CALAVERAS PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS REGULAR MEETING: 3:00 PM
September 14, 2021

President J.W. Dell 'Orto
President of the Board

Director Richard Blood
Director Scott Speer

Director Brady McCartney

Calaveras Public Utility District hereby provides notice that it will convene its regularly scheduled public meetings of the Board of Directors exclusively by telephone conference until further notice. No attendance will be permitted by the public at the District office until further notice.

Based on guidance from the California Governor's Office and the Department of Public Health, to minimize the potential spread of the COVID-19 virus, please do the following:

- **Join the Conference Call meeting**
- **Dial-in number (US): 1(669)900-9128**
- **Join the online ZOOM meeting:** https://us02web.zoom.us/j/81514083058?pwd=UWdBT0FOMHlQRlBzQUNtZnZVcHdEUT09
- **Meeting ID: 815 1408 3058**
- **Meeting Passcode code: 075725**

Please mute your call before joining. This will limit technical difficulties with audio. Only unmute your call if the President has requested public comment on an item. Upon completing your comments, please mute your call again. Do not put the call on hold, as hold music can ruin the call for all other participants. If that occurs, or in the event of disruptive conduct, staff reserves the right to disconnect that caller. Do no talk over the top of any other callers. Conversations must be one at a time.

AGENDA

1. **CALL THE MEETING TO ORDER**
2. **ROLL CALL OF DIRECTORS**
   a. President J.W. Dell 'Orto
   b. Director Richard Blood
   c. Director Scott Speer
   d. Director Brady McCartney

3. **PLEDGE OF ALLEGIANCE**

4. **PUBLIC COMMENT (Limit: 3 min/person)**
   At this time, members of the public may address the Board on any matter within its jurisdiction which is not on the agenda. The public is encouraged to work with 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 3 minutes per person.

5. **CONSENT ITEMS**

Consent items should be considered together as one motion. Any item(s) requested to be removed will be considered after the motion to approve the Consent Items.

a. Claim Summary

Action: Roll call Vote
Consider motion to approve consent items for items a.

ITEMS FOR BOARD DISCUSSION AND/OR ACTION

Board action may occur on any identified agenda item. Any member of the public may directly address the Board on any identified agenda item of interest, either before or during the Board's consideration of that item.

6. **PUBLIC EMPLOYEE APPOINTMENT**

Title: General Manager
Consideration of appointment of General Manager and approval of employment agreement.

Action Requested: Roll Call Vote

7. **STATUS REPORT/CLEARWELL PROJECT**

Clearwell Tank Project Status Report

8. **SCHAADS-FERC – ANNUAL INSPECTION AND PART 12D SAFETY INSPECTION AND REVIEW FOR THE SUBJECT DAM IN THE MIDDLE FORK HYDROELECTRIC PROJECT**

Action Requested: Roll Call Vote

1. Authorize staff to execute the contract with Slate Geotechnical Consultants, Inc in the amount of $57,080 to perform tasks to satisfy FERC Part 12D requirements
2. Approve the task order with Rich Sanchez to assist and facilitate to completion the remaining outstanding dam safety issues. The "not to exceed" and scope will be provided either prior to or at the Board meeting.

9. **MOTHERLODE JOB TRAINING (MLJT) WORKSITE**

Action Requested: Roll Call Vote
Authorize staff to partner with the Motherlode Job Training and to execute the Worksite agreement.

10. **LIABILITY, PROPERTY, AND WORKERS' COMPENSATION PROGRAMS RISK ASSESSMENT**

Action Requested: Roll Call Vote

1. Authorize staff to partner Fawn McLaughlin on the Risk Control Grant application and return in October with a proposed contract.
2. Direct staff to coordinate Board member signatures on the Certificate of Excellence provided by ACWA-JPIA, suitable for framing and posting.

11. **REDHAWK DAM - TREE ASSESSMENT**

Action Requested: Roll Call Vote

Provide direction to staff and take action as necessary or required

12. **DISCONTINUED WATER SERVICES AND BILLING PRACTICES RELEVANT TO RESOLUTION NO. 2003-27**

Action Requested: Roll Call Vote

1. Adopt Resolution 2021-9
2. Direct staff to notify the 10 customers discontinued but not yet considered abandoned, apply the monthly minimum billing charge starting with the July 2021 billing cycle, and advise them of the conditions of a new service.
3. Direct staff notify the 104 customers considered abandoned and advise them that their meter will be removed, advise them of the conditions of a new service connection, but also provide these customers the **option** to pay the monthly minimum charge going forward starting with the July 2021 billing cycle, in lieu of a meter removal.
4. Add the following to the Water Rate Schedule and place on the CPUD website.

Overview of Treated Water Billing Components

CPUD sets rates and charges to recover the cost of providing service. CPUD is required to maintain the treatment, transmission, storage, and distribution facilities necessary to serve each property that has paid Water Connection Charges, regardless of how much water is used by a customer. CPUD's treated water rate structure has two charges; Monthly Minimum Fixed Charge and a Water Usage Commodity Charge (water tier rates based on water use). The fixed charge is billed and payable whether or not any water is used and is prorated based on the number of days in the billing period.

The Monthly Minimum Fixed Charge and Water Usage Tiered Rates fund CPUD's operations including personnel, supplies, services, state and federal mandates, insurance, legal and consulting services, utilities, routine capital and other operation expenses.

13. **REPORTS**

The purpose of these reports is to provide information on projects, programs, staff actions, and committee meetings that are of general interest to the Board and public. No decisions are to be made on these issues.

a. Legal Counsel's Report
b. Water System Superintendent's Report
    i. Maintenance Report
    ii. California Rural Water Association - SAFER Program
    iii. SRF Application Update
    iv. Curtailed Water Rights
c. Interim General Manager's Report
    i. Board Member Appointment Update
    ii. Conservation Plan
    iii. Changing October Board Meeting to October 19, 2021
d. Director's Comments: Directors may make brief announcements or brief reports on their own activities. They may ask questions for clarification, make a referral to staff or take action to have staff place a matter of business on a future agenda.

CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT (Gov. Code § 54957)

Title: General Manager

Meeting with Gary Phillips of Bob Murray & Associates, District negotiator/recruiter for General Manager position.

14. **ADJOURNMENT**

If there is no other Board business the President will adjourn the meeting to its next regular meeting October 19th, 2021, at 3:00 p.m.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Office at (209) 754-9442. Notification in advance of the meeting will enable CPUD 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 CPUD for review by the public.

CALAVERAS PUBLIC UTILITY DISTRICT

CLAIM SUMMARY #____755____

DATE: ___August 2021_____

The claims listed on the schedules attached to this summary have been examined and found to be correct and proper demands against the Calaveras Public Utility District.

Claims Submitted	$193,159.52
Payroll Submitted	$ 39,265.57
P/R Tax Deposits	$ 16,479.71
Sub-total	**$248,904.80**

Net Additions	
Net Deductions	
Claim Summary Approved for	**$248,904.80**

Clerk of the Board, Calaveras Public Utility District

Calaveras Public Utility District
Expenses by Vendor Detail
August 2021

Name	Date	Memo	Account	Amount
ACWA-Health				
	08/05/2021	Dental & Vision Insurance	5643 · Medical Insurance	606.57
Total ACWA-Health				606.57
ACWA/JPIA-WC				
	08/31/2021	Worker's Compensation for the period 4/1/2021 - 6/30/2021	5428 · T & D Insurance	4,061.49
Total ACWA/JPIA-WC				4,061.49
Adventist Health Sonora				
	08/05/2021	Drug Testing Collection	5429 · T & D Safety & Education	32.00
	08/05/2021	Drug Testing Collection	5429 · T & D Safety & Education	120.00
	08/05/2021	Employment Physical	5612 · Customer Service Rep.	132.00
Total Adventist Health Sonora				284.00
Alpha Analytical Labs, Inc.				
	08/05/2021	Samples Testing - Lab Fees (May, June, & July)	5323 · Lab Fees	1,465.00
Total Alpha Analytical Labs, Inc.				1,465.00
American Fidelity Assurance				
	08/17/2021	Period 8/1/2121 - 8/31/2021 - Inv. 349773	5646 · 125 Plan	213.60
Total American Fidelity Assurance				213.60
AT & T				
	08/05/2021	Moke Hill Tank - Circuit	5432 · T & D Misc. Maint. Utilities	54.77
	08/05/2021	San Andreas Tank - Circuit	5432 · T & D Misc. Maint. Utilities	33.34
	08/05/2021	Hydro #3 - Garamendi - Phone Service	5432 · T & D Misc. Maint. Utilities	199.97
	08/05/2021	San Andreas Tank - Phone Service	5432 · T & D Misc. Maint. Utilities	198.10
Total AT & T				486.18
AT &T				
	08/05/2021	Hydro #3 - Garamendi - Phone Service	5432 · T & D Misc. Maint. Utilities	68.40
	08/31/2021	Telephone Service at Hydro#3 (Garamendi)	5432 · T & D Misc. Maint. Utilities	67.01
Total AT &T				135.41
AT&T				
	08/05/2021	Shop/Warehouse Internet/Phone	5432 · T & D Misc. Maint. Utilities	80.78
	08/31/2021	Phone/Internet Shop	5432 · T & D Misc. Maint. Utilities	90.77
Total AT&T				171.55
Bob Murray & Associates				
	08/31/2021	Professional Services - Executive Search, Clerical Support, etc.	5623 · Contract Services	1,295.63
Total Bob Murray & Associates				1,295.63
Brawner Automotive Repair				
	08/18/2021	Truck #007 - Dresser	5424 · T & D Equip. Repair & Oper.	1,416.81
Total Brawner Automotive Repair				1,416.81
Cal-Waste				
	08/18/2021	Dumpster/Removal at shop	5421 · T & D Maint. Mat. & Supp.	1,266.02
Total Cal-Waste				1,266.02
Cal PERS				

Calaveras Public Utility District
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August 2021

Name	Date	Memo	Account	Amount
	08/04/2021	Classic	5647 · OPEB - Retirement	2,135.82
	08/04/2021	PEPRA	5647 · OPEB - Retirement	1,708.54
	08/04/2021	Unfunded Liability-Classic	5647 · OPEB - Retirement	8,539.17
	08/04/2021	Unfunded Liability-PEPRA	5647 · OPEB - Retirement	62.25
	08/04/2021	Employer Contribution- PEPRA	5647 · OPEB - Retirement	1,691.78
	08/04/2021	Employer Contribution- Classic	5647 · OPEB - Retirement	2,130.01
	08/17/2021	Adminstrative Fee	5645 · Retirement-PERS (Admin)	200.00
	08/17/2021	GASB 68 Reporting Services Fee - PEPRA New Members	5647 · OPEB - Retirement	350.00
	08/17/2021	GASB 68 Reporting Services Fee - Misc. First Level	5647 · OPEB - Retirement	350.00
	08/17/2021	Health Insurance Premiums	5643 · Medical Insurance	18,662.08
	08/17/2021	Employer Contribution - Classic - PR 7/31/2021	5647 · OPEB - Retirement	2,193.93
	08/17/2021	Employer Contribution - PEPRA - PR 7/31/2021	5647 · OPEB - Retirement	1,451.97
	08/17/2021	Employer Contribution - PEPRA - PR 8/15/21	5647 · OPEB - Retirement	1,644.04
	08/17/2021	Employer Contribution - Classic - PR 8/15/21	5647 · OPEB - Retirement	2,130.01
Total Cal PERS				43,249.60
Calaveras Auto Supply				
	08/18/2021	Parts	5424 · T & D Equip. Repair & Oper.	167.03
Total Calaveras Auto Supply				167.03
Calaveras Enterprise				
	08/05/2021	Classified Ad for Open Position	5434 · T & D Fees	150.96
	08/06/2021	Clearwell Tank Project - Public Notice	1190 - Construction in Progress	396.00
Total Calaveras Enterprise				546.96
Calaveras Lumber Company				
	08/05/2021	Shop Supplies	5421 · T & D Maint. Mat. & Supp.	51.68
Total Calaveras Lumber Company				51.68
Calaveras Public Power Agency				
	08/18/2021	Licking Fork Pump Station	5230 · Utilitites Pumping Power	4.00
	08/18/2021	WTP, Glenco Booster Pump, and CPUD Warehouse	5432 · T & D Misc. Maint. Utilities	1,132.32
	08/18/2021	CPUD Office	5621 · Office Utilities	256.18
Total Calaveras Public Power Agency				1,392.50
Carbon Copy Inc.				
	08/05/2021	Copy Charges	5623 · Contract Services	62.79
	08/31/2021	Copy charges	5623 · Contract Services	81.46
Total Carbon Copy Inc.				144.25
Care Free Lawns				
	08/05/2021	Yard Maintenance	5623 · Contract Services	150.00
Total Care Free Lawns				150.00
Cole Tiscornia Construction				
	08/05/2021	Highway 49 & Pool Station Road Repar - Equipment Mini Excavator, Vac Trailer & Crew Truck	5422 · T & D Contract Services	2,345.00
	08/05/2021	Main Street, Moke Hill - Beverlyn Lane, San Andreas - Excavator, Walkbehind Saw, Dump Truck and ...	5422 · T & D Contract Services	5,702.00
	08/18/2021	Repair at Highway 49 & Pool Station Road	5422 · T & D Contract Services	1,980.00

Calaveras Public Utility District
Expenses by Vendor Detail
August 2021

Name	Date	Memo	Account	Amount
	08/18/2021	New service line & Paving at Prospect Street & Maretta Lane	5422 · T & D Contract Services	9,544.00
Total Cole Tiscornia Construction				19,571.00
Comcast				
	08/31/2021	Phone/Internet - Main Office	5621 · Office Utilities	452.22
Total Comcast				452.22
Computer Firemen				
	08/18/2021	Quickbooks troubleshooting and general system maintenance	5623 · Contract Services	150.00
Total Computer Firemen				150.00
David Sidle				
	08/06/2021	Credit Balance Refund Acct #319	4110 · Water Sales-Residential	285.73
Total David Sidle				285.73
De Lage Landen Financial Services Inc.				
	08/18/2021	Invoice #73404429 Printer/Copier Contract	5623 · Contract Services	83.66
Total De Lage Landen Financial Services Inc.				83.66
Dresser, Michael				
	08/05/2021	Water Facilities and Disinfection Classes	5429 · T & D Safety & Education	200.00
Total Dresser, Michael				200.00
Fischer, Merle				
	08/05/2021	July Health Ins.	5647 · OPEB - Retirement	496.18
	08/05/2021	August Health Ins.	5647 · OPEB - Retirement	496.18
Total Fischer, Merle				992.36
Foothill-Sierra Pest Control Inc.				
	08/05/2021	Pest Control - Main Office	5623 · Contract Services	125.00
Total Foothill-Sierra Pest Control Inc.				125.00
Grainger				
	08/05/2021	Gable Attic Ventilator	5421 · T & D Maint. Mat. & Supp.	74.53
	08/18/2021	Conduit Clamps	5421 · T & D Maint. Mat. & Supp.	23.11
	08/18/2021	Parts: fitting, pvc ball valve, inline valve, nipples, street elbow	5421 · T & D Maint. Mat. & Supp.	62.18
Total Grainger				159.82
Henwood Associates, Inc.				
	08/18/2021	Travel to project, install radio com. panel, wiring etc.	5424 · T & D Equip. Repair & Oper.	1,147.04
Total Henwood Associates, Inc.				1,147.04
Hill Rivkins Brown & Associates				
	08/31/2021	Professional Services - General Legal	5682 · Audit & Legal	5,516.50
Total Hill Rivkins Brown & Associates				5,516.50
Hobgood's Cleaning Service				
	08/31/2021	Cleaning Service - Main Office	5623 · Contract Services	160.00
Total Hobgood's Cleaning Service				160.00
Hunt & Sons Inc.				
	08/05/2021	Fuel for District Vehicles	5424 · T & D Equip. Repair & Oper.	934.90
	08/18/2021	Fuel for District vehicles	5424 · T & D Equip. Repair & Oper.	1,125.67

Calaveras Public Utility District
Expenses by Vendor Detail
August 2021

Name	Date	Memo	Account	Amount
	08/31/2021	Fuel for District Vehicles	5424 · T & D Equip. Repair & Oper.	826.89
Total Hunt & Sons Inc.				2,887.46
Iron Mountain				
	08/03/2021	Shredding	5620 · Materials & Supplies	97.33
Total Iron Mountain				97.33
Jackson Tire				
	08/05/2021	Tires for Truck #6	5424 · T & D Equip. Repair & Oper.	1,165.69
Total Jackson Tire				1,165.69
Lehigh Hanson				
	08/05/2021	3/4 Agg Base	5421 · T & D Maint. Mat. & Supp.	135.61
Total Lehigh Hanson				135.61
Lowe's				
	08/18/2021	Salt Crystals	5322 · Water Treatment Supplies	2,325.50
	08/18/2021	Refridgerator for Shop/Warehouse	5421 · T & D Maint. Mat. & Supp.	1,323.52
	08/18/2021	Supplies etc.	5421 · T & D Maint. Mat. & Supp.	583.59
Total Lowe's				4,232.61
Matrix Trust Company				
	08/31/2021	8/15/2021 457 Plan		300.00
	08/31/2021	8/31/2021 457 Plan		308.93
Total Matrix Trust Company				608.93
Morris, Ok Yon				
	08/12/2021	Previous owner acct #46 paid in error	4110 · Water Sales-Residential	409.85
Total Morris, Ok Yon				409.85
Motherlode Answering Service				
	08/05/2021	Answering Service	5623 · Contract Services	337.44
Total Motherlode Answering Service				337.44
Pace Supply				
	08/31/2021	Supplies - fittings, gauges, etc.	5421 · T & D Maint. Mat. & Supp.	652.43
	08/31/2021	Supplies - nipples, couplings, valves, stops, etc.	5421 · T & D Maint. Mat. & Supp.	10,143.30
Total Pace Supply				10,795.73
PG&E - ENERGY STATEMENT				
	08/05/2021	Main Office - Electricity	5621 · Office Utilities	8.11
	08/05/2021	San Andreas Tank - Electricity	5432 · T & D Misc. Maint. Utilities	45.92
	08/05/2021	Warehouse Light	5432 · T & D Misc. Maint. Utilities	35.32
	08/05/2021	Warehouse Light	5432 · T & D Misc. Maint. Utilities	35.32
	08/18/2021	Account # 0199675305-7 Hydro #3	5200 · Pipeline Hydro Cost	118.83
	08/18/2021	Account # 0116341977-1 Hydro #2	5200 · Pipeline Hydro Cost	149.11
	08/18/2021	Account # 8491352914-9 - Schaads Reservoir	5201 · Schaads Hydro Cost	487.04
	08/18/2021	Account #158008641-9 Ponderosa Hydro #1	5200 · Pipeline Hydro Cost	307.01
	08/31/2021	Electricity for Schaads Hydro	5201 · Schaads Hydro Cost	449.88
Total PG&E - ENERGY STATEMENT				1,636.54

