Wellness Committee meetings.
7. Budget Workshop meetings.
8. Attended Finance Committee meeting to discuss budget.
9. Meet and Confer meeting between MCU and Management to discuss a couple items.
10. Attended Incident Command System (ICS 100) training at CCWD Headquarters.
11. Met with Director of Ops and new Director of County OES.
12. Conducted an MCU meeting to discuss items being proposed.
13. Conducted research for 8456 Baldwin for past work efforts and contacted customer.
14. Put together list of customers served for specific lift stations and water zones for the critical generator project.
15. Review RFPs for Huckleberry Lift Station design. Met with Ops and Engineering to select candidate.
16. Site visit to Copper to research repeaters and possible missing repeaters as well as location.
17. Site visit to 6” main line repair efforts on Pine Drive in Arnold. (EP Dist and Utility Crews)
18. On-site visit to Copper B-Tank and Clearwell project and meetings.
19. Site visit to La Contenta area.

20. Site visit for the West Point/Wilseyville Consolidation Project and meeting.
21. Coordination with staff to complete meter reads for billing.
22. Review applications with the Senior Collection worker for the open Collection position and select interviewees.
23. Coordination with Construction/Utility and JL Distribution for valve and hydrant replacements along with shutdowns.
24. Multiple field/site visits.
25. Multiple phone calls to customers to discuss issues/concerns.
26. Review and submit Right of Way notifications to County PW.
27. Review and approve timecards.

Purchasing Agent:

1. Worked on inventory of new warehouse.
2. Completed invoicing for purchased material.
3. Met with various reps and received quotes for various items for purchase.
4. Ordered parts, tools, materials, and equipment for all departments.
5. Coordinated servicing of District Vehicles for Field Staff
6. Reconciled Credit Cards for Field Staff
7. Worked with new facilities maintenance worker on work order completion
8. Worked on hydrant and valve order for hydrant replacements in La Contenta
9. Worked on DAF motor replacement for The Forest Meadows WWTP.
10. Worked on purchase request and inventory transfers in MMS.
11. Delivered supplies, materials, and parts.
12. Ordered parts and tools for the Vallecito WWTP Shop.
13. Worked on recall orders for lease vehicles.
14. Worked on capital outlay purchases for this year's fiscal.
15. Worked on hydrant repair costs and repair kits
16. Worked on safety supplies purchase
17. Re-organized the warehouse.
18. Sprayed herbicide for weed abatement.
19. Worked on an inventory stock replenishment order.

Water Treatment Plants:

Copper Cove Water Treatment Plant:

1. Operations as usual
2. B Tank/Clearwell rehabilitation and replacement project continues.
3. The only operational Ozone unit failed. Brought the prechlorination system online. The new ozone units will be installed at the beginning of June.
4. The Plant Operations Manager worked closely with the Shift operator to optimize system processes and overall facility operation.

Hunter's (Ebbett's Pass) Water Treatment Plant:

1. Operations as normal
2. Cleaned-up around the Avery Pump Station.
3. Investigation RE comm issues at Big Trees 4 and Larkspur Pump Station. Electricians resolved.
4. UCMR 5 samples collected.
5. CL-17 Serviced at the Sawmill Tank.
6. Monthly White Pines Dam inspection completed.

Jenny Lind Water Treatment Plant:

1. Operations as usual

Sheep Ranch Water Treatment Plant:

1. Operations normal for the Month.

Wallace Lake Estates Well System:

1. Operations as usual

West Point Water Treatment Plant:

1. Operations as Usual
2. On-going construction for the installation of the second filter.
3. The installation of the second filter is operationally complete and has been approved for use by the State.

Wastewater Treatment Plants:

Arnold Wastewater Treatment Plant:

1. Operations as usual
2. Replaced both 6-inch scum trough gate valves at the Digester.
3. Cleaned the sludge pump sump and the mechanics replaced the packing on the pump.
4. Greased the clarifier, belt press, and telescoping decant drives. Scrubbed the clarifier and sprayed with hypo to clean.

Copper Cove Wastewater Treatment Plant:

1. Normal Operations
2. Vertical Aerator exchanged for a horizontal aerator in Pond 4.

Copper Cove Wastewater Reclamation Plant:

1. Prepped the Facility to be brought online for the season.

Country House Wastewater Facility:

1. Operations as usual

Forest Meadows Wastewater Treatment Plant:

1. Operations as usual
2. UVT Monitor tech swapped out cord and controller w/ updated firmware- still getting errors. Sent original sensor and controller back to YSI service dept for repairs and testing.
3. Lab DO probe failed- replaced sensor cap- ok.
4. UV system fuses failed- Electrician replaced-ok.
5. DAF #2 control valve failed upon start up- reset DAF and cycled power-ok.
6. BW return sump high level alarm- reset pumps and pumped down well in hand- nothing obviously wrong- operating normally.
7. IT set up a new internet- phone and the internet work much better.