Calaveras Public Utility District
Expenses by Vendor Detail
August 2021

Name	Date	Memo	Account	Amount
PGE-NON ENERGY INVOICES				
	08/18/2021	Hydro #1	5200 · Pipeline Hydro Cost	7.75
	08/18/2021	Hydro #2	5200 · Pipeline Hydro Cost	7.75
	08/18/2021	Hydro #3	5200 · Pipeline Hydro Cost	7.75
	08/18/2021	Schaads	5200 · Pipeline Hydro Cost	214.01
Total PGE-NON ENERGY INVOICES				237.26
Pollard Water				
	08/05/2021	Tools	5421 · T & D Maint. Mat. & Supp.	299.71
	08/31/2021	Serrated Jaw F/Mtr Wrench	5421 · T & D Maint. Mat. & Supp.	14.80
Total Pollard Water				314.51
Postmaster				
	08/26/2021	August Billing	5622 · Postage & Box Rent	700.00
Total Postmaster				700.00
Progressive Print Solutions				
	08/09/2021	Business Cards	5620 · Materials & Supplies	387.63
Total Progressive Print Solutions				387.63
Rutledge Security Systems, LLC				
	08/31/2021	Intrusion Alarm with Cellular	5421 · T & D Maint. Mat. & Supp.	729.00
Total Rutledge Security Systems, LLC				729.00
San Andreas Print Shop				
	08/31/2021	Postage - Federal Express	5622 · Postage & Box Rent	47.16
Total San Andreas Print Shop				47.16
San Andreas Sanitary District				
	08/05/2021	ACCT. #0947 & 1027	5432 · T & D Misc. Maint. Utilities	97.04
	08/05/2021	ACCT. #0947 & 1027	5621 · Office Utilities	97.04
	08/31/2021	Sewer for Warehouse	5432 · T & D Misc. Maint. Utilities	97.04
	08/31/2021	Sewer for Main Office	5621 · Office Utilities	97.04
Total San Andreas Sanitary District				388.16
SEIU Local 1021				
	08/09/2021	July 15, 2021 Pay Period	2322 · SEIU Union Dues	373.08
	08/09/2021	July 31, 2021 Pay Period	2322 · SEIU Union Dues	344.64
	08/09/2021	August 15, 2021 Pay Period	2322 · SEIU Union Dues	354.98
	08/31/2021	August 31, 2021 Pay Period	2322 · SEIU Union Dues	354.98
Total SEIU Local 1021				1,427.68
Sender's Market Inc.				
	08/05/2021	Truck #8 & Shop Equipment	5421 · T & D Maint. Mat. & Supp.	33.85
	08/05/2021	Cement and Drylok Fast Plug	5421 · T & D Maint. Mat. & Supp.	62.17
	08/05/2021	Supplies for Shop	5421 · T & D Maint. Mat. & Supp.	250.24
	08/09/2021	Parts, cinch door, screws, adapter and elbow	5421 · T & D Maint. Mat. & Supp.	97.25
Total Sender's Market Inc.				443.51
Staples Credit Plan				

Calaveras Public Utility District
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August 2021

Name	Date	Memo	Account	Amount
	08/05/2021	Office Supplies	5620 · Materials & Supplies	120.51
	08/05/2021	Cleaning Supplies	5620 · Materials & Supplies	16.32
	08/05/2021	Cleaning Supplies	5620 · Materials & Supplies	5.42
	08/05/2021	Office Supplies	5620 · Materials & Supplies	25.29
	08/05/2021	Office Supplies - Toner for Lexmark Printer	5620 · Materials & Supplies	546.96
Total Staples Credit Plan				714.50
Technical Systems Inc.				
	08/05/2021	San Andreas Tank Controls	5623 · Contract Services	6,400.00
Total Technical Systems Inc.				6,400.00
Treat's General Store				
	08/09/2021	Parts: Nipples, connectors, electrical, valves, ice, etc.	5421 · T & D Maint. Mat. & Supp.	518.58
Total Treat's General Store				518.58
Union Democrat				
	08/09/2021	Advertisement for Water Distribution Treatment Operator	5421 · T & D Maint. Mat. & Supp.	516.50
Total Union Democrat				516.50
Upper Mokelumne River Watershed Authority				
	08/31/2021	FY 2022 Assessment	5683 · Dues, Subscriptions, Fees	12,660.00
Total Upper Mokelumne River Watershed Authority				12,660.00
USA Blue Book				
	08/31/2021	1/4 NPT Adapter for ifm-efector flow switch	5421 · T & D Maint. Mat. & Supp.	40.62
Total USA Blue Book				40.62
USA of Northern California and Nevada				
	08/09/2021	Annual Membership Fee	5434 · T & D Fees	919.08
Total USA of Northern California and Nevada				919.08
Verizon Wireless				
	08/05/2021	Cell Phone Charges	5432 · T & D Misc. Maint. Utilities	1,139.60
Total Verizon Wireless				1,139.60
Volcano Telephone				
	08/06/2021	Schaads Hydro	5201 · Schaads Hydro Cost	52.91
	08/06/2021	Hydro #2 MCV	5200 · Pipeline Hydro Cost	52.91
	08/06/2021	WTP	5322 · Water Treatment Supplies	51.34
	08/06/2021	WTP	5322 · Water Treatment Supplies	109.86
	08/06/2021	Schaads Hydro	5201 · Schaads Hydro Cost	93.38
	08/06/2021	WTP	5322 · Water Treatment Supplies	63.01
	08/06/2021	Hydro #3 Ponderosa	5200 · Pipeline Hydro Cost	52.91
	08/06/2021	Pump Station	5230 · Utilitites Pumping Power	52.91
	08/31/2021	Telephone Service - Acct. #2092934667 - Hydro #2 MCV	5200 · Pipeline Hydro Cost	52.91
	08/31/2021	Telephone Service - Acct. #2092937680 - Hydro #2 MCV	5200 · Pipeline Hydro Cost	52.91
	08/31/2021	Telephone Service - Acct. #2095559070 - Schaads	5201 · Schaads Hydro Cost	93.38
	08/31/2021	Telephone Service - Acct. #2092937959 - Schaads	5201 · Schaads Hydro Cost	52.91
	08/31/2021	Telephone Service - Acct. #2092937188 - Pump Station	5230 · Utilitites Pumping Power	52.91

Calaveras Public Utility District
Expenses by Vendor Detail
August 2021

Name	Date	Memo	Account	Amount
	08/31/2021	Telephone Service - Acct. #2092930000 - WTP	5322 · Water Treatment Supplies	67.25
	08/31/2021	Telephone Service - Acct. #2092937607 - WTP	5322 · Water Treatment Supplies	51.13
	08/31/2021	Telephone Service - Acct. #2092937600 - WTP	5322 · Water Treatment Supplies	109.86
Total Volcano Telephone				1,062.49
Weber, Ghio & Associates				
	08/09/2021	Clearwell Tank Project Administration & Management	1190 - Construction in Progress	684.00
		Clearwell Tank Project Design	1191 - Construction in Progress	22,599.00
		Clearwell Filter-to-Waste Design	1192 - Construction in Progress	1,429.50
		Electrical & Instrument Design	1193 - Construction in Progress	30,100.00
Total Weber, Ghio & Associates				54,812.50
Wells Fargo Bank - C. Bear				
	08/06/2021	Supplies	5620 · Materials & Supplies	12.21
	08/06/2021	Shred	5623 · Contract Services	98.73
	08/06/2021	Office Phone Accessories	5620 · Materials & Supplies	37.50
	08/06/2021	QuickBooks-Multi User	5620 · Materials & Supplies	250.00
	08/06/2021	QuickBooks-Monthly Chrg	5623 · Contract Services	70.00
	08/06/2021	Zoom	5623 · Contract Services	16.55
	08/09/2021	Postage	5622 · Postage & Box Rent	100.00
	08/09/2021	Routers for Shop - Allows W/Os to be printed at shop	5421 · T & D Maint. Mat. & Supp.	428.98
	08/09/2021	Lunch for staff training	5429 · T & D Safety & Education	61.71
	08/09/2021	Advertisement for Water Distribution/Treatment Operator	5683 · Dues, Subscriptions, Fees	200.00
	08/09/2021	Zoom - Board Meetings	5683 · Dues, Subscriptions, Fees	16.55
	08/09/2021	Quickbooks	5683 · Dues, Subscriptions, Fees	70.00
	08/09/2021	Finance Charge	5683 · Dues, Subscriptions, Fees	9.00
Total Wells Fargo Bank - C. Bear				1,371.23
Wells Fargo Bank - M Roberts				
	08/09/2021	Power Cord for Broken Pump	5421 · T & D Maint. Mat. & Supp.	69.71
Total Wells Fargo Bank - M Roberts				69.71
				193,159.52

ITEM 8

CALAVERAS PUBLIC UTILITY DISTRICT

MEMORANDUM

SEPTEMBER 14, 2021

TO: BOARD OF DIRECTORS

FROM: JOHN KINGSBURY, INTERIM GENERAL MANAGER

SUBJECT: FERC – ANNUAL INSPECTION AND PART 12D SAFETY INSPECTION AND REVIEW FOR THE SUBJECT DAM IN THE MIDDLE FORK HYDROELECTRIC PROJECT

This is to consider and authorize staff to execute a contract with Slate Geotechnical Consultants, Inc (SLATE) to perform the required FERC (Federal Energy Regulatory Commission) Part 12D safety inspection and review for the subject dam in the Middle Fork Hydroelectric Project (Project). This is also to consider a task order for Rich Sanchez, GEI Consultants. Mr. Sanchez will continue in his capacity as CPUD's Dam Safety Engineer to assist and facilitate the outstanding FERC issues.

The Board will recall the May 11, 2021 Dam Safety PowerPoint presentation (included in this packet) by Rich Sanchez discussion the several dam safety delinquencies. Mr. Sanchez will attend the Board meeting to refresh this issue with the Board and support staff's request to execute a contract with SLATE, as well as, the change order for Mr. Sanchez.

Slate has submitted an extensive scope of work and cost estimate to provide Independent Consultant (IC) services for performing FERC Part 12D safety inspection and review for the subject dam in the Middle Fork Hydroelectric Project (Project). The co-ICs for this project will be Marc Ryan, PE, GE of Slate Geotechnical Consultants, Inc. (Slate) and Wayne Edwards of W.D. Edwards Consulting, LLC.

The estimated cost for performing the scope of work described herein is $57,080. A detailed estimate showing the breakdown of costs by task and staff hours is presented in the spreadsheet included in your Board packet. The schedule has slid proportionate to the July start date. The cost estimate presented in this proposal remains the same but assumes that the site inspection and PFMA review session can be completed in two days. The work will be invoiced on a Time-and-Materials basis and the total budget amount will not be exceeded without prior Board approval.

The Scope of Work under this proposal is limited to a Part 12D Dam Safety Inspection and reporting for Middle Fork dam.

Further, as required by FERC, the Middle Fork Dam must have an annual inspection. FERC will be inspecting Middle Fork Dam this year, which is scheduled for September 30, 2021. Mr. Sanchez and staff will need to join FERC during the inspection. Staff will need to assist with the usual items: i.e., open entry gates, operate valves as required by FERC, take piezometer level/seepage readings, open the powerhouse doors, review log book, etc.

On September 7, 2021, FERC informed CPUD of the outstanding FERC items still needed from CPUD. The FERC representative will put the outstanding items in writing and a copy will be shared with the Board.

Recommendation:

1. Authorize staff to execute the contract with Slate Geotechnical Consultants, Inc in the amount of $57,080 to perform tasks to satisfy FERC Part 12D requirements
2. Approve the task order with Rich Sanchez to assist and facilitate to completion the remaining outstanding dam safety issues. The “not to exceed” and scope will be provided either prior to or at the Board meeting.

SLATE
GEOTECHNICAL CONSULTANTS

June 8, 2021
Slate Project No 21-PRO-34

Mr. John Kingsbury
General Manager
Calaveras Public Utility District

Subject: Proposal for FERC Part 12D Independent Consultant Services
Middle Fork Dam
Middle Fork Project, FERC Project No. 7506-CA

Dear Mr. Kingsbury:

In response to your request for proposals, Slate Geotechnical Consultants, Inc. is pleased to submit this scope of work and cost estimate to provide Independent Consultant (IC) services for performing FERC Part 12D safety inspection and review for the subject dam in the Middle Fork Hydroelectric Project (Project). The co-ICs for this project will be Marc Ryan, PE, GE of Slate Geotechnical Consultants, Inc. (Slate) and Wayne Edwards of W.D. Edwards Consulting, LLC.

BACKGROUND

Middle Fork dam is part of Calaveras Public Utility Districts (CPUD) Middle Fork Hydroelectric Project (FERC No. 7506-CA). The dam is located in Calaveras County on the Middle Fork Mokelumne River, approximately five miles east of West Point, California.

The Project structures include a 400-foot-long earth embankment, a 500-foot-long earth dike, and a reinforced concrete chute spillway. Within the embankment there is a 12-inch diameter upper outlet pipe and a 24-inch diameter main outlet pipe. Between the embankment and the chute spillway is a 30-inch diameter penstock that leads to a powerhouse containing three turbines powering two generators.

The dam is classified as a “High Hazard Potential” structure under the FERC guidelines.

The spillway structure is a fixed-crest chute of trapezoidal section with vertical training walls. The chute spillway is constructed of reinforced concrete, has a slope that varies from eighteen to thirty-three percent, and extends approximately 475 feet in length over a drop of approximately 107 feet.

PROJECT TEAM QUALIFICATIONS

The project team will be led by co-ICs Marc Ryan, PE, GE and Wayne Edwards, PE. We have selected this combination of experts because of their experience in technical areas of potential concerns for this aging dam and their experience working together on similar Part 12D projects. They have worked together as co-IC’s on more than 10 projects in the last 5 years. Marc Ryan has performed investigations, evaluations, and remedial design for more than 50 earth and rockfill dams in California. Wayne Edwards was selected because of his expertise in hydraulics and hydrology, conveyance structures, and spillways.

Marc Ryan has been an IC or co-IC for more than fifteen FERC Part 12D Review-of-Safety reports and has participated as a core team member on more than 17 other Part 12D safety inspection projects. He has facilitated PFMA workshops for thirteen dams as well as six additional spillway-focused PFMA

sessions. Marc has managed and conducted dam safety inspections, geotechnical investigations, and engineering studies for earthfill and rockfill dams around the world. He has also provided geotechnical characterization studies for concrete dams, intake towers, spillway structures, spillway gates, and other appurtenant structures.

Wayne Edwards has been an IC or co-IC for dozens of FERC Part 12D Review-of-Safety reports over the last 10 years. Wayne is well versed in instrumentation and the interpretation of spillway and earth dam performance including analysis of trends and evaluation of expected behavior.

Justin Phalen, PE, GE of Slate will act as the PFMA recorder and provide technical support to the ICs. Justin has participated in more than a dozen Part 12 Inspections and PFMA sessions. Mr. Phalen has more than 18 years of professional experience managing and executing significant geotechnical infrastructure projects. His engineering experience focuses on the evaluation of the geotechnical and geologic hazard exposure of earth dams and levee systems. His areas of expertise include the exploration, evaluation, and mitigation of seepage and seismic stability issues for earth dams. His relevant work experience includes performing subsurface investigations, characterizing embankment and foundation materials for strength and seepage, performing seepage and stability analysis, and preparing basis of design reports.

In addition to the co-ICs, our team can utilize additional subject matter experts (SMEs) from Slate as needed for specific subject matter expertise, including:

Courtney Johnson, PG, CEG of Slate will provide as-needed geologic and seismic support and act as a subject matter expert (SME) for the PFMA session. She has performed seismic hazard studies and conducted geologic evaluations for a variety of projects located throughout California, the United States, and abroad. Her project experience includes assessment of earthquake-related geologic hazards (e.g., surface fault rupture, slope stability, liquefaction, and related phenomena), characterization of seismic sources, and running computer models to calculate probabilistic ground motions and probabilistic fault rupture hazards.

Copies of resumes of the proposed co-ICs are enclosed with this letter. Resumes of the proposed SMEs can be provided upon request.

SCOPE OF WORK

At the start of the project, we will review existing data and reports on the dam and appurtenant structures, especially information developed since the last Part 12D Safety Inspection Report in 2016. The ICs will facilitate the PFMA review session and prepare the addendum to the PFMA report to document the discussions and changes to the PFMs.

The scope of our work will include the following tasks.

Task 1 – Review STID and Project Information

We will participate in the 90-day pre-call with FERC to plan the details of the site inspection and PFMA workshop. During this call, we will make note of any access issues for the inspection and any specific concerns that FERC may have about the project and the Part12D reports. The remainder of the proposed project scope that follows assumes that FERC concurs with our project approach and assumptions regarding the time required for the inspection and PFMA review session.

Based on our review of the available project information, including the FERC letter dated January 13, 2021, we expect the ICs to perform a detailed review of the following information in preparation for the PFMA review:

- Comprehensive Spillway Assessment Report (including spillway focused PFMA)

- 1985 boring logs to verify the composition of the embankment materials and the potential for liquefaction.

We anticipate that CPUD will provide the pertinent project materials including the most recent Part 12D report, the Supporting Technical Information Document (STID), the Dam Safety Surveillance Monitoring Plans (DSSMP) and 2020 Dam Safety Surveillance and Monitoring Report (DSSMR). Additional information needed for the evaluation includes:

- Project drawings
- Previous Part 12D reports
- Previous Surveillance and Monitoring Plans and Surveillance and Monitoring Reports
- Operation and maintenance records
- Dam and reservoir operating procedures including Standard Operating Procedures (SOPs) and Emergency Operating Procedures (EOPs)
- Owners Dam Safety Program (ODSP)
- Geology and seismicity studies
- Stability analyses and supporting data
- Probable Maximum Flood and Inflow Design Flood reports
- Spillway Inspection Reports
- Dam break and inundation studies
- Emergency Action Plans
- Status of previous Part 12D recommendations
- FERC annual operations inspection reports and other dam safety-related correspondence since last Part 12D report
- Division of Safety of Dams (DSOD) correspondence since the last Part 12 report

Task 2 – Part 12D Field Inspection
The ICs will conduct the Part 12D field inspection following the review of project information, the STID data, and the existing PFMA report. The inspection will focus on potential concerns identified in the previous PFMA reports and recommendations from the 2016 Part 12D Report.

Visible and accessible portions of the dam, abutments, and appurtenant structures will be inspected for evidence of leakage, concrete deterioration, settlement, and joint offsets. Attention will be paid to any improvements or maintenance done since the last Part 12D report. The scope of the inspection will be limited to visible elements only and excludes covered, buried, or hidden conditions. The inspection will not include any special investigations, geotechnical investigations, or materials testing. Inspection notes and inspection photos will be prepared at the end of the field inspections. It is assumed that CPUD will prepare any necessary health and safety plans for the field inspections and coordinate access at the site including confined space entry, as applicable.

We propose to perform the Part 12D inspection immediately before conducting the PFMA review session. We estimate that the field inspection can be completed in a half day, not including travel time to and from the project site.

Task 3 – PFMA Review Session
We have reviewed a summary of the existing PFMA report and FERC's comments regarding their expectations for the PFMA sessions, as discussed in their letter dated January 13, 2021. We concur with FERC's assessment the existing PFM report adequately describes the PFMs and is considered complete.

We will review the classifications of the 33 existing PFMs and make note of any changes to the categorizations. We will also present the results of our review of the liquefaction susceptibility evaluation for the embankment material and revise the description and classification of PFM 10B accordingly. We

will also discuss other issues that have not been developed as PFMs and develop those that that the group recommends.

Except as noted above, we do not anticipate making any significant changes to the descriptions of the existing potential failure mode scenarios, as they already appear to have detailed descriptions of the initiation, progression, and eventual failure scenarios. We do note that at the time of the last PFMA review session and the spillway focused PFMA session, all failure scenarios were developed to a point where they led to an uncontrolled release of the reservoir. During the proposed PFMA workshop, we may also develop PFMs that consider the failure of critical elements or features to perform as designed, even if they do not lead to an uncontrolled release of the reservoir.

We estimate that the PFMA review session can be completed in 1½ days.

The ICs will prepare an Addendum to the PFMA report to document the discussions and any changes to the PFMs and any new PFMs that are developed. The Addendum to the PFMA report can then be added to Section 1 of the STID.

Task 4 – Prepare Part 12D Report
The ICs will evaluate the pertinent project materials and STID information reviewed in Task 1, the information obtained during the field inspection, and the results of the PFMA review session to evaluate the adequacy of current stability analyses, spillway capacity studies, and existing surveillance and monitoring programs. We will provide recommendations for modifications to the surveillance and monitoring program if warranted by the findings of the field inspection.

The Part 12D safety inspection report will be prepared consistent with FERC requirements described in their letter requiring this work. The report will contain the following items, as required in the FERC Part 12D Safety Inspection Report Outline in Appendix H of Chapter 14 - Monitoring the Performance of Dams:

1. Findings and Recommendations
2. Project Description
3. Discussion of Potential Failure Modes Analysis Report
4. Surveillance and Monitoring with Respect to Potential Failure Modes
5. Field Inspection
6. Operations and Maintenance Programs Relative to Potential Failure Modes
7. Assessment of Supporting Technical Information Documents
8. Appendices

An electronic copy of the draft report will be submitted to CPUD for review in accordance with the project schedule shown below. The ICs will meet with CPUD or hold a conference call to discuss findings, conclusions, and recommendations in the draft report. We adhere to the philosophy that all recommendations should clearly and concisely describe a corrective action, add value to the dam safety program, can be reasonably accomplished, and are based on an accurate understanding of current conditions at the dam. If any of these conditions are not met, we will either revise or eliminate the recommendation prior to the final report.

After receiving comments, we will incorporate any comments and submit the final Part 12D report to CPUD, so that CPUD can submit the final report to the FERC by the filing deadline (see below). We will submit three hard copies of the report along with a CD containing electronic copies of the final report in PDF format.

SCHEDULE

The final project schedule has not yet been established and will be contingent on CPUD's request for a schedule extension from FERC. Based on our current understanding, we have tentatively assumed the following preliminary milestone schedule.

Description	Proposed Dates
Obtain Notice to Proceed	July 12, 2021
Perform Part 12D Inspections and PFMA Review (2 days)	Week of Oct. 4, 2021
Submit Draft PFMA Report	November 12, 2021
Submit Draft Part 12D Reports	February 10, 2022
Receive Part 12D Report Comments	February 24, 2022
Submit Final Part 12D Report	March 10, 2022

COST ESTIMATE

Our estimated cost for performing the scope of work described above is $57,080. A detailed estimate showing the breakdown of costs by task and staff hours is presented in the attached spreadsheet. The schedule and cost estimate presented in this proposal assumes that the site inspection and PFMA review session can be completed in two days. The work will be invoiced on a Time-and-Materials basis and the total budget amount will not be exceeded without prior approval.

LIMITATIONS AND CLOSURE

The Scope of Work under this proposal is limited to a Part 12D Dam Safety Inspection and reporting for Middle Fork dam. CPUD may request that Slate provide additional consultant services. Such additional services shall be subject to a separate request for additional authorization to perform the additional services as a change order to this agreement.

We look forward to working with you on this project. Please do not hesitate to call the undersigned if you have any questions or need any additional information.

Sincerely yours,

Slate Geotechnical Consultants, Inc.

Marc J. Ryan
President and Principal Engineer
(510) 520-0566
mryan@slategeotech.com

cc: Wayne Edwards, PE – W.D. Edwards Consulting, LLC.
Rich Sanchez, PE – Chief Dam Safety Engineer

Attachments: Budget Backup Detail
Resumes for Proposed ICs

Mr. John Kingsbury
Part 12D Independent Consultant Services
FERC Project P7506
June 8, 2021

Budget Backup Detail
FERC Part 12D Independent Consultant Services
Middle Fork Dam

		Slate Geotechnical											W.D. Edwards Consulting, LLC					10%	
		Principal Engineer IC		PFMA Recorder /Geotech SME		Geology SME		Staff Engineer		Subtotal Labor		Expenses	Principal Engineer IC		Subtotal Labor		Expenses	Markup	TOTAL COST
	Task	Rate ($/hr) Hours	$ 275 Cost	Rate ($/hr) Hours	$ 265 Cost	Rate ($/hr) Hours	$ 265 Cost	Rate ($/hr) Hours	$ 125 Cost	Hours	Cost		Rate ($/hr) Hours	$ 225 Cost	Hours	Cost			
1	**Review STID and Project Information**	12	$ 3,300	0	$ -	4	$ 1,060	8	$ 1,000	24	$ 5,360	$ 250	8	$ 1,800	8	$ 1,800	$ -	$ 180	$ 7,615
	Review STID and New Reports	8	$ 2,200		$ -	4	$ 1,060		$ -	12	$ 3,260		8	$ 1,800	8	$ 1,800		$ 180	$ 5,240
	Review DSOD Files for Boring Logs	4	$ 1,100		$ -		$ -	8	$ 1,000	12	$ 2,100	$ 250		$ -	0	$ -		$ -	$ 2,375
														$ -	0	$ -		$ -	$ -
2	**Part 12D Field Inspection**	8	$ 2,200	8	$ 2,120	0	$ -	0	$ -	16	$ 4,320	$ 600	8	$ 1,800	8	$ 1,800	$ 300	$ 210	$ 7,290
	Travel/Mob	4	$ 1,100	4	$ 1,060		$ -		$ -	8	$ 2,160	$ 600	4	$ 900	4	$ 900	$ 300	$ 120	$ 4,140
	Field Inspections (1/2 day at 10 hours)	4	$ 1,100	4	$ 1,060		$ -		$ -	8	$ 2,160		4	$ 900	4	$ 900		$ 90	$ 3,150
3	**PFMA Review and Report**	16	$ 4,400	32	$ 8,480	4	$ 1,060	16	$ 2,000	68	$ 15,940	$ 600	16	$ 3,600	16	$ 3,600	$ 300	$ 390	$ 20,890
	PFMA Preparation	2	$ 550	12	$ 3,180		$ -		$ -	14	$ 3,730		2	$ 450	2	$ 450		$ 45	$ 4,225
	PFMA Workshop (1.5 days)	12	$ 3,300	12	$ 3,180	4	$ 1,060		$ -	28	$ 7,540	$ 600	12	$ 2,700	12	$ 2,700	$ 300	$ 300	$ 11,500
	PFMA Report	2	$ 550	8	$ 2,120		$ -	16	$ 2,000	26	$ 4,670		2	$ 450	2	$ 450		$ 45	$ 5,165
4	**Prepare Part 12D Reports**	28	$ 7,700	0	$ -	6	$ 1,590	48	$ 6,000	82	$ 15,290	$ 500	22	$ 4,950	22	$ 4,950	$ -	$ 495	$ 21,285
	Draft	24	$ 6,600		$ -	4	$ 1,060	40	$ 5,000	68	$ 12,660		20	$ 4,500	20	$ 4,500		$ 450	$ 17,610
	Final	4	$ 1,100		$ -	2	$ 530	8	$ 1,000	14	$ 2,630	$ 500	2	$ 450	2	$ 450		$ 45	$ 3,675
	TOTAL	64	$ 17,600	40	$10,600	14	$ 3,710	72	$ 9,000	190	$ 40,910	$ 1,950	54	$ 12,150	54	$ 12,150	$ 600	$ 1,275	$ 57,080

SLATE
GEOTECHNICAL CONSULTANTS

MARC J. RYAN, PE, GE

President and Principal Engineer

Mr. Ryan's geotechnical engineering experience has specialized in earthquake engineering for dams, nuclear power plants, and hospitals. He has managed and conducted geotechnical investigations and engineering studies for structures and dams around the world. He specializes in the characterization of site-specific design ground motions using probabilistic and deterministic approaches, assessments of geotechnical and geologic hazards for dams and levees (e.g., surface fault rupture, liquefaction and related phenomena, and slope instability and landsliding), and hazard mitigation for new and existing facilities. His practice is geographically diverse and his experience extends throughout California, the United States, as well as worldwide. He has managed studies under the jurisdiction of the OSHPD, California Department of Water Resources – Division of Safety of Dams (DSOD), the Federal Energy Regulatory Commission (FERC), the Nuclear Regulatory Commission, and Swiss Federal Nuclear Safety Inspectorate (ENSI).

Mr. Ryan has managed geotechnical design and construction projects, field testing services, and peer review. His responsibilities as a Principal Engineer include quality control, interaction with regulators, and providing technical oversight to all aspects of project delivery. His experience on geotechnical studies includes subsurface investigations, geotechnical laboratory testing and analysis of soil samples, geotechnical engineering analyses, and preparation of project documentation.

REGISTRATIONS

Geotechnical Engineer
CA | No. GE2732

Professional Engineer
CA | No. C 59200
NV | No. CE 21969

EDUCATION

M.S. | Geotechnical Engineering | 1997
University of California, Berkeley

B.S. | Civil Engineering | 1995
Purdue University

ASSOCIATIONS

United States Society on Dams (USSD)

American Society of Civil Engineers (ASCE)

Association of State Dam Safety Officials (ASDSO)

Geotechnical Extreme Event Reconnaissance (GEER) Association

RELEVANT PROJECT EXPERIENCE

SEISMIC RETROFIT OF UPPER BLUE LAKE DAM CONSTRUCTION ENGINEERING SUPPORT

Confidential Utility Client | Alpine County, CA

Principal in Charge of construction engineering support provided during the construction of the upstream buttress and low-level outlet extension. Slate provided full time, on-site construction engineering support for the duration of the project. The work included excavation of a portion of the upstream slope, preparing the foundation for the new rockfill buttress and the concrete low-level outlet extension, placement of filter material between the existing embankment and the new rockfill, placement of new rockfill, and disposal of waste materials. Slate provided daily field reports, interaction with FERC and DSOD, field engineering services, and prepared the monthly and final project status reports.

CALERO DAM SEISMIC RETROFIT PROJECT

Owner: Santa Clara Valley Water District | Prime: HDR | San Jose, CA

Principal in charge for the geotechnical and geologic tasks for the design of the seismic retrofit for Calero Dam. The project includes the construction of a downstream stability buttress, raising the crest of the main and auxiliary dams, and the construction of a new sloping intake and outlet tunnel. Coordinated and oversaw the drilling and rock coring program for the entire project. The investigation included both land-based and over-water drilling using mud rotary and rock coring methods. Extensive downhole geophysics was performed to characterize the rock mass for the design of the new outlet tunnel, buttress foundation excavation, and on-site borrow areas. Oversaw the preparation of the geotechnical data report that will serve as the basis of the design for the project.

FERC PART 12D INDEPENDENT CONSULTANT FOR PHILBROOK, ROUND VALLEY, LAKE ALMANOR, BUTT VALLEY, AND BELDEN FOREBAY DAMS

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for five earthfill dams located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the site.

LOWER BLUE LAKE DAM RETROFIT DESIGN
Confidential Utility Client | Alpine County, CA

Engineer-Of Record for the preliminary engineering and design phases of a retrofit to a 40-foot high embankment dam with a history of through seepage issues. The project includes developing several retrofit alternatives for mitigating the poor seepage condition, performing comparative analysis and selection of the preferred alternatives, developing design criteria, providing cost estimates and schedules, and delivering Approved for Construction plans and specifications to the client. Responsible for overall development, QA/QC, and delivery of the project preliminary and final design phases to the satisfaction of the client. Project is planned for construction in 2022.

DESIGN OF SEEPAGE COLLECTION AND MONITORING SYSTEM FOR INDIAN VALLEY DAM
Yolo County Flood Control & Water Conservation District | Lake County, CA

Project manager and lead engineer for the design of a new seepage collection system for 207-ft high embankment dam. Seepage from the maximum section of the Main Dam is not directly observed or monitored; it is conveyed though a 6-inch diameter perforated drain pipe that was rerouted to flow into the foundation drains for the powerhouse structure as part of the 1983 hydroelectric development. Flow from this drain is mixed with flow from the powerhouse building foundation, and flow from the drains under the outlet works downstream gallery before it is routed into the pervious backfill behind the right wall of the stilling basin. The purpose of the seepage alternatives collection study is to develop and evaluate alternatives to collect and monitor seepage from the different areas of the Main Dam prior to discharge into the stilling basin. We developed several different alternatives and recommended a preferred alternative to meet the Districts needs.

MILL POND DAM SEISMIC RETROFIT DESIGN
Georgia-Pacific Companies | Fort Bragg, CA

Principal engineer for the design of the seismic retrofit for an earthfill embankment dam located adjacent to the Pacific Ocean within the jurisdiction of the California Coastal Commission. The embankment dam was originally built to store process water associated with the Georgia-Pacific paper mill, and after the paper mill was decommissioned the California Department of Toxic Substance Control (DTSC) and Division of Safety of Dams (DSOD) required that the dam be seismically retrofit to mitigate the known liquefaction hazard in the embankment and foundation before the dam could be taken out of DSOD jurisdiction. The project includes designing cement deep-soil mix system to mitigate liquefaction in the foundation and a downstream stability berm to reduce the expected seismic deformations. The project also includes constructing a cutoff wall in the reservoir to create two smaller reservoirs that can be removed from DSOD jurisdiction, thereby reducing the long-term operations and maintenance requirements for the site.

DESIGN AND CONSTRUCTION OF SEEPAGE MITIGATION FOR THE SEA RANCH DAM
The Sea Ranch Company | Sonoma County, CA

Engineer of Record and Resident Engineer for the design and construction of seepage and stability improvements for The Sea Ranch Dam. The project included performing geotechnical investigation and analysis to evaluate seepage through an existing earth embankment dam. Based on the results of the investigation and analysis, developed final plans and specifications for a seepage cut off trench and collection system. The plans and specifications were reviewed and approved by the CA DSOD and an independent technical reviewer. Also served as the Resident Engineer during construction of the improvements and was lead all interaction between the DSOD and the Owner.