Indian Rock Vineyards Wastewater Facility:

1. Operations as usual
2. Need to determine how to provide water service to the facilities to improve system and basket cleaning.

La Contenta Wastewater Treatment Plant:

1. Operations as usual

Mountain Retreat / Sequoia Woods Wastewater Facility:

1. Operations as usual

Six Mile Wastewater Collection System:

1. Monthly reads taken and report submitted to the City of Angels Camp

Southworth Wastewater Treatment Plant:

1. Operations as usual

Vallecito / Douglas Flat Wastewater Treatment Plant:

1. Operations as usual
2. Worked with Collections to pump down the Sprayfield pump station pump cans in order to replace a failing pump. Unable to locate isolation valves for the pump cans.
3. Still dealing with cows daily. Working to keep them off CCWD property.
4. Ongoing replacement of broken irrigation heads (Cows).

West Point Wastewater Treatment Plant:

1. Operations as usual
2. Consolidation project in full swing.

Wilseyville Wastewater Facility:

1. Operations as usual

Distribution:

Copperopolis Distribution System:

SERVICE LINE WORK

1. 280 Copper Crest
2. 2928 Beaver
3. 1736 Cheyenne
4. 3239 Yana
5. 586 Thomson
6. 524 Bret Harte

MAIN LINE WORK

None during this time

Additional Work

1. 15 Valves Turned
2. Service Requests
3. Flushed 131,500 gallons.
4. USA's
5. We knocked down weeds around our PRV Vaults, cleaned them, and exercised the valves on Sawmill and Bear Claw.
6. Completed maintenance on the trash pumps, cut-off saw, and other equipment.

Ebbett's Pass Distribution System:

SERVICE LINE WORK

1. 1" Poly – Lakemont Dr.
2. 1" Poly – McKenzie Ave.

MAIN LINE WORK

1. Pine Drive – 6" A.C. Main (approx. 250K gal leak)

Additional Work

1. SERVICE REQUESTS 13 Received 11 Resolved
2. WORK ORDERS 8 Received 8 Resolved
3. USA TICKETS 166 Received 166 Resolved
    a. 0 Renew
    b. 171 Normal
    c. 92 Rush
    d. 3 Emergency
4. PRV S
    a. 5 PRV Stations Inspected
    b. 2 PRV /CRD Repairs
5. Valves Exercised – 15
6. Ongoing system optimization adjustments and investigations in Big Trees #4 and Big trees #6 Zones.
7. Routine system maintenance and improvements
8. 3 Routine ARV repairs.

9. Found and raised multiple G-5 valve boxes.
10. Repaired unsafe PRV lid on Ben Thorn Drive.
11. On-going documenting and photo logging of PRV Stations.
12. Logging pressure readings into MMS mapping.
13. On-going potholing and locating to verify infrastructure locations and GIS updates to improve District mapping.
14. Attended anti-sexual harassment training.
15. Attended Sentryx (AMI system) training.
16. Attended ICS training
17. Daily and monthly vehicle inspection logs.
18. Still receiving multiple USA and field meet requests associated with the PG&E Underground Project.
19. Repaired the concrete sidewalk at the Solar Ridge condos that was cut out during a previous leak repair.

Jenny Lind Distribution System:

SERVICE LINE WORK

1. 2706 Huckleberry
2. 3606 Hartvickson
3. 5950 Clements Place – Full line replacement from the main to the curb stops
4. 4947 Dunn
5. 4274 Dunn
6. 5641 Baldwin
7. 11250 Milton Rd – Replaced 12' of service line from edge of road to curb stops
8. 11385 Milton
9. 6031 Hwy 26
10. 8014 Kirby
11. 6177 Rippon
12. 6735 Jenny Lind Road
13. 6008 Rippon
14. 2129 Partridge x 2
15. 2939 Berkesey
16. 6104 Usher
17. 8761 Hautly