CHIEF DAM SAFETY ENGINEER FOR INDIAN VALLEY DAM
Yolo County Flood Control & Water Conservation District | Yolo County, CA

FERC Approved contract Chief Dam Safety Engineer for a 207-foot high zoned earthfill embankment dam. Indian Valley Dam and Reservoir is a multi-purpose irrigation, water supply, and flood control facility owned and operated by Yolo County Flood Control & Water Conservation District. Releases from the dam also generate hydroelectric power under FERC Project 4066-CA. The project is located in Lake County, California, on the North Fork of Cache Creek, approximately 13 miles upstream of the confluence with the main stem of Cache Creek, and approximately 6 miles northeast of the Town of Clearlake. The project is regulated by both FERC and the California Department of Water Resources, Division of Safety of Dams (DSOD). Responsibilities include review and approval of all dam safety surveillance and monitoring data, review and update of emergency action and security plans, and updating and submitting general FERC compliance documentation.

FERC PART 12D INDEPENDENT CONSULTANT FOR WISE FOREBAY DAM, ROCK CREEK DAM, HALSEY FOREBAY DAM, AND HALSEY AFTERBAY DAM

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for three earthfill dams and one composite earthfill/concrete arch dam located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

CRANE VALLEY DAM SEISMIC EVALUATION

Confidential Utility Client | Madera County, CA

Performed two-dimensional static and dynamic stability analyses on selected cross sections across the dam; also performed subsequent deformation analyses using dynamic response from QUAD4M. Evaluated design alternatives for remedial measures.

FERC PART 12D INDEPENDENT CONSULTANT FOR INDIAN VALLEY DAM

Yolo County Flood Control & Water Conservation District | Yolo County, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for a 207-foot high zoned earthfill embankment dam. The key aspects of the project were the interpretation of data from aging instruments, the evaluation of the surface fault rupture potential, and deficiencies in the spillway slabs. The PFMA session included a detailed discussion of any potential failure modes within the spillway. Also participating in the Table Top Emergency Action Plan (EAP) exercise. The exercise included discussion of the potential failure scenarios and coordination among all of the local emergency responders.

DIRECTORS SAFETY REVIEW BOARD FOR CASTAIC, CRAFTON HILLS, PERRIS DAMS

CA Dept. of Water Resources | Los Angeles and San Bernardino Counties, CA

Member of Directors Safety Review Board (DSRB) for the state-mandated periodic safety review of three large earth dams. Castaic Dam is a 340-ft high earth and rockfill dam that is the terminus for the West Branch of the California Aqueduct. Crafton Hills Dam is a 95-ft high zoned earthfill dam that is part of the East Branch extension of the California Aqueduct. As a Board Member of the DSRB, the scope of work includes reviewing the background information for the dams, participating in the inspection of the facilities, participating in the DSRB meetings, and reviewing the draft DSRB summary reports. The inspections include the dams, outlet works, penstocks, tunnels, and spillways, including the spillway drainage gallery at Castaic Dam.

FERC PART 12D INDEPENDENT CONSULTANT FOR UPPER BLUE LAKE DAM, UPPER BEAR RIVER DAM, AND LOWER BEAR DAM

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for three earth and rockfill dams located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

FERC PART 12D INDEPENDENT CONSULTANT FOR CAMP FAR WEST DAM

South Sutter Water District | Placer County, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for earth dam located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet works, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

FERC PART 12D INDEPENDENT CONSULTANT FOR JACKSON CREEK DAM

Jackson Valley Irrigation District | Ione, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for earth dam located in the foothills of the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet works, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

UPDATED SEISMIC STABILITY EVALUATION FOR INDIAN VALLEY DAM

Yolo County Flood Control & Water Conservation District | Lake County, CA

Project manager and lead engineer for updated seismic stability evaluation of the embankment dam and appurtenant structures. The evaluation was performed using updated earthquake ground motions in response to requests from FERC. Input acceleration time histories were developed by spectrally-matching recorded motions to the new target response spectra. The seismic response and deformation analyses were performed using equivalent-linear finite element analyses (QUAD4M). The stability analysis included evaluation of the stilling basin walls, the 60-inch diameter butterfly valves, as well as evaluation of cross valley seismic loading on the outlet gates.

FOCUSED SPILLWAY POTENTIAL FAILURE MODES ANALYSIS SESSIONS

Confidential Utility Client | Nevada, Plumas, and Shasta Counties, CA (2017)

Facilitator and project manager for spillway-focused potential failure modes analysis (PFMA), and preparation of Addenda to the PFMA reports for eight dams. The project included review of spillway assessment reports, preparation of flood- and spillway- related potential failure modes (PFMs), attendance and facilitation of PFMA sessions, and preparation of addenda reports to the existing PFMA reports for each dam.

SEISMIC SAFETY STABILITY EVALUATION AND PFMA FOR ANDERSON DAM

Santa Clara Valley Water District | Santa Clara County, CA

Project manager for a study to evaluate the seismic stability of the 240-ft high rockfill dam using updated ground motions anticipated for the site and current state-of-practice procedures accepted by the State of California Division of Safety of Dams (DSOD). The scope of work included performing field investigations, both on land and offshore, to characterize the embankment and foundation material. The analysis used two-dimensional finite-element analyses to evaluate the dynamic response of the embankment, and used Becker Hammer penetration test results to evaluate the cyclic resistance of the potentially liquefiable embankment and foundation soils. Analysis indicated that the both the upstream and downstream slopes of the dam would become unstable and would likely experience significant deformations during and after earthquake shaking. Also developed conceptual designs for measures intended to improve the performance of the dam, including performing a three-dimensional stability analysis to optimize the size of the potential remedial designs. The evaluation also included performing a paleoseismic fault trenching program to investigate the potential activity of a fault that was mapped through the embankment and outlet pipe. Two-dimensional effective-stress finite-difference analyses (FLAC) were also performed to evaluate the potential for seismically induced deformation of the embankment in order to negotiate a restricted reservoir operating elevation.

Lead geotechnical engineer for the planning phase evaluations and designs for the seismic retrofit of the dam. Work included developing conceptual remediation alternatives for the embankment and outlet tunnel. Performed alternatives analysis based on construction costs, schedule, and technical feasibility. Core Team Member for special PFMA session regarding potential fault rupture hazards for the embankment.

SEISMIC STABILITY EVALUATION OF HELL HOLE AND L.L. ANDERSON DAMS

Placer County Water Agency | Placer County, CA

Project manager for the updated ground motion evaluation and stability analyses of two large rockfill dams in the Sierra foothills. The re-evaluation was performed in response to recommendation in the FERC Part 12D report. The work included static, seismic, and rapid drawdown slope stability analyses. The seismic response and permanent deformations within the embankment were estimated using two-dimensional finite element analyses. The analyses showed that the embankments would perform adequately under the design seismic loading conditions.

SEISMIC STABILITY EVALUATION OF BLUE RIDGE DAM

Tennessee Valley Authority | Blue Ridge, GA

Project manager for the seismic evaluation of an existing hydraulic fill dam. Five time histories were developed based on two scenario earthquakes. A liquefaction evaluation was performed using two-dimensional finite-element analysis. Post-earthquake stability evaluations were performed to estimate the permanent deformations from the scenario earthquakes. Conceptual retrofit alternatives were also developed.

SEISMIC STABILITY EVALUATION OF SAN PABLO DAM

EBMUD | Contra Costa County, CA

Assistant project manager for a study to evaluate the seismic stability of the 170-foot-high earthfill San Pablo Dam using updated ground motions anticipated for the site and current state-of-practice procedures accepted by the State of California Division of Safety of Dams (DSOD). The dam is located less than two miles from the active Hayward fault. The study involved performing a review of previous stability analyses and field investigations that included drilling, sampling, geophysical testing, and laboratory testing. The analysis used two-dimensional finite-element analyses to evaluate the dynamic response of the embankment, and used field standard penetration test results to evaluate the cyclic resistance of the embankment and foundation soils. Two-dimensional effective-stress finite-difference analyses (FLAC) were also performed to evaluate the seismically induced deformation of the embankment. The liquefaction assessment indicated that all of the saturated shell material and cohesionless foundation alluvium likely would liquefy during the postulated earthquake. Analysis indicated that the downstream slope of the dam would become unstable and would likely experience significant deformations during and after earthquake shaking. Also developed conceptual designs for measures intended to improve the performance of the dam. Measures included removing and replacing significant portions of the downstream slope of the dam and its underlying foundation and using the cement-deep soil mixing method to mitigate liquefaction and strengthen the deep foundation soils.

ENTERPRISE RISK MANAGEMENT SCREENING ANALYSIS OF 16 LOW-HAZARD DAMS

Confidential Utility Client | Sierra Nevada Mountain Range, CA

Project Manager for a screening-level study of 16 aging earth and rockfill embankment dams in the Sierra Nevada Mountain Range and western foothills. The dams ranged in height (from 3 feet to 50 feet) and age (60 years to over 100 years old), and were built with a wide variety of soil types and construction methods. Visits to 16 of the sites were performed to observe current conditions and note any signs of distress. A cursory slope stability and seismic deformation analysis was performed for each site to prioritize any necessary evaluations and/or modifications across the client's dam inventory.

PARDEE OUTLET TOWER SEISMIC EVALUATION

East Bay Municipal Utility District | Amador and Calaveras Counties, CA

Project Manager for the ground motion evaluation of the Pardee Reservoir Outlet Tower. Project included review of previous studies to update the seismic source characterization for nearby faults, development of updated probabilistic and deterministic ground motion estimates for the Outlet Tower, and evaluation of potential soil-structure-interaction (SSI) effects for the tower shaft extending below the base of the reservoir. The ground motion estimates were developed using the most recent ground motion prediction equations available at the time.

Wayne D. Edwards, P.E.

Education

B.S., Civil Engineering, University of Washington

Registration

Professional Engineer, California 22581, Nebraska 9524

Professional Endeavors

W.D. Edwards Consulting, LLC, 2003 - present

HDR Engineering, Inc., 1993 - 2003

Pacific Gas & Electric Company - 1969-1993

Professional Activities

American Society of Civil Engineers (ASCE)

ASCE Task Committee on Guidelines for Evaluation of Spillway Gates, 1998-2012

United States Society on Dams (USSD formerly USCOLD), 1982-present

USSD Board of Directors, 2004 - 2010

USCOLD Technical Activities Committee, 1984-1995; Vice Chairman, 1988-1991; Chairman, 1991-1995

USCOLD Committee on Monitoring Dams and Their Foundations. 1995-2000

USSD Committee on Dam Decommissioning, 1998-2008; Chairman, 2000-2003

ICOLD Committee on Dam Decommissioning; Chairman, 2005-2011

Program Subcommittee for 1988 ICOLD Congress

EPRI Dam Safety Advisory Group, 1989-1991

Association of State Dam Safety Officials (ASDSO), 1993-present

Co-chair of two FERC/USSD Dam Safety Surveillance and Monitoring Workshops, 2006. 2007

Experience

Mr. Edwards is an engineering consultant with more than 40 years of experience in the planning, design, construction, and project management of water supply and hydroelectric engineering projects. Mr. Edwards has worked on projects involving over 150 dams, including seismic stability analyses, spillway adequacy studies, design and installation of monitoring systems, geotechnical investigations, design and construction of stability improvements, and project management. Mr. Edwards also has extensive experience in other hydro facilities ranging from the design and construction of penstocks, tunnels, canals, and flumes to feasibility studies, licensing, and design of new powerhouses. Selected projects:

Dam Safety and Design

Dam Safety Program, Pacific Gas & Electric, CA. Project manager with overall responsibility for 103 dams under California Division of Safety of Dams (DSOD) and Federal Energy Regulatory Commission (FERC) jurisdiction.

FERC Dam Safety Reviews. Independent Consultant for over 125 FERC Part 12D dam safety reviews.

FERC Potential Failure Modes Analysis. Facilitator for FERC Potential Failure Modes Analysis (PFMA) workshops for over 40 dams. As Independent Consultant, participated in PFMA workshops for over 100 dams since 2003.

FMEA Facilitation. In 2015-2016, facilitated FMEA workshops for 4 dams owned by the provincial government of Alberta, Canada.

PFMA Training and Facilitation. In 2016-2017, provided PFMA training to the Southern Water Resources Agency of Taiwan and facilitated PFMA workshops for 2 dams.

Risk Assessment Workshops. Participated in risk assessment workshops for two Southern California Edison dams; Shaver Lake is a 180-foot-high curved concrete gravity dam and Vermilion Valley is a 165-foot-high zoned earthfill dam.

FERC Dam Safety Surveillance and Monitoring Plans. Prepared Surveillance and Monitoring Plans (SMP) and Surveillance and Monitoring Reports (SMR) for 17 Southern California Edison (SCE) dams.

Don Pedro Dam spillway Assessment, Turlock Irrigation District, CA. Participated in detailed structural inspection of main and emergency spillways, facilitated spillway-focused PFMA workshop, prepared PFMA report, and spillway assessment report.

Nevada Irrigation District, Spillway Assessments, CA. Participated in spillway assessments for five dams including detailed field inspections, spillway-focused PFMA facilitation, and preparing spillway assessment reports.

Pacific Gas & Electric, Spillway Assessments, CA. Facilitator for spillway-focused PFMA workshops for 10 dams

New Exchequer Dam Seismic Stability Analysis, Merced Irrigation District, CA. Project manager for seismic stability analysis of 492-foot-high concreted faced rockfill dam.

Don Pedro Dam Seismic Stability Analysis, Turlock Irrigation District, CA. Project manager for seismic stability analysis of 585-foot-high zoned earthfill dam.

New Bullards Bar Dam Seismicity Study, Yuba County Water Agency, CA. Project manager for review of potential seismic sources and ground motions for 645-foot-high concrete arch dam.

Pardee Reservoir Enlargement Project, East Bay Municipal Utility District. CA. Contract manager for preliminary engineering and geotechnical studies to determine the best alternative to increase storage at Pardee Reservoir by approximately 170,000 acre-feet. Project components include replacing the main dam, relocating the

powerhouse, replacing or rebuilding the outlet tower, rebuilding Jackson Creek Dam, replacing bridges, roads, and recreation facilities, and improving Pardee tunnel and aqueduct facilities.

***Spillway Gate Evaluations*.** Project manager for the inspection and structural analysis of over 300 spillway gates at 40 dams nationwide. Managed design of improvements to gates at Gibraltar, DeCordova Bend, and Tobesofkee Dams.

McCloud Dam, Shasta County, CA. Directed studies to identify alternatives to modify 235-foot-high earth and rockfill dam to pass the PMF. Subsequently an inflow design flood study determined that the spillway design flood was one-half PMF. Reviewed feasibility of all options including enlarging existing spillway, a new tunnel spillway, raising the dam crest and a fuse plug spillway on the dam crest. The selected alternative was to raise the dam crest and modify the spillway chute. The cost was $6 million as compared to $40 million to pass the full PMF.

Old Aswan Dam, Aswan, Egypt. As consultant to USAID and the Egyptian Ministry of Irrigation, prepared the request for technical proposal on the seismic stability evaluation of the Old Aswan Dam. Also made recommendation on the selection of consulting firm to perform field investigations and stability analysis.

Pit 1 Dam, Shasta County, CA. Directed studies to address the seismic stability and spillway adequacy of a 40-foot-high earth and rockfill embankment. Dynamic analysis showed that dam could withstand the shaking from the controlling fault. Dambreak studies clearly showed that the small town immediately downstream would be inundated if the dam failed and that the dam needed to safely pass the PMF. A study of alternatives showed that raising the dam crest and modifying the spillway gates was the most economic solution.

Pit 3 Dam, Shasta County, CA. Directed studies to address stability of 130-foot-high concrete gravity dam under PMF loading. An Inflow Design Flood (IDF) analysis confirmed that a small town would have significant incremental effects due to hypothetical dam failure up to PMF. Conventional two-dimensional rigid base analysis indicated that dam could safely pass only a fraction of the PMF. Performed 2-D and 3-D finite element analyses which showed that dam would withstand PMF loading. The abutments were armored with concrete slabs to prevent erosion during possible overtopping.

Lake Valley Dam, Placer County, CA. Project engineer responsible for field and laboratory investigations, seismic stability analyses and design of stability improvements to 28-foot and 75-foot-high earthfill embankments. Field investigations included drilling and piezometer installation and geophysical survey. Because of cobbles and boulders in the fill it was necessary to excavate a shaft in the main dam to obtain samples and perform in place density test. Stability improvements consisted of widening the crest, flattening the downstream slope, adding a toe drain and buttressing the upstream slope with a rockfill berm.

Scott Dam, Lake County, CA. Project engineer responsible for final design, procurement and construction support for modifications of spillway gates and hoists on 134-foot-high concrete gravity dam to pass the PMF. Also included spill chute improvements and abutment protection. Directed extensive geotechnical investigations which included drilling, sampling and laboratory testing of the soft foundation rock. Reduced uplift by installing more drains in the gallery and inclined drains from the toe. Installed piezometers to monitor effect of new drains and cleaning of existing drains. Seismic stability was a concern because of an active fault 2-km from the dam site. Performed field vibration testing in order to verify the computer model of the dam and soft foundation.

Pit 4 Dam, Shasta County, CA. Directed studies to review structural adequacy and overall stability of 58-foot-high slab and buttress dam due to flood overtopping. Even though the slab could withstand the loading, investigations confirmed that the foundation was highly erodible.