MAIN LINE WORK

None during this time

ADDITIONAL WORK

1. Vehicle inspections
2. Month end reads for hydrant meters, fill stations, raw water and Lancha Plana
3. Lower end flushing for water quality
4. Tank and pump station checks
5. USA Line locates
6. Work orders for hydrant meter installations, pressure problems, water quality issues, leak checks.
7. 130+ manual reads on meters for billing that did not pick up through Sentryx.
8. Located and paddle marked cross country water main in Wallace Lake Estates.
9. Sexual harassment training in San Andreas.
10. ICS training.
11. Hours of flushing in 602 zone after Cal Fire caused extreme dirty water during their hydrant maintenance.
12. Greased and cleaned GapVax at Jenny Lind warehouse.
13. Located missing and buried valves at following addresses – We dug them up and exposed the valve cans and brought them up to grade with valve can risers. They had been long buried and missing
    a. 563 Saint Andrews
    b. Intersection of Hwy 26 and Vista Del Lago
    c. 1902 Hwy 26
    d. 2281 Hwy 26
14. Investigated distribution system at Silver Rapids and Hwy 26. The maps showed that the water line in this area had been severed and did not continue up Hwy 26 from this location during the Hwy realignment. We uncovered a valve at this location and discovered that it is still connected here. After that we made a

GIS update in Mobile MMS reflecting this. This was a big find and will help us in better operating the Jenny Lind distribution area in the future

15. Assisted both the construction and utility crews for valve and hydrant replacements in the following areas
    a. 6" valve at 450 La Contenta Dr – broken closed
    b. 6" valve on Saint Andrews between Augusta Ct and North Pebble Beach Ct – broken closed
    c. 6" valve at intersection of Saint Andrews and North Pebble Beach Ct – broken closed
    d. 6" valve at intersection of Bane and Cox – broken closed
    e. 6" valve at intersection of Sparrowk and Stinson View – broken closed
    f. 2 – 6" valves on TEE at 2345 Hwy 26 – both broken closed.
    g. 6" valve at 2187 Hwy 26 – broken closed.
    h. 6" valve at 2045 Hwy 26 – broken open and inoperable
    i. Out of service fire hydrant replacement at 6207 Rippon – No guard valve on old hydrant – New guard valve installed with the new hydrant.
    j. Out of service fire hydrant at 11845 Main St Jenny Lind – No guard valve on old hydrant – New guard valve installed with the new hydrant.
16. 25 leaks pending repair
    a. 3 of the leaks are on 2" bluebell mains
    b. 1 leak on 6" AC

West Point Distribution System:

SERVICE LINE WORK

1. 4744 June

MAIN LINE WORK

None during this period

ADDITIONAL WORK

1. Line Locates (USA's) Water and Sewer
2. Service Request and Work Orders
3. Weekley Tank and Pump Checks
4. Weekley Reads
5. Located and Dug up Buried Valve on Charles Ave
6. Gathered Radio and Manual meter Reads
7. Weed Whacked all Around Warehouse and sprayed
8. Cleared out Moke River Pump Station Dam/Spillway from logs and debris.
9. Put in Dam Boards wrapped in 10 ply Vis queen at the Regulator Pond
10. Worked on Equipment in Shop Weed Whacker, Blower, etc.
11. **Flushing**
    a. Barney
    b. Timber
    c. Faye
    d. Barbera
    e. Patrica
    f. Charles

Total Gallons Flushes

64,875gal

Electrical:

1. Installed 4' ballast bypass LED lamps at A-Tank pump station.
2. Troubleshot exterior wallpacks at A-Tank pump station, cleaned photocells.
3. Installed 4' ballast bypass LED lamps at B-Tank pressure system in Valley Springs.
4. Unwired and removed failed ozone generator #1 at Copper Cove WTP, labeled all I/O.
5. Installed and anchored the new ozone generator UPS system to the floor at the Copper Cove WTP.
6. Switched main breaker off and tested standby generator capacity at the La Contenta WWTP during a planned PG&E outage.
7. Used bucket truck and assisted I.T staff in installation of new Starlink ISP at the White Pines Barn.
8. Attended instrumentation certification test prep class in Fairfield.