Bucks Diversion Dam, Plumas County, CA. Directed foundation investigation and analysis of 99-foot-high concrete arch dam. Main concern was the stability of the gravity abutment blocks.

Chill Bar Dam, El Dorado County, CA. Directed studies to evaluate the stability of 120-foot-high concrete gravity dam under flood loading. The studies included foundation drilling and sampling, piezometer installation and 2-D finite element analysis. Also routed floods with and without dam failure to determine incremental effects and select the appropriate design flood. The spillway design flood was determined and the stability of the dam analyzed under flood loading.

Pit 6 Dam, Shasta County, CA. Responsible for design and construction support for spillway improvements to 183-foot-high concrete gravity dam. Improved the stability of the dissipater blocks of the St. Anthony's Falls type spillway. Also raised walls to contain the hydraulic jump and protect the powerhouse. Directed a foundation investigation to obtain data at the dam-foundation interface, clean drains, and install piezometers. Work was co-funded by EPRI, as part of dam safety research program.

Lake Fordyce Dam, Nevada County, CA. Responsible for planning, permitting, procurement, design, and construction support of dam and spillway modification to permit 3 additional feet of storage. Modifications included a new flashboard support structure and adding a parapet to the crest of 145-foot-high concrete faced rockfill dam. Also repaired the concrete face slab by placing a reinforced gunite overlay.

Relief Dam, Tuolumne County, CA. Directed studies to assess effects of large floods overtopping a 141-foot-high concrete faced rockfill dam. Dambreak routings showed that there would be significant incremental effects to downstream areas up to the PMF. A flow through analysis indicated that the rockfill on the downstream slope and toe would not withstand the overtopping. The spillway was modified to pass the PMF.

Mokelumne Project, Alpine, Amador, and Calaveras Counties, CA. Prepared testimony on dam safety for 13 dams for relicensing hearings. Reviewed proposed project improvements for any impacts on dam safety.

Rock Creek and Cresta Project, Plumas County, CA. Prepared testimony on dam safety for 2 concrete gravity dams for relicensing hearings. Performed initial studies of alternatives to remove sediments from the reservoirs and modify operations to permit sediment bypass at the dams.

Dam Decommissioning

Van Norden Dam, Placer County, CA. Responsible for permitting, design, and construction support of the breaching of 32-foot-high earthfill dam. Geotechnical investigation and stability analysis showed that dam was deficient under seismic loading including liquefaction of the embankment and foundation. Studies of alternatives showed that breaching the dam was the most economic solution. A trapezoidal section was excavated through the dam and lined with reinforced concrete.

Sunol and Niles Dams, City of San Francisco, CA. Project principal for conceptual engineering study to remove two small concrete dams on Alameda Creek. Scope of work included researching dam removal case studies, site investigations, developing sediment management strategies, identifying diversion and dewatering options, and developing a demolition plan for each dam.

Elwha and Glines Canyon Dams, Elwha River, WA. Selected by the Bureau of Reclamation to participate in a VE study for the removal of two dams on the Elwha River. Elwha Dam, built in 1910-13, is a 105-feet high concrete gravity dam. Glines Canyon Dam, constructed in 1927, is a 210-feet high concrete arch dam. Dam removal is expected to improve the populations of the native anadromous fish runs.

There is an estimated 4 million cubic yards of sediment behind Elwha Dam and approximately 14 million cubic yards of sediment behind Glines Canyon Dam. The VE team identified over $4 million in potential savings.

Dam Decommissioning Dialogue, Aspen Institute, Washington, DC. Member of a diverse group, that met over a two-year period, to write a book on dam decommissioning. The book, "*Dam Removal: A New Option For a New Century"* addresses issues involved in dam removal – when it should be considered as an alternative and how to do it right if dam removal is the selected alternative. The group reviewed numerous case studies from across the country and prepared a section on lessons learned.

Penstocks/Pipelines

Caribou Powerhouses Nos. 1 and 2, Plumas County, CA. Project engineer responsible for planning, analysis, design, and geotechnical investigation of facilities damaged by a massive landslide. The ridge supporting penstock No. 1 settled, opening riveted joints and causing a landslide which damaged the adjacent powerhouse No. 2 and switchyard. Based on geotechnical investigations, the ridge was excavated to provide a stable foundation for a new penstock No. 1. Also rebuilt powerhouse No. 2 by installing a new transformer, controls, control building, switchyard, and gantry crane. The powerhouses were back on line within 10 months. Project was recognized by ASCE with the 1987 **Outstanding Civil Engineering Achievement Award of Merit.**

Penstock Stabilization Caribou 2, Plumas County, CA. Project manager responsible for analysis, design, and construction of stability improvements to penstock on a steep slope. Inspection and monitoring revealed that penstock was slowly moving downhill and that one expansion joint had opened about 8 inches. Analysis of geotechnical and monitoring data indicated the area of instability. Improved stability of two anchor blocks with deep rock anchors and installed a sleeve to restore the expansion joint.

Camino Hydroelectric Project Penstock Stabilization, El Dorado County, CA. Project engineer responsible for identifying and evaluating stability improvements for a 12-foot diameter high-head penstock on steep slope. Prepared feasibility level design, drawings, and construction cost estimates for the alternatives and recommended a phased approach to implement the proposed improvements.

Swinging Bridge Hydroelectric Project Penstock Evaluation, NY. Project engineer for determining the cause of settlement and buckling in a section of 10-foot diameter steel penstock liner which passes through an earthfill dam. Participated in an emergency inspection with FERC, reviewed dam and penstock settlement data, identified the cause of buckling, and designed the repairs.

El Dorado Penstock Replacement, El Dorado County, CA. Responsible for design, procurement, and construction support for new steel penstock to replace old woodstave penstock. The new pipe sections were ring girder supported and designed and fabricated for installation during a short outage.

Tunnels/Canals

***El Dorado Canal Tunnel, El Dorado County, CA*.** Directed studies, design, and construction support for a new 4,000-foot tunnel to bypass a section of canal destroyed by a landslide.

South Canal Tunnel, Placer County, CA. Directed design, procurement and construction support for emergency repairs to a small tunnel in soft ground. Included low profile tunnel sets and shotcrete for support and a high density polyethylene liner to improve hydraulics.

Pit 1 Tunnel, Shasta County, CA. Responsible for design, procurement, and construction support for repairs to the concrete lining during annual outage.

Yolo County Flood Control and Water Conservation District, CA. Directed team of FEMA inspectors in documenting damage to canal system from the 1995 floods. Identified repairs required to get canal back in service before the irrigation season.

Hydroelectric Plants

Gibraltar Project, Santa Barbara, CA. Project manager for surrendering the FERC license for an 820 kW hydroelectric project. In the first phase, HDR assembled project documentation and conducted a site visit and interviews with project staff. Also discussed project with FERC staff in San Francisco and Washington, DC. HDR developed a powerhouse retirement plan that was then sent to interested parties and agencies. The Application for Surrender of License was submitted to FERC in May 2000.

Utica and Angels Projects, Alpine, Calaveras, and Tuolumne Counties, CA. Project manager for evaluation of two existing (4.0 MW and 1.0 MW) hydroelectric projects. The study included an assessment of the condition of project facilities, estimation of average energy generation, estimation of the value of the projects, and an economic analysis.

Fish Passage Improvement Project, Potter Valley Project, Mendocino County, CA. Project manager for Fish Passage Improvement Project which included rebuilding of an existing fish ladder to new agency criteria. Responsible for agency negotiations, criteria development, estimating, design and construction. Directed study to replace fish screen at intake to power tunnel. Worked closely with state and federal fisheries agencies to identify acceptable alternatives for a new screen that would prevent loss of downstream migrants.

Rock Creek and Cresta Dams, Plumas County, CA. Prepared layouts and cost estimates for new fishwater units located at the dam abutments. Reviewed alternatives to place new units within the gallery of the dams.

Pine Flat Powerhouse, Fresno County, CA. Project engineer for reconnaissance study to investigate the costs and benefits of installing an additional unit at Pine Flat Powerhouse. In order to meet future increases in minimum instream releases and address concerns over water temperature control, a new low level outlet will be required. This study addressed alternatives for tapping the existing penstocks, powerhouse locations, and average annual generation based on possible minimum instream release requirements.

Rock Creek and Cresta Projects, Plumas County, CA. Project manager for procurement of new trashrakes at the intakes to Rock Creek and Cresta powerhouses. Services included developing design and operation criteria, identifying potential suppliers, and preparing the procurement specification.

Grizzly Powerhouse, Plumas County, CA. Directed final design and preparation of contract documents for a 20-MW powerhouse. Performed technical review and signoff of powerhouse and intake drawings and the construction specification.

Pit 1 Powerhouse, Shasta County, CA. Prepared feasibility studies, layouts, and cost estimates for pumping facilities located upstream of the powerhouse. The plan was to pump water from the Pit River to the forebay on the Fall River to increase powerhouse output.

Dam Safety Presentation
to
Calaveras Public Utility District Board
May 11, 2021
By
Rich Sanchez

May 6, 2020

Donna Leatherman, District Manager
Calaveras Public Utility District
506 W. St. Charles
San Andreas, CA 95249

GEI Consultants
Consulting Engineers and Scientists

STANDARD PROFESSIONAL SERVICES AGREEMENT
BETWEEN
GEI CONSULTANTS, INC.,
AND
CALAVERAS PUBLIC UTILITY DISTRICT
For
Chief Dam Safety Engineer Services

TASK ORDER NO. 01-2020

This Task Order dated May 6, 2020, defines Scope of Services, Schedule, and Budget for work to be completed by GEI Consultants, Inc., (GEI) for Calaveras Public Utility District (CPUD) per the terms and conditions of the Standard Professional Services Agreement dated March 31, 2020, and as amended herein.

This Task Order covers Chief Dam Safety Engineer (CDSE) professional services from the executed date of this task order to December 31, 2020. These services will be periodic in nature (such as reviews, dam safety inspections and or assessments, meetings, assisting CPUD with dam safety regulatory correspondence responses) and other requested dam safety related work as determined by CPUD's District Manager Donna Leatherman. Other significant as-requested work items (i.e. Outstanding FERC Security Items) would lead to the establishment of separate task orders and budget authorizations requiring CPUD's advance approval prior to the initiation of any work.

SCOPE OF SERVICES

The specific scope of servic
schedule dates are based on
reviewed by May 21, 2020,
and or field activities noted

- Prepare letter notifi
  Sanchez by June 1,
- Complete initial file
  Safety of Dams (DS
  inspection reports, g
  information, previo
  for example listing
- Conduct CPUD offi
  by June 19, 2020 (a
- Prioritize Outstandi
- Meetings with Distr
- Project managemen

www.geiconsultants.com

- Miscellaneous related As-Requested Services as determined by CPUD's Donna Leatherman (assumed 8-hours allowance for remainder of 2020)

SCHEDULE

Some of the work activities are periodic as indicated above, while others will be performed within schedules noted above and or as agreed with CPUD's District Manager Donna Leatherman.

BUDGET

The 2020 (May 2020 to December 31, 2020) budget for Task Order 01-2020 is **$14,256**, with sub task-by-sub task allocations set forth in the table below.

Task	Estimated Hours	Amount
Notification letter to FERC on CDSE	2	$594
File Review related to Middle Fork Dam Facilities	8	$2,376
Site Meeting and Inspection of Dam Facilities	8	$2,376
Prioritize FERC Outstanding Items	8	$2,376
Monthly Meetings (one-hr per month, 7 months)	7	$2,079
Project Management Activities (one-hr per month)	7	$2,079
Miscellaneous As-Requested Services Per CPUD	8	$2,376
Total Budget Authorized by Task Order 01-2020		**$14,256**

Billing for all work completed under this Task Order will be in accordance with the terms of the Standard Professional Services Agreement. The total Task Order budget amount shall not be exceeded without written authorization from CPUD.

AUTHORIZATION

This Task Order is authorized and made an attachment to the above-identified Professional Services Agreement through the signatures below.

Authorized by:	Accepted by:
Calaveras Public Utility District	GEI Consultants, Inc.
By: Donna Leatherman	By:
District Manager	Vice President
Date: ~~May 6, 2020~~ May 12, 2020	Date: ~~May 6, 2020~~ May 13, 2020

CALAVERAS PUBLIC UTILITY DISTRICT

DIRECTORS
John Lavoroni
Clifford Overmier
J.W. Dell'Orto
Richard Blood
Scott Speer

MANAGER
Donna Leatherman

506 W. St. Charles Street
P.O. Box 666
SAN ANDREAS, CALIFORNIA 95249
TELEPHONE: 209-754-9442 FAX: 209-754-9432
www.cpud.org

June 15, 2020

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Dam Safety and Inspections - San Francisco Regional Office
100 First Street, Suite 2300
San Francisco, CA 94105-3084

Attention: Frank L. Blackett, P.E.
Regional Engineer

Ref: Middle Fork Dam Project No. 7506-CA, NATDAM No. CA83288

Dear Mr. Blackett:

This is to inform you that Calaveras Public Utility District recently retained Mr. Richard Sanchez, with GEI Consultants Inc., as their Chief Dam Safety Engineer. Mr. Sanchez has over 40 years of engineering experience with a focus in dam safety and will be assisting me in addressing the dam safety related items associated with Middle Fork Dam.

Mr. Sanchez will first perform a file review and then inspect the Middle Fork Dam facilities in July to become familiar with our Project. Upon the completion of these tasks, we will then proceed on tackling the outstanding FERC items. Due to our financial limitations each year, I will be working with Mr. Sanchez on developing work plans and establishing priorities. We will of course be corresponding with you and your staff on our progress to allow for FERC input and concurrence.

I would appreciate if you could copy Mr. Sanchez on any future FERC letters regarding Middle Fork Dam. His contact information is below. If you or your staff have any questions please feel free to contact me at (209) 754-9442 or dleatherman@cpud.org.

Sincerely,

Donna Leatherman

Donna Leatherman, General Manager
Calaveras Public Utility District

CC: Richard Sanchez, P.E.
GEI Consultants Inc.
2868 Prospect Park Drive, Suite 310, Rancho Cordova, CA 95670
rsanchez@geiconsultants.com
916-631-4500 Office or 916-350-1769 Mobile

GEI Consultants

Two Dam Safety Regulatory Agencies

Federal Energy Regulatory Commission (FERC)

Title 18 Code of Federal Regulations (CFR)
Part 12 & Engineering Guidelines

Middle Fork Dam, FERC Project No. 7506

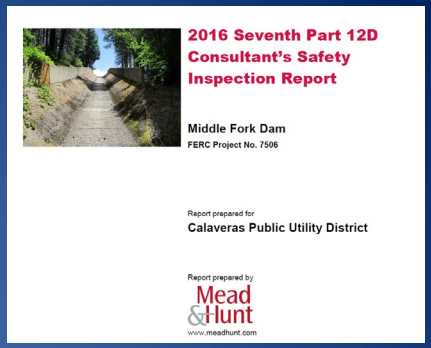
California Division of Safety of Dams (DSOD)

California Water Code, Division 3, Part 1

Middle Fork Dam, DSOD No. 82-2
Red Hawk Lake Dam, DSOD No. 82-0
Jeff Davis Dam, DSOD No. 82-4

Notes:
Dam Facilities = Dam, Reservoir, Spillway, Outlet Works, Powerplant, Instrumentation.
Requires annual inspection and instrumentation reports certifying facilities are safe.
Plus, annual Emergency Action Plan exercise.

FERC Outstanding Items: Middle Fork Dam, Project # 7506

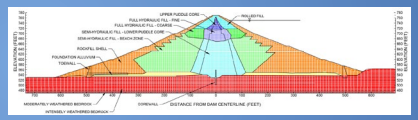


1. 8th Part 12D (Every 5-Years), Mead and Hunt did 7th Part 12D in 2016
   a. Due in May 2021 but requested extension until Dec 2021.
   b. Mead & Hunt 8th Part 12 D in 2021?

2. Potential Failure Mode Analysis (PFMA)…combine with 2021 Part 12D

3. Dam Safety Surveillance Monitoring Plan (DSSMP)…combine with 2021 Part 12D

4. Supporting Technical Information Document (STID)….combine with 2021 Part 12D
   Update Analyses. Past Due.



5. Emergency Action Plan (EAP)…..Mead Hunt currently working w/Calif OES's approval.
   Submit to FERC after OES approves. Past Due.

6. Owner's Dam Safety Program (ODSP), Hire Auditor, Audit, & Report to FERC in 2021

7. Security Plan determined Insufficient, need new plan and assessment. Past due.
   Requested extension until 2022.

8. Spillway Concrete Repairs' Report to FERC. Past Due.

9. Condition Assessment of Steel Penstock. Past Due.

Thank You!

Q&A

ITEM 9

CALAVERAS PUBLIC UTILITY DISTRICT

MEMORANDUM

SEPTEMBER 14, 2021

TO: BOARD OF DIRECTORS

FROM: JOHN KINGSBURY, INTERIM GENERAL MANAGER

SUBJECT: MOTHERLODE JOB TRAINING (MLJT) WORKSITE

This it to consider Calaveras Public Utility District (CPUD) becoming a Motherlode Job Training (MLJT) Worksite and support this partnership in the community.

The MLJT Work Experience Program is designed to assist individuals with little or no direct experience get training to better prepare them to enter the work force. The training provided can be in the area of work ethic and basic work skills or to enhance or update current skills.

In this program MLJT will cover the participant's wages and the Workman's Compensation for a designated training period. It is a win-win situation!

CPUD can add needed workforce at no expense in exchange for our expertise in training. The employee, as he/she gain skills, has the opportunity to exhibit their potential and apply new skills directly to their job position, which could be CPUD.