9. Changed the VFD programming for the new Copper Cove lift station #17 control panel so the cooling fan only runs when the pump is called to run, also added a 10 second timer for the pump fail to stop alarm to prevent an erroneous alarm condition.
10. Removed power feed wires from the Wilseyville pond building so the contractor can demo the old electrical gear.
11. Troubleshot and repaired the reclaim valve at the Copper Cove reclaim plant, the valve was in the off position, switched it on.
12. Added promoted operator to the Copper Cove reclaim SCADA system and the new Ignition SCADA system at the Copper Cove WTP
13. Removed ex operators from the Jenny Lind WTP and La Contenta WWTP SCADA alarm system call out lists.
14. Troubleshot and repaired breaker tripping at the Vallecito WWTP spray field, downloaded the PLC program, replaced a failed ANR 120-90 mixed I/O base.
15. Troubleshot and repaired the UV system at the Vallecito WWTP, cleaned the wire ribbon for the existing control board.
16. Troubleshot and repaired a communications failure and a generator running alarm at Larkspur pump station.
17. Troubleshot and repaired a communications failure at Big Trees 4 Tank site, the alarm cleared before we got there.
18. Troubleshot multiple AMI sites, found bad cell modem at A-Tank, could not locate a site in Copper due to improper address, GPS location and aerial photo.
19. After hours troubleshoot and repair of the Vallecito WWTP spray field pump station, a bad low-level float has locked out the pumps, replaced failed low-level float with a new unit.
20. Performed multiple electrical system locates in the Copper Cove service area.
21. Replaced failed GFI receptacle next to the La Contenta WWTP UV system per the plant operator.
22. Troubleshot and repaired a communication failure at Copper Cove lift station #7, used bucket truck to cut tree limbs out of the way of the telemetry radio antenna.
23. Troubleshot the Copper Cove Raw Water pump station standby generator rupture alarm, tested function, generator runs fine, let mechanical staff know the status, they will see if the inner fuel tank has indeed ruptured.
24. Troubleshot and repaired a communications failure at Azalea Court lift station, rebooted telemetry radio and PLC, communication now restored.
25. Troubleshot more AMI collector failures, gateway and/or cell modem failure at Feather Drive site.
26. Replaced failed level transducer with a new unit at Copper Cove lift station #8.
27. Installed/set up a virtual machine on an electrical department laptop to interface legacy PLCs.
28. Troubleshot and repaired another radio communication failure at Azalea Court lift station, went online with radio and adjusted output wattage, went online with PLC, network speed now fast and communication has been restored.
29. Installed 2 new IDEC timing relays for the return can pumps at the La Contenta WWTP after a failure.
30. Helped I.T department replace a failed ethernet switch at the Copper Cove WTP.
31. Pulled wire, installed crimp lugs and terminated ends in the new ozone system UPS at the Copper Cove WTP, in preparation of the warranty start up.
32. Troubleshot and repaired the polymer pump at the Hunters WTP, it was shutting off during plant operation, found a loose neutral wire and tightened it.
33. Troubleshot and repaired backwash return pump #2 at the Jenny Lind WTP, was tripping the breaker, tightened connections.
34. Troubleshot and repaired B-Tank overflowing in Copperopolis after a contractor hit the transducer line during construction, flushed air and debris out of transducer feed line.
35. Worked with Forest Meadows golf course staff to turn on the aerator in the pond.
36. Loaded a . drp configuration file onto a new ViPR radio for Azalea Court lift station.
37. Replaced a failed network switch at the Azalea Court lift station.
38. Added a new operator to the CCWTP remote SCADA access and the alarm call out lists
39. Troubleshot and repaired a radio communication failure at Big Trees 4 tank, performed online diagnostics with the radio.
40. Worked with A-TEEM on the Copper Cove WTP SCADA Ignition application.
41. Troubleshot and repaired a radio communication failure at Larkspur tank, communication alarm cleared before arrival to site.
42. Troubleshot pond 6 pumps at the Copper Cove WWTP, air in the lines, pumps pulling well below FLA.
43. Replaced a failed solenoid valve at the Arnold WWTP.
44. Troubleshot and repaired Southworth WWTP wet well control system, replaced bad floats.
45. Troubleshot Copper Cove lift station #14, breaker won't reset, handle damaged, ordered new unit.
46. Wired in new nitrogen compressor dryer in the Jenny Lind WTP ozone room.