Employee interims can work up to 29 hours per week. The only stipulation is that the individual is unable to drive a work vehicle.

CPUD will need to provide to the MLJT:

- Completed application
- Workers' Compensation Insurance Experience Rating
- Employer Injury and Illness Prevention Program (IIPP)
- COVID-19 Worksite Plan
- Workplace Safety Inspection Checklist and inspection

The Forms are attached for informational purposes.

If the Board approves this request and after all of this information has been completed and returned to MLJT, they will send a few forms for approval and develop the Worksite Agreement.

Recommendation: Authorize staff to partner with the Motherlode Job Training and to execute the Worksite agreement.

WORK EXPERIENCE PROGRAM
POSITION REQUEST FORM

Worksite: _____

Mailing Address: _____

Telephone Number: _____ Fax Number: _____

Contact Person(s): _____ Email Address: _____

_____

Worksite Location: _____

Date of Request: _____

1. Position Title: _____ # of Positions for this title _____

(If requesting multiple different positions, please copy this request and complete for each job title.)

A. Workdays: _____
B. Hours of Work: _____ AM to _____ PM
C. Total Hours per Week: Click or tap here to enter text.
(Maximum is 29 hours per week) _____
D. Suggested Wage rate for this position: _____

2. Who will supervise the trainee? _____
(Please list all possible Supervisors.) _____

_____

3. Can you (as the Worksite representative) assure that the work experience training will not result in the displacement of currently employed workers, including partial displacement such as reduction in hours of non-overtime work, wages or employment benefits?
☐ Yes
☐ No (please explain) _____

4. Has any person at your agency/organization been laid off from the same or substantially equivalent position within the last year?
☐ No
☐ Yes (please explain) _____

5. Special Requirements to perform the job:

☐ Physical Required
☐ Tetanus Shot
☐ Drug Screen
☐ Background Check (Live scan)
☐ Equipment (specify): _____
☐ Special Clothing: (specify) _____
☐ Tools: (specify) _____
☐ Other: (specify): _____

Description of Work Activities

Position/Title: _____

Description of Duties: Knowledge, Skills and Attitudes to Gain.

Memorization: Recall or retrieval of previous learned information Key Words: Define, describe, identify, know, label, list, match, name, outline, recall, recognize, reproduce, select, state	*Example: Able to recite a rule or policy*.
Understanding: Comprehension of meanings, interpreting problems. State a problem in one's own words. Key Words: Comprehend, convert, distinguish, estimate, explain, give an example, generalize, infer, interpret, rewrite, summarize, translate	*Example: Demonstrate understanding of tool use*.
Applying: Use a concept in a new situation or without prompting. Key Words: Apply, change, compute, construct, demonstrate, discover, modify, operate, predict, prepare, produce, relate, show, solve, use	*Example: Use a plan to organize files.*
Analyzing: Separate material or concepts into parts so its organizational structure can be understood. Distinguish between facts and inferences. Key Words: Analyze, break down, compare, contrast, diagram, deconstruct, differentiate, distinguish, determine, identify, illustrate, infer, outline, relate, select, separate	*Example: Troubleshoot a piece of equipment.*
Evaluating: Make judgements about the value of ideas or materials. Key Words: Appraise, compare, conclude, critique, describe, evaluate, explain, interpret, support	*Example: Determine best fit for items on shelf display.*
Creating: Put parts together to form a whole, with emphasis on creating a new meaning or structure. Key Words: Build, categorize, combine, compile, compose, create, design, explain, generate, modify, organize, plan, rearrange, reconstruct, relate, reorganize, revise, rewrite, tell, write	*Example: Build shelves for installation.*

Safety List Type of Equipment/Tools Used for this Position and Frequency of Use:

Tools/Equipment	Occasionally	Frequently	Continuously
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Work Activity Required:

Activity	Never	Occasionally	Frequently	Constantly
Sitting	☐	☐	☐	☐
Walking	☐	☐	☐	☐
Standing	☐	☐	☐	☐
Bending	☐	☐	☐	☐
Squatting	☐	☐	☐	☐
Climbing	☐	☐	☐	☐
Kneeling	☐	☐	☐	☐
Crawling	☐	☐	☐	☐
Driving	☐	☐	☐	☐
Hand Use:	☐	☐	☐	☐
Repetitive use of hand required?	☐	☐	☐	☐
Simple grasping (right)	☐	☐	☐	☐
Simple grasping (left)	☐	☐	☐	☐
Power grasping (right)	☐	☐	☐	☐
Power grasping (left)	☐	☐	☐	☐

Please Indicate the Daily Lifting and Carrying Requirements of the Job:

Weight	Never	Occasionally	Frequently	Constantly
0-10 lbs.	☐	☐	☐	☐
11-25 lbs.	☐	☐	☐	☐
26-50 lbs.	☐	☐	☐	☐
51-75 lbs.	☐	☐	☐	☐
76-100 lbs.	☐	☐	☐	☐
100+ lbs.	☐	☐	☐	☐

Please indicate if your job requires:	YES	NO	If yes, please briefly describe. For those items with asterisks*: Has employer addressed in Illness and Injury Prevention Plan (IIPP) or other training document, how they deal with this issue?
Driving cars, trucks, forklifts, and other equipment?	☐	☐	
Working around equipment and machinery?	☐	☐	
Walking on uneven ground?	☐	☐	
Exposure to excessive noise?	☐	☐	
Exposure to extremes in temperature, humidity or wetness?	☐	☐	
Exposure to dust, gas, fumes or chemicals?	☐	☐	
Working at heights?	☐	☐	
Operation of foot controls or repetitive foot movement?	☐	☐	
Working with bio-hazards such as: sewage, etc.	☐	☐	
Traveling with supervisors or co-workers?	☐	☐	
Have safety measures been implemented to protect all employees from exposure to communicable diseases?	☐	☐	

WORKPLACE SAFETY INSPECTION CHECKLIST

Workplace: _____

Inspected by: _____ Date: _____

This checklist should be completed annually or when the WEX begins employment.

Each "No" answer may indicate a problem and should be addressed with the Employer.

	Floors and Walkways	Yes	No	N/A
1	Are walkways and stairways kept clear of obstructions?	☐	☐	☐
2	Are mops or towels available to clean up spills to prevent slips?	☐	☐	☐
3	Are non-slip mats, grates, or slip-free coatings used in wet areas to prevent falls?	☐	☐	☐
4	Do stairways have handrails?	☐	☐	☐
5	Are carpets and rugs causing a potential trip hazard?	☐	☐	☐

	Ladders and Fall Protection	Yes	No	N/A
1	Are the appropriate ladders for the job available and in good condition?	☐	☐	☐
2	Are the ladders inspected before each use?	☐	☐	☐
3	Do ladders have safety feet?	☐	☐	☐
4	Are non-metal ladders used when there is a chance of electric shock?	☐	☐	☐
5	Have maintenance workers, janitors and other workers been trained in ladder safety as needed?	☐	☐	☐
6	If work is done on an elevated work location (above 30 inches, or 48 inches if the platform is not part of the building), are guard rails installed?	☐	☐	☐
7	Do staff have access to step stools as needed?	☐	☐	☐
8	Are employees instructed not to stand on unsafe surfaces or furniture?	☐	☐	☐

+

	Lighting	Yes	No	N/A
1	Is there adequate lighting throughout the workplace, including outdoors?	☐	☐	☐
2	Are the areas around all machines well-lighted?	☐	☐	☐
3	Are outside pathways and parking lots adequately lighted at night?	☐	☐	☐

	Fire Safety	Yes	No	N/A
1	For each building, are there at least the required number of emergency fire exits? (Check with your local fire department for their recommendations.)	☐	☐	☐
2	Are exits clearly marked and pathways to the exits clear?	☐	☐	☐
3	Have employees been told what to do in case of a fire or other emergency?	☐	☐	☐
4	Are there fire extinguishers of the correct type in or close to each work area?	☐	☐	☐
5	Are the locations of fire extinguishers clearly marked?	☐	☐	☐
6	Do fire extinguishers have up-to-date inspection tags, and are they visually inspected monthly?	☐	☐	☐
7	If employees are authorized to use portable fire extinguishers, have these employees been trained how to use them? (Annual training is required for all employees authorized to use portable fire extinguishers.)	☐	☐	☐
8	If applicable, are the fire alarm system and sprinkler system regularly tested?	☐	☐	☐
9	Are there regular fire drills?	☐	☐	☐

	Electrical Hazards	Yes	No	N/A
1	Have employees who use machinery been told how to recognize when a machine has been locked out and tagged (electrical power off, locked out and machine tagged)?	☐	☐	☐
2	Are electrical cords in good condition (no fraying or other defects)?	☐	☐	☐
3	Are power tools and other equipment in good condition?	☐	☐	☐
4	Is all electrical equipment, including power tools, properly grounded?	☐	☐	☐
5	Are there enough outlets so extension cords don’t have to be used?	☐	☐	☐
6	Are cords kept out of areas where someone could trip over them, or where they could be damaged?	☐	☐	☐

	Noise	Yes	No	N/A
1	Do workers feel noise levels are comfortable?	☐	☐	☐
2	Is there a program for noise reduction?	☐	☐	☐
3	Do workers know when and where hearing protection is necessary?	☐	☐	☐

	Machine Guarding and Mechanical Safety	Yes	No	N/A
1	Are machines securely attached to the floor?	☐	☐	☐
2	Do machines, such as paper cutters have guards on them?	☐	☐	☐
3	Have employees been told to report missing machine guards to their supervisors?	☐	☐	☐
4	Do employees know how to turn off machines in an emergency?	☐	☐	☐
5	Have employees been trained in how to work safely around machines?	☐	☐	☐
6	Are emergency cut-off switches easily located and identified, and do employees know where they are?	☐	☐	☐

	Chemical Hazards	Yes	No	N/A
1	Are chemicals (including pesticides, solvents, and cleaning products) properly labeled and stored?	☐	☐	☐
2	Are flammable and combustible liquids inside the buildings stored in flammable liquids cabinets?	☐	☐	☐
3	Has an inventory been done of toxic substances used in the workplace?	☐	☐	☐
4	Have Safety Data Sheets (SDS) been obtained for all chemicals you use?	☐	☐	☐
5	Has monitoring been done to make sure exposure levels are within legal limits?	☐	☐	☐
6	Are records of monitoring results available to employees?	☐	☐	☐
7	Are employees told where Safety Data Sheets on chemicals are kept?	☐	☐	☐
8	Is there adequate ventilation to keep levels of dust, vapors, gases, and fumes as low as possible?	☐	☐	☐
9	Are local exhaust ventilation systems (such as fume hoods) provided at workstations where toxic chemicals are used, and are they tested regularly?	☐	☐	☐
10	Has annual training been conducted for all employees who use chemicals?	☐	☐	☐

	Biological Hazards, Sanitation and Housekeeping	Yes	No	N/A
1	Are adequate toilet facilities provided and well maintained?	☐	☐	☐
2	Are there sinks with hot and cold water, and disposable hand towels?	☐	☐	☐
3	Are insects and rodents adequately controlled?	☐	☐	☐
4	Are there clean eating areas separate from work and chemical storage areas?	☐	☐	☐
5	Are there enough trash containers and are they well-maintained, leak-proof, and emptied regularly?	☐	☐	☐
6	Are required washing techniques and public health notices posted in restrooms and washing stations?	☐	☐	☐

	Ergonomic Hazards	Yes	No	N/A
1	Can employees get help when lifting more than 30 pounds?	☐	☐	☐
2	Have employees been trained in proper lifting methods?	☐	☐	☐
3	Are mechanical lifting devices available if needed?	☐	☐	☐
4	Are job tasks that require repetitive movements varied or rotated?	☐	☐	☐
5	Are computer and/or other workstations set up to avoid awkward postures and to fit the individual needs of workers?	☐	☐	☐
6	Are employees able to avoid staying in one position, standing or sitting for long periods of time?	☐	☐	☐
7	Are workstations, background and screen lighting compatible and adjustable?	☐	☐	☐
8	Are monitor screen positions adjustable?	☐	☐	☐

	Employer Postings	Yes	No	N/A
1	Is the Cal/OSHA Poster "Safety and Health protection on the Job" displayed in a prominent location where all employees are likely to see it?	☐	☐	☐
2	Are emergency telephone numbers posted where they can be readily found in case of emergency?	☐	☐	☐
3	Where employees may be exposed to any toxic substances or harmful physical agents, has appropriate information concerning employee access to medical and exposure records, and "Safety Data Sheets", etc., been posted or otherwise made readily available to affected employees?	☐	☐	☐
4	Are other California and Federal posters properly displayed, such as: Harassment, EEO, payday notice?	☐	☐	☐
5	Are OSHA Summary of work-related injuries and illnesses posted in the months of February, March and April?	☐	☐	☐

	Communicable Diseases	Yes	No	N/A
1	Do you have communication with staff on how to prevent the spread of communicable virus?	☐	☐	☐
2	Are there handwashing stations, hand sanitizer, and/or disinfection wipes available?	☐	☐	☐
3	Is there visible information and instruction to clients and visitors on reducing the spread of viruses while in the workplace?	☐	☐	☐

	Other Safety Issues	Yes	No	N/A
1	Are hot surfaces guarded to prevent accidental contact?	☐	☐	☐
2	Are sharp objects properly stored so they don't present a hazard?	☐	☐	☐
3	Do furniture and equipment have seismic restraints or bracing?	☐	☐	☐
4	Is shelving secured to walls or floors?	☐	☐	☐
5	Is there a security system to protect against intruders who might commit an assault in the workplace?	☐	☐	☐
6	Do have a working procedure for handling in-house employee complaints regarding safety and health?	☐	☐	☐

	General Workplace Issues	Yes	No	N/A
1	Does the workplace have a written Injury and Illness Prevention Program (IIPP) as required by Cal/OSHA, and has a responsible person been identified?	☐	☐	☐
2	Have all employees received health and safety training?	☐	☐	☐
3	If medical and first aid facilities are not in proximity of your workplace, is at least one employee on each shift currently qualified to render first aid?	☐	☐	☐
4	Is there a written Emergency Action Plan and have all employees been trained in what to do during an emergency?	☐	☐	☐
5	Is there Medical Provider Network info posted?	☐	☐	☐
6	Are first aid kits easily accessible to each work area, with necessary supplies available, periodically inspected and replenished as needed?	☐	☐	☐

Other Hazards in Our Workplace

_____
_____

Notes

_____
_____
_____
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_____
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_____
_____
_____

FAQ About Work Experience

- **What is the Work Experience program?**
  Mother Lode Job Training's Work Experience program is designed to assist individuals with little or no direct experience get training to better prepare them to enter the work force. The training provided can be in the area of work ethic and basic work skills or to enhance or update current skills. In this program Mother Lode Job Training will cover the participant's wages and the Workman's Compensation for a designated training period.

- **Who can participate in the Work Experience program?**
  Any employer who is established in the area and is not in the process of a layoff of employees.

- **Why would I be interested in a Work Experience?**
  It is a win-win situation. The employer can add needed workforce at no expense to the employer in exchange for their expertise in training. The employee, as he/she gain skills, has the opportunity to exhibit their potential and apply new skills directly to their job position.

- **Will there be paperwork involved?**
  All necessary paperwork and tracking will be prepared by Mother Lode Job Training, with input from the employer. The employer's only responsibility is to assist the "trainee" in submitting a timesheet, every two weeks, in a timely manner.

- **Will a representative from MLJT visit the work site?**
  MLJT representative will visit periodically throughout the Work Experience, to review progress and ensure the employee's success.

- **What would be required of me to participate?**
  The employer would assign a qualified worker to supervise and provide the trainee with instruction on how to successfully perform job tasks throughout the training period.

- **How is Worker's Compensation coverage handled?**
  Mother Lode Job Training will provide Worker's Compensation coverage in accordance with California State Law for the duration of the Work Experience.

- **What happens at the end of the Work Experience contract?**
  The employer is welcome to hire the participant if a position is available. If not, the participant will leave with their new skills to seek permanent employment.

- **How do I become involved in the Work Experience program?**
  Contact your local Mother Lode Job Training office at the location shown below:

☐Administration
197 Mono Way Suite B
Sonora, CA 95370
209-533-3396

☐Amador County
1 Prosperity Court
Sutter Creek, CA 95685
209-223-3341

☐Calaveras County
7 Main St.
P.O. Box 1002
San Andreas, CA 95249
209-754-4242

☐Mariposa County
5362 Lemee Lane
P.O. Box 1915
Mariposa, CA 95338
209-966-3643

☐Tuolumne County
197 Mono Way Suite B
Sonora, CA 95370
209-588-1150

ITEM 10

CALAVERAS PUBLIC UTILITY DISTRICT

MEMORANDUM

DATE: SEPTEMBER 14, 2021

TO: BOARD OF DIRECTORS

FROM: JOHN KINGSBURY, INTERIM GENERAL MANAGER

SUBJECT: LIABILITY, PROPERTY, AND WORKERS' COMPENSATION PROGRAMS RISK ASSESSMENT

On August 24, 2021, ACWA-JPIA conducted a site visit to provide an update on the district's operations, review loss history, and evaluate for risk exposures. The representative applauded staff for its efforts to update the front office furniture and improve the ergonomics for the staff located in the office.

ACWA-JPIA encouraged the district to submit a Risk Control Grant application to aid upgrades and improvements for safety, security and emergency evacuation at the main office. Such improvements could include the customer service counter, eliminating blind spots with cameras or convex mirrors, and providing an alternative exterior egress path. Currently, there are multiple exits from the building, but all exterior paths lead to the building's east side. The district can consider erecting an alternative route to a secure pedestrian gate located at the property's southwest corner.

Discussion on potential grant opportunities, including this grant opportunity has been recently discussed with Fawn McLaughlin. As the Board, Fawn has been very successful writing grants for the Mokelumne Sanitary District and has interest in working with CPUD. To open this opportunity working with Fawn, I have asked her to consider writing the Risk Control Grant. The grant is for $10,000. If this relationship develops, other grant opportunities would be explored, such as project management for fuels reductions, water loss control, meter replacement, water efficiency improvements, and aging infrastructure, etc.

Recommendation:

1. Authorize staff to partner Fawn McLaughlin on the Risk Control Grant application and return in October with a proposed contract.
2. Direct staff to coordinate Board member signatures on the Certificate of Excellence provided by ACWA-JPIA, suitable for framing and posting.

September 8, 2021

Mr. John Kingsbury, Interim General Manager
Calaveras Public Utility District
P. O. Box 666
San Andreas, California 95249-0666

RE: LIABILITY, PROPERTY, AND WORKERS' COMPENSATION PROGRAMS RISK ASSESSMENT

Dear Mr. Kingsbury:

This letter is a follow-up to my site visit on August 24, 2021. The purpose was to obtain an update on Calaveras Public Utility District (CPUD) operations, review loss history, and evaluate for risk exposures. The District is applauded for its efforts to update the front office furniture and improve the ergonomics for the staff located in the office. Please thank Carissa Bear, Administrative Account Assistant, for her time and consideration. Below are highlights of our discussions and related ACWA JPIA resources.

Loss History

The District's loss history over the last five years was reviewed with an emphasis on claims that occurred in the previous policy year. These claims have the most impact on pooled coverage costs; and can assist with identifying trends, training, and best practices for risk reduction efforts.

Liability

The District experienced four liability claims in the last five years. Two claims have occurred since the last visit. Of the two new claims, one was related to a mismarked line. Although the loss was minor in this case, the mismarking of lines by the District or other utilities can lead to severe loss or injury. The following resources can aid the District in reducing the risk of future mismarks of its lines, and detect when other utilities may have mismarked before a District excavation task.

- JPIA Qualified Underground Line Locator Form – The form helps document staff that has been designated and assigned as a "qualified" underground locator based on training, experience, and demonstrated skills. The form also provides a section to evaluate and record a review of the equipment used, electromagnetic locating, system plan review, and other related topics.
- USA North 811 California Damage Prevention Certification – A no-cost comprehensive online training program specifically designed to positively impact the reduction of damage to subsurface installations while improving overall excavator knowledge and safety.

Workers' Compensation and Property
The District had three workers' compensation and two property claims in the last five years. Although most of these claims were discussed during the previous visit, this trip provided an opportunity to again share some of the resources shared in 2019, along with the new Risk Control Manual discussed later. I encourage the District to review these resources and reach out for assistance if needed.

Please note, there have been recent changes to the Property Program for the new Program year. Only new acquisitions will be eligible for coverage past July 1, 2021. After July 1, 2021, existing assets exceeding $100,000 may be considered for mid-year coverage. A full year's premium will be charged; no pro-rated payments will be accepted. This condition does not apply to vehicles or mobile equipment, which can continue to be updated throughout the year. For detailed questions about changes, don't hesitate to contact Debbie Kyburz in Member Services at (916) 786-5742.

Professional Development Program
We discussed the JPIA's Professional Development Program (PDP). The PDP provides an opportunity for a member's staff to enhance their knowledge and perform their jobs safely, legally, and efficiently. The PDP would be especially beneficial to new supervisors and operations staff by maximizing personal and organizational success.

There are three areas or tracks within the PDP: Operations, Supervisor Basics, and Human Resources. Each area focuses on risk identification, effective leadership skills, and can prepare them for advancement. Each area's courses include face-to-face training, online and self-study options, and various activities such as an H.R. LaBounty Safety Award nomination.

Commitment to Excellence
This meeting provided an opportunity to review the JPIA's "Commitment to Excellence" Program (C2E). Our records show that the District was sent a C2E certificate in 2019; however, the JPIA has not received a signed copy. A new copy of the C2E certificate is attached for the Board and your review and signature. Having a signed C2E certificate meets one of the prerequisites for the JPIA's Risk Control Grant Program.

A Risk Control Grant application could be submitted to aid the District with security and emergency evacuation upgrades at the main office. Updates that could include the customer service counter, eliminating blind spots with cameras or convex mirrors, and providing an alternative exterior egress path. Currently, there are multiple exits from the building, but all exterior paths lead to the building's east side. The District can consider erecting an alternative route to a secure pedestrian gate located at the property's southwest corner.

The C2E Program also encourages members to review its current risk control practices to see where improvements could be made related to loss history and exposures. The "Opportunity Review," found on the JPIA's website, is an excellent way for the District to conduct this review. The review can also help develop a roadmap and help prioritize actions the District can take to improve its loss prevention program. I recommend starting with the *Infrastructure* and *Construction* tabs found in the review. In the coming months, we can connect to review the Opportunity Review in additional detail.

Risk Control Manual (RCM)
Finally, we discussed that the RCM is a resource that members can use to develop or update their safety and loss control program policies. The manual has 27 specific sections where members can find sample programs, forms, and checklists tailored to meet specific needs. During our meeting, we reviewed the following sections:

- **Section 1 Injury/Illness Prevention Program (IIPP) –** Earlier this year, I collaborated with Donna Leatherman, former District General Manager, to update the District's IIPP. The Cal/OSHA IIPP Self-Assessment Checklist can be used to help staff complete this update and produce an effective IIPP.
- **Section 16 Ergonomics** – Besides containing the JPIA's Sample Lifting JHA, shared in the 2019 JPIA Risk Assessment, this section includes a sample ergonomic program and the Cal/OSHA Easy Ergonomics for Desktop Computer user guide. Each of these resources can improve ergonomics and reduce sprain/strain injuries in the District.
- **Section 27 Wildfire Preparedness –** Contains information to aid in preparing for wildfires, such as the EPA Wildfire Incident Plan, and wildfire smoke, including links to AirNow.gov that will inform staff of current and forecasted air quality.

I want to thank Calaveras Public Utility District for its membership and participation in the pooled programs. Don't hesitate to contact me if you have questions or need further assistance. I can be reached at (530) 400-5629 or contact me via email at tbenzing@acwajpia.com.

Sincerely,

Thor Benzing, CSP, CEAS II
Senior Risk Control Advisor

908:tl

Enc: C2E Certificate

c: JPIA Member Services
JPIA Risk Management Committee
John Lavaroni, JPIA Board Member

JPIA Risk Control Grant Program
Program Description

PROGRAM DEADLINES

Applications may be submitted between October 1, 2021 and December 1.

Submit no later than December 1, 2021.
Approval notification: By March 1, 2022.

PURPOSE

The purpose of the JPIA's Risk Control Grant Program (Grant Program) is to promote the implementation of best practices that will prevent or mitigate losses in the JPIA's Workers' Compensation, General Liability, and Property Programs. The historical loss areas for these programs serve as the foundation for the best practices in the JPIA's Commitment to Excellence Program. The Grant Program will incentivize members to renew their Commitment to Excellence and review best practices applicable to their operations.

JPIA members are eligible for a grant of up to $10,000 to fund their risk management and safety program projects or equipment. This is accomplished by funding specific one-time, non-routine risk management or loss control programs or activities that are intended to address those risks.

ELIGIBILITY

- All JPIA members participating in at least two JPIA pooled programs: (Workers' Compensation, Liability, and/or Property Programs).
- The member has signed the Commitment to Excellence (C2E) Agreement.
- The member must have the C2E Agreement in place *before* submitting the Grant request, and it should accompany the Grant documents.
- Grant funds must be applied to best practices relevant to the pooled programs in which the member participates. This approach is consistent with the JPIA's Grant Program focus and supports other program elements such as the JPIA's H.R. LaBounty Safety Awards Program, ongoing risk assessments at member facilities,

consultative services to support a member's risk and safety programs, and onsite training delivery.

- The member must be current in their payment of premiums.

GRANT PROGRAM – COMMITMENT TO EXCELLENCE CATEGORIES

The JPIA's Commitment to Excellence (C2E) Program Best Practices are detailed in the *Loss Reduction Focus Menus* and *Explanations* available on the JPIA's website. A partial list of grant ideas as outlined below.

C2E Loss Reduction	Coverage Program	Grant Ideas
Infrastructure-Wildfire	Liability, Property	• Emergency plan for wildfire • Emergency equipment/supplies • Communication equipment
Vehicle Operations	WC, Liability, Property	• Vehicle equipment such as emergency strobes, high visibility stripes • Vehicle telemetries-GPS tracking • Smith System Train-the-Trainer or similar systems
Water Line Failure	Liability, Property	• Valve exercise/flushing program • Emergency response trailer • Underground line locating equipment and training • Fire hydrant check valve/flapper valve • Condition Assessment Study/Water Leak Study • Cathodic protection
Cyber Security	Liability, Property	• Cyber risk vulnerability testing • Incident response plan
Ergonomics Program	Workers' Compensation	• Ergonomic evaluations • Ergonomic Coordinator training • Ergonomic equipment purchase • Mobile workstation for trucks • Truck bed steps
Employment Practices	Liability	• Organizational consultant to offer coaching training/techniques for managers to better motivate or engage staff • Recruitment tracking software • Specialized training • HR software to track performance and document employee actions

EXCLUSIONS (include but are not limited to):

- Normal or routine maintenance projects or deferred maintenance, such as repair or serving equipment.
- Items normally covered in an operations budget.
- Projects deemed to be capital improvements. A capital improvement is defined as a non-recurring expenditure or any expenditure for physical improvements, including costs for

acquisition of existing buildings, land, or interests in land; construction of new buildings or other structures, including additions and major alterations; construction of streets and highways or utility lines; acquisition of fixed equipment; landscaping; and similar expenditures. It may mean any change, alteration, rearrangement, or addition to existing facilities. It is also new construction, acquisition, or improvements to sites, buildings, or service systems.

- Cost of labor (hiring personnel, wages including overtime). ***Exception:*** *Includes program, product, or service provided/performed by a certified, insured, licensed, and/or qualified individual or entity (i.e., Smith System Trainer, EPL specialized trainer, cyber vulnerability testing).*
- Non-safety work apparel.
- Expenditures for fines, penalties, and/or citations.

AWARD CRITERIA

A proposed Grant Program application will be reviewed and scored according to the stated criteria:

- Defined scope, process, or performance objective(s) that have a high probability of increasing employee safety, enhancing risk control, or reducing loss exposure(s).
- The grant request must show a results-oriented impact that is measurable and identifiable.
    - ***Data demonstrating the reduction of risk will enhance the possibility of the grant.***
- Defined solution to increasing employee safety, enhancing risk control, or reducing loss exposure(s).
    - ***Grant requests utilizing the hierarchy of hazard control system (eliminate or minimize a hazard) are strongly encouraged.***
- Be an effective and sustainable risk management or loss control process or procedure.
    - ***Grant requests that may provide a unique or innovative solution and assist our members with risk management and loss control techniques are encouraged.***

APPLICATION AND SELECTION PROCESS

The ACWA JPIA Risk Control Grant Program application must be prepared and responded to ***fully***. All responses to questions are required; otherwise, the application will be deemed incomplete.

A Grant Program application must be submitted with adequate documentation to support the stated use of funds with a General Manager's signature.

Priority will be given to grant applications that:

- Applying Grant Program funds to a JPIA Commitment to Excellence Program category consistent with their pooled program participation. Applying the grants to the Commitment to Excellence categories ensures that funds are used on best practices tied to JPIA's primary loss drivers.

Grant Program applications will be distributed on a first approved basis. Ten grants will be awarded or until all eligible funds have been expended. Small, medium and large districts will receive two awards respectively; the remaining four awards will be merit-based.

Applications will be approved by March 1, 2022. Members will be notified of their grant application status.

REIMBURSEMENT OF EXPENDITURES

Grant Program funds will be paid as reimbursements or initial investment for costs incurred within the scope of the project. To receive grant funding, the grant application must be submitted for projects ***initiated and completed within the fiscal year (10/1/21 – 9/30/22)***. Paid invoices and supporting documentation are required.

Upon completion of the project, members shall provide a report to the Risk Management Committee and Executive Committee summarizing the project goals and results achieved.

USE OF FUNDS CRITERIA

Grant Program funds shall be used solely for the implementation of the project as defined in the Grant Application and consistent with the Risk Control Grant Program. Funds may not be expended or otherwise encumbered or used for any other purpose without ACWA JPIA's prior written approval.

Members are required to provide ACWA JPIA with immediate written notification of their inability to expend funds under the grant, in whole or in part, for the purposes as described in the Grant Application, or if any expenditure is made for any purpose other than those for which the grant was requested and approved. Additionally, if the deliverables are not completed within the designated milestones as approved, or if the project is not showing progress to achieve program goals within the grant funding, ACWA JPIA reserves the right to immediately discontinue, modify, or withhold any payments under this conditional grant award.

Members agree to give ACWA JPIA full access to all project-related information, data, and analytics the member has access to under this grant.

ACCOUNTABILITY PROCESS

All grant fund awards are at the discretion of the JPIA, with the final decision by the JPIA CEO. The JPIA's Risk Control Manager will prepare an annual report on the grant fund utilization for presentation at the annual Risk Management Committee meeting.

Commitment to Excellence

Calaveras Public Utility District

and the ACWA JPIA in mutual support for ensuring the most consistent, cost effective and broadest possible affordable insurance coverage and related services, and in partnership with all JPIA members, and in the interest of reducing ***Calaveras Public Utility District's*** insurance costs, commit to a program of excellence that, through the implementation of "best practices" reduces the potential and frequency of:

- **Vehicle Losses**
- **Infrastructure Related Losses**
- **Construction Related Losses**
- **Employment Practices Claims**
- **Ergonomic (Musculoskeletal) and Fall Injuries**
- **Wildfire Prevention**

and fully support the goal of implementing effective preventative measures that work to achieve these loss reductions.

Walt "Andy" Sells (CEO, ACWA JPIA)
Signature

_____(General Manager)
Signature

_____(Board Member)
Signature

_____(Board Member)
Signature

_____(Board Member)
Signature

_____(Board Member)
Signature

_____(Board Member)
Signature

ITEM 11

CALAVERAS PUBLIC UTILITY DISTRICT

MEMORANDUM

SEPTEMBER 14, 2021

TO: BOARD OF DIRECTORS

FROM: JOHN KINGSBURY, INTERIM GENERAL MANAGER

SUBJECT: REDHAWK DAM - TREE ASSESSMENT

Redhawk Dam is the responsibility of the district. The reservoir capacity is approximately 400 a/f. There is concern over the growing number of dead and dying trees on the dam. Staff worked the district's Dam Safety Engineer, Mr. Rich Sanchez, and ACRT Pacific, a firm that specializes in the vegetation management challenges utilities, pipelines, DOT and railroads in the state of California. The objective of the assessment was to determine the health of the trees and report back to the Board. The assessment summary as shown in the PowerPoint presentation included herein is follows: 73 trees captured under assessment (96% Ponderosa pine | 4% Black oak)

Tree health population

58% healthy

33% defective

9% dead or dying with 24 trees prescribed for removal (38%)

38% are at high risk, 50% moderate risk, and 12% low risk

The trees pose a significant risk to the integrity of the dam, liability, and long-term exposure to the district. The district should explore options to potentially sell the asset and/or sell/transfer the water right to protect the long-term financial interests of the district.

Recommendation: Provide direction to staff and take action as necessary or required.