47. Troubleshot suspected transducer problem at Copper Cove lift station #4, checked trends, transducer fine, system went into backup.
48. Troubleshot Copper Cove lift station #12 pump fail to stop alarm, upon arrival, station worked perfectly.
49. Troubleshot the level transducer at Copper Cove B-Tank, level off by 2', had operator change start/stop setpoints until transducer is replaced during current construction project.
50. Troubleshot rooftop HVAC unit at Copper Cove raw water pump station, it will run 3 minutes and over amp, unit is scheduled to be replaced on 5/30/24.
51. Worked with Gold Electric at B-Tank in Copperopolis to pull new wire to repair an altitude valve that was damaged during the construction project.
52. Replaced failed 750 UPS for the SCADA computer at the Copper Cove reclaim plant.
53. Helped operations at the West Point WTP find out why almost 900 gpm was leaving the Clearwell, checked for a leak at Bummerville Tank per operator, problem was water trucks pulling off a hydrant.
54. Troubleshot and repaired Larkspur communication failure alarm every time Big Trees 4 has a communication failure, problem was the wrong item number in the Larkspur Comm fail alarm tag, I replaced it with correct number on both SCADA machines and republished the Wonderware application
55. Wired in/tested new pump #4 at A-Tank pump station in Valley Springs
56. Troubleshot and repaired a mass telemetry radio communication failure on Ebbetts Pass, had operations staff replace a failed 750vA UPS at the Comm71 master polling site.
57. Altered an alarm in the Copper Cove WTP Ignition SCADA program for a Copper Cove headworks power fail alarm to not call out per operator, alarm remains in the alarm stack.

Collections:

1. SSO online reporting completed
2. Weekly lift station inspections completed
3. Monthly dry can inspections completed
4. Monthly vehicle inspections completed
5. Continued checking USA's district wide
6. Sexual harassment classes at the office.
7. Hydro'd Foothill to Sandy Bar. (Yearly maintenance - Copperopolis)
8. Picked up confined space equipment from Malory Safety in Modesto.
9. Pumped and cleaned Lift Station 4 in Copper and pulled pumps and cleaned them.
10. Pumped and cleaned back wash ponds at the Copper Cove WTP (multi-day effort).
11. Continued septic tanks in Vallecito (multi-day effort).
12. Attended new push camera and line locator training class.
13. Walked and cleared The Bench for hydroing on the 21st.
14. Attended a WDR class in Ripon.
15. Called out to 7433 Leslie Ct. septic tank alarm. Pump wire nut had burnt out. Repaired.
16. Called to new house on Oak Creek Ct. odor complaint. Toilet was leaking at wax ring.
17. Called to 4253 Parrots Ferry Road septic issue. House breaker was tripped by PGE outage.
18. Pumped and cleaned the Upper Cross-Country LS. Pulled and cleaned mixer.
19. Helped the Ebbetts Pass Distribution Crew with a leak on Pine drive in Arnold.
20. Hydro'd The Bench in Copper. (Yearly maintenance).
21. Some staff attended the ICS class at the Training Center.
22. Others attended the 2nd ICS class at the Training Center.
23. Called to LS 12 due to pump 2 failure. No issues found. Possible power bump?
24. Pumped and cleaned the Lower Cross-Country LS.
25. Called out to 2976 Bowling Green lane. The septic alarm was going off. Low level float had gone bad.
26. Setup for a confined space entry at La Contenta WWTP on Thursday 5-30.
27. Called out LS 4 in Copper due to transducer failure. Replaced the failed transducer.
28. Cleaned #1 sand filter at the La Contenta WWTP.
29. Called out to 7154 Elizabeth Ct. for a septic tank alarm was going off. On off float had gone bad. Replaced.
30. Pumped the Vallecito WWTP irrigation wet well.

Construction:

1. Assisted the Ebbetts Pass, Copper Cove, and Jenny Lind Distribution Crews in the repair of water service laterals and water mains.
2. Assisted the Mechanical Crew in the transport of vehicles and equipment for repair.
3. Assisted the Collections Crew in System Repairs.
4. Potholed, investigated, prepped, and replaced valves on St. Andrews and La Contenta Drive.
5. Loaded plastic temporary water storage tanks on Blue Lake Springs MWC trailer for their temporary use.
6. Installed a water line at the Vallecito Shop across the parking lot to have a water supply at the road base stocking area.
7. Replaced a fire hydrant and installed a guard valve on Old Main Street in Jenny Lind.
8. Installed a fire hydrant on the corner of Baldwin and Rippon Road in Rancho Calaveras.
9. Poured a concrete house keeping pad for the hydrant on Baldwin and Rippon.
10. Dropped off Kenworth at the Mechanics Shop for emissions system repair.
11. Fixed the water service at the District's rental in Rancho Calaveras.

Utility:

1. Relocated the Service Lateral Operation back to Baldwin in Rancho Calaveras.
2. Assisted Crews with leak repair.
3. Completed service lateral replacements in the Poker Flat HOA for the season.
4. Assisted the Jenny Lind Distribution Crew with valve installations.
5. On-going work with a Bad Elf GIS locating device.

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