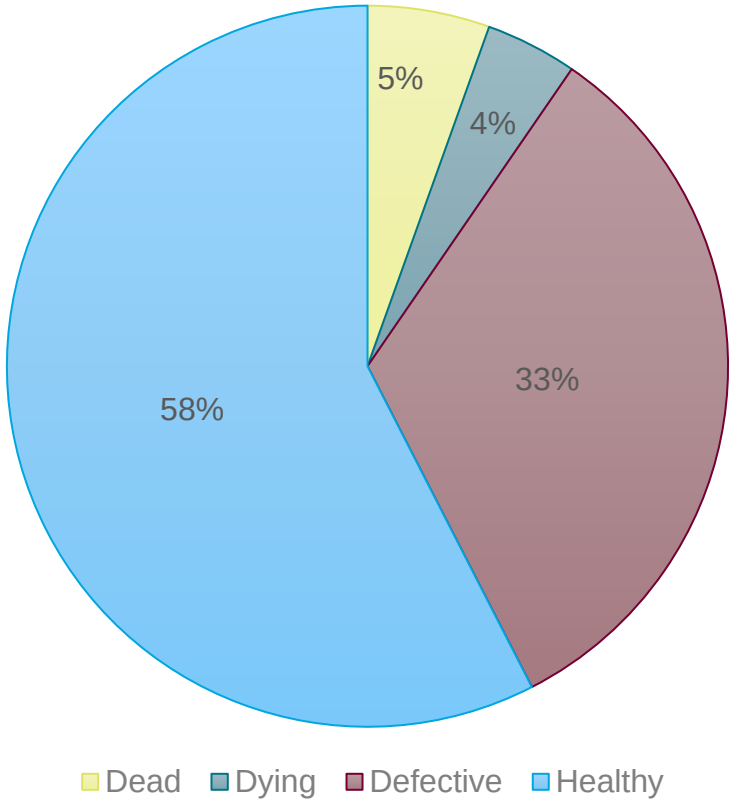
Calaveras Public Utility District

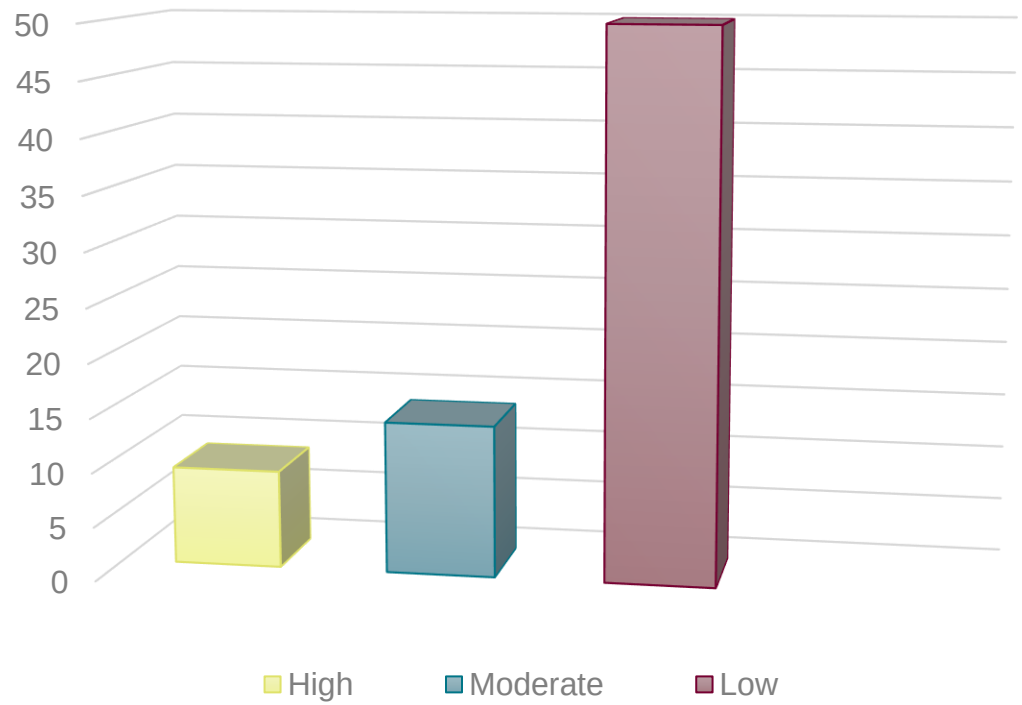
Redhawk Lake Tree Assessment Statistics

Assessment Data

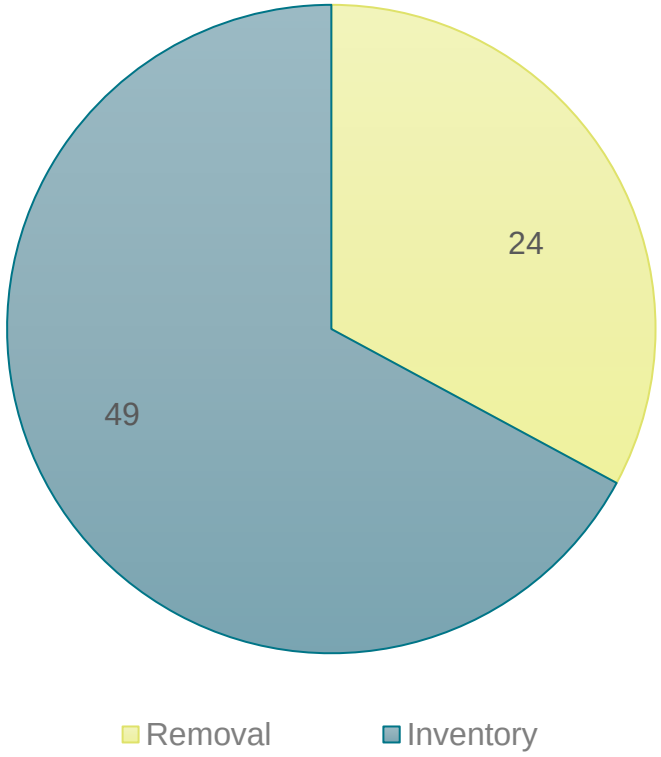
- 73 trees captured under assessment
- 96% Ponderosa pine | 4% Black oak
- Tree health population
  - 58% healthy
  - 33% defective
  - 9% dead or dying
- 24 trees prescribed for removal (38%)
  - 38% high risk
  - 50% moderate risk
  - 12% low risk

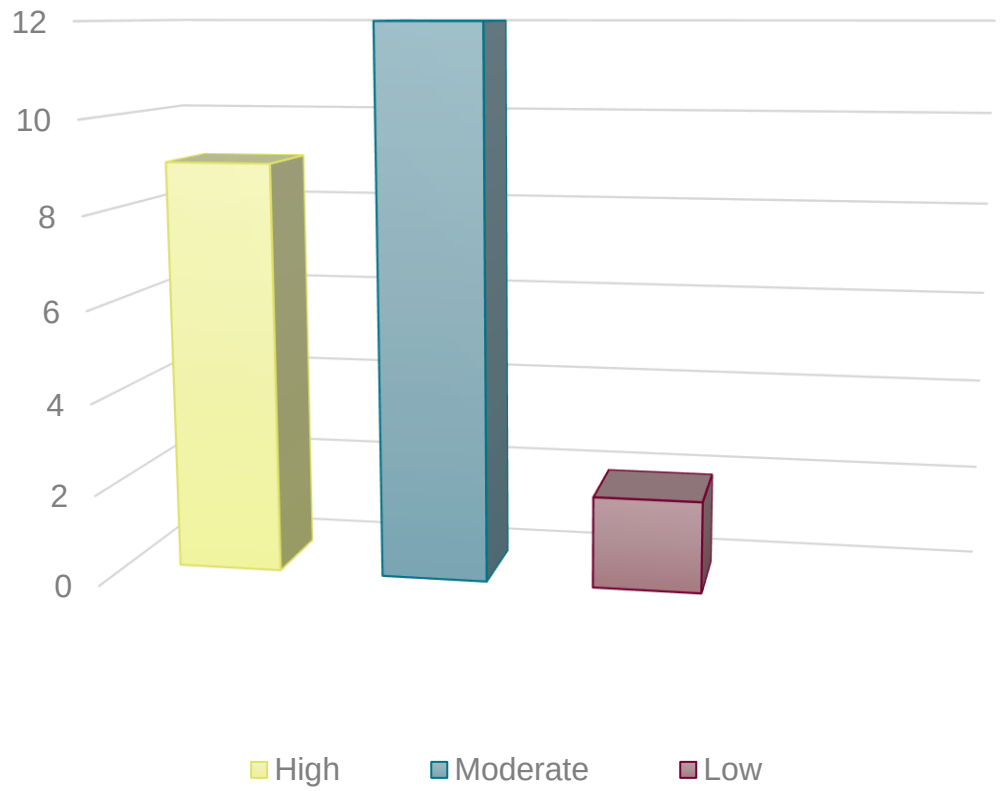
Health Condition and Risk Rating





Work Prescription / Prescription by Risk





Thank you for the business

Our Independent Promise

We empower the best people to help sustain our world.
100% employee-owned. Independence guaranteed.

ACRT PACIFIC

Circuit = Calaveras

Manifest (6/16/2021 1:48:22 PM)

Site	Work Type	Qty	DBH	Condition	Specie	Height	Priority	Comments	Lat	Long
10	Removal	1	25	Green With Defects	Pondersona Pine	37	Low	Trees central leader has broken off and lateral branch has asuumed apical dominance. Poor or week attatchment at branch/trunk union. Small wound, minor reaction wood and sapping at base of tree. Evedience of small pocket of decay.	38.3254066666667	-120.494341666667
20	Removal	1	49	Dead	Pondersona Pine	39	High	Tree has sings of previous beetle infestation all thouout base. Top has broken out 39 feet up trunk after decline. No needles an bark is sluffing off. Evidence of ant population.	38.3252216666667	-120.49425
30	Inventory	1	37	Green Healthy	Pondersona Pine	130	Low		38.3251475456163	-120.494218716066
40	Removal	1	43	Green With Defects	Pondersona Pine	145	Moderate	Large sapping canker at base of tree with moderate reaction wood. Evidence of decay. Observed ant poulation at base of tree.	38.3251033333333	-120.494255
50	Removal	1	45	Green With Defects	Pondersona Pine	114	Moderate	Tree has undermined root system with large woody roots exposed from erosion. Large ant population in roots and possible decay.Tree has signs of fresh beetle attacks. Tree also has signs of western gaul rust.	38.325025	-120.494156666667
60	Removal	1	34	Dead	Pondersona Pine	101	High	Tree is codominant at base with major included bark and signs of decay at base of tree. Ant population was observed in base and root structure. Root system has been undermined by erosion. Large woody roots are exposed.	38.3249793213173	-120.494170651981
70	Removal	1	25	Green With Defects	Pondersona Pine	63	Moderate	Tree has major undermined roots from erosion and signs of decay in root system. Observed large ant population in decayed roots.	38.3249285870049	-120.494151960392
80	Removal	1	45	Green With Defects	Pondersona Pine	145	Moderate	Trre is codominaint at base wth major reaction wood and included bark that is sapping. Central leader stem is also codominant with major lean to lake.Root system is undermined from erosion. major woody roots are exposed and show signs of decay. Large ant population was observed in exposed root system.	38.3248564908767	-120.494159971073
90	Removal	1	34	Green With Defects	Pondersona Pine	144	High	Tree has major canker/wound at base of tree with poor sapping reaction wood. Signs of decay at base of tree with possible decay in root system. Root system has been undermined by erosion and woody roots are exposed.Observed large ant poulation in base of tree and root crown.	38.3247937405429	-120.494163976413
100	Removal	1	28	Green With Defects	Pondersona Pine	141	Moderate	Tree has large sapping canker at base of tree and root crown. Possible decay in base and root crown. Tree has undermined roots from erosion and large woody roots are exposed. Observed large ant population at base in canker and decayed roots.	38.3247523520249	-120.49413593903
110	Inventory	1	45	Green Healthy	Pondersona Pine	145	Low	minimal root exposure from undermined bank	38.324705	-120.494108333333
120	Inventory	1	21	Green Healthy	Pondersona Pine	55	Low	minimal root exposure from undermined bank.	38.3246695749888	-120.494117247441
130	Inventory	1	27	Green Healthy	Pondersona Pine	116	Low	minimal root exposre from undermined bank	38.3245933333333	-120.494115
140	Inventory	1	32	Green Healthy	Pondersona Pine	158	Low	minimal root exposure fro undermined bank	38.324573446818	-120.494100558523

150	Inventory	1	35	Green Healthy	Pondersona Pine	168	Low	minimal root exposure from undermined bank.	38.3245614307966	-120.494101893636
160	Inventory	1	37	Green Healthy	Pondersona Pine	130	Low	minimal root exposure from undermined bank.	38.324544741878	-120.494098555853
170	Inventory	1	30	Green Healthy	Pondersona Pine	130	Low		38.3245066911437	-120.494096553182
180	Inventory	1	36	Green Healthy	Pondersona Pine	157	Low		38.3244819915443	-120.494093215399
190	Inventory	1	30	Green Healthy	Pondersona Pine	155	Low		38.3243995104584	-120.494118562528
200	Inventory	1	36	Green Healthy	Pondersona Pine	140	Low	Tree is has a 20 degree lean at base to lake with minimal root exposure from undermined roots. Tree has self corrcted 70 feet up trunk.	38.3244282153983	-120.494108549177
210	Inventory	1	40	Green Healthy	Pondersona Pine	130	Low	minimal root exposure from undermined bank	38.3243688028483	-120.494094530485
220	Removal	1	62	Green With Defects	Pondersona Pine	140	Moderate	Tree is codominant from root collar. Major root exposure from erosin on undermined bank.	38.3243260347129	-120.494090146862
230	Removal	1	22	Green With Defects	Pondersona Pine	129	Moderate	Major root expose from erosion on undermined bank.	38.3242652870494	-120.494088477971
240	Removal	1	31	Green With Defects	Pondersona Pine	136	Moderate	Major root exposure from eroision on undermined bank. Possible decay in root system.	38.3242419225634	-120.494083805073
250	Inventory	1	31	Green Healthy	Pondersona Pine	142	Low		38.3242279038718	-120.49408046729
260	Removal	1	26	Dying	Pondersona Pine	123	High	1/3 of canopy has declined. Sharp bend in trunk shows previous damage to tree. 15% lean to lake. Major woody roots exposed from erosion on undermined bank.	38.3241711615487	-120.494065447263
270	Inventory	1	30	Green With Defects	Pondersona Pine	142	Low	Minimal Root exposure from erosion of undermined bank.Tree has codominant top.	38.3241477970627	-120.494056769025
280	Inventory	1	30	Green Healthy	Pondersona Pine	145	Low	minimal root exposure due to erosion on undermined bank.	38.3241421228304	-120.494055100133
290	Inventory	1	20	Green Healthy	Pondersona Pine	111	Low		38.3240973965287	-120.494047089453
300	Inventory	1	23	Green Healthy	Pondersona Pine	138	Low		38.3240686915888	-120.49404341789
310	Inventory	1	30	Green Healthy	Pondersona Pine	135	Low		38.3240453271028	-120.494038411215
320	Inventory	1	20	Green Healthy	Pondersona Pine	112	Low		38.3240276368491	-120.494036408545
330	Removal	1	31	Green With Defects	Pondersona Pine	116	Moderate	Tree has codominant top with another codominant stem. Major woody roots exposed from erosion of undermined bank.	38.3240009345794	-120.494033738318
340	Inventory	1	26	Green Healthy	Pondersona Pine	120	Low		38.3239925901201	-120.494031735647
350	Inventory	1	21	Green Healthy	Pondersona Pine	116	Low		38.3239628838451	-120.49402706275
360	Inventory	1	15	Green With Defects	Pondersona Pine	109	Low	Tree has codominant top with sharp bend in trunk from previous damage. Poor trunk/branch attatchment.	38.3239398531375	-120.494024726302
370	Inventory	1	25	Green Healthy	Pondersona Pine	130	Low		38.3239288384513	-120.494022389853
380	Removal	1	30	Dead	Pondersona Pine	140	High	Tree is dead with fruiting bodies all throuout trunk.Major woody roots exposed from erosion of undermined bank.	38.3238877837116	-120.494019052069

390	Removal	1	26	Green With Defects	Pondersona Pine	128	Moderate	Tree has large wound at base. Reaction wood and wound closure is poor. Decay in base of tree. Observed large ant poulation in decay pocket.	38.3238784379172	-120.494020387183
400	Inventory	1	26	Green Healthy	Pondersona Pine	114	Low		38.3238130173565	-120.494016381842
410	Inventory	1	28	Green With Defects	Pondersona Pine	118	Low	Tree has codominant top with10%lean to lake.	38.3237783044059	-120.494016715621
420	Inventory	1	16	Green With Defects	Pondersona Pine	75	Low	Tree has codominat top	38.323732576769	-120.494021388518
430	Removal	1	28	Dying	Pondersona Pine	72	High	Trees top broke out and is showing signs of decline.Minimal roots exposed from erosion of undermind bank.	38.3237045393858	-120.494022723631
440	Inventory	1	26	Green With Defects	Pondersona Pine	125	Low	Tree has codominat top.	38.3236831775701	-120.494025393858
450	Inventory	1	12	Green Healthy	Pondersona Pine	67	Low		38.3236578104139	-120.494029399199
460	Inventory	1	22	Green Healthy	Pondersona Pine	51	Low		38.3236277703605	-120.494038744993
470	Inventory	1	14	Green Healthy	Pondersona Pine	56	Low		38.323512283044	-120.494042082777
480	Inventory	1	12	Green Healthy	Pondersona Pine	35	Low	Tree has 10% lean to lake and is growing out oof dam bank	38.3233433911882	-120.494062777036
490	Removal	1	18	Green With Defects	Black Oak	60	Moderate	Tree has pockets of decay throught full trunk of tree, poor reaction wood an previos limb failures. Epecormic sprouts throught whole tree.	38.3230940274872	-120.493829047251
500	Removal	1	15	Dying	Black Oak	45	High	Tree is declining. Has 1/8 of canopy alive. Some epecormic sprouts and dead wood along main trunk. Previous limb failures.	38.3229535358659	-120.493882139084
510	Inventory	1	14	Green Healthy	Pondersona Pine	48	Low		38.3226798376016	-120.493926197829
520	Inventory	1	57	Green With Defects	Pondersona Pine	170	Moderate	Tree has Tri-dominant leaders.3 stems from 1 trunk. Major incuded bark on all 3 sides Creating 3 weak attatchment points. Reaction wood surounding inclusion is showing signs of previous sapping. failure within 5 years is improbible but if failure does occure would be catostrophic to dams structual integrety.	38.3225124323255	-120.493871602995
530	Inventory	1	30	Green Healthy	Pondersona Pine	165	Low		38.3237528860703	-120.494105778817
540	Removal	1	27	Green With Defects	Pondersona Pine	155	Moderate	Tree has large wound at base with poor reaction wood an closure. Wound is sapping. Signs of decay at base.	38.3238797218513	-120.494115124611
550	Inventory	1	32	Green Healthy	Pondersona Pine	153	Low		38.3239110970182	-120.494125137962
560	Inventory	1	32	Green Healthy	Pondersona Pine	160	Low		38.3239418046284	-120.494129810859
570	Inventory	1	27	Green Healthy	Pondersona Pine	155	Low		38.3239845282599	-120.494131813529
580	Inventory	1	18	Green Healthy	Pondersona Pine	140	Low		38.3240305896751	-120.494129143302
590	Inventory	1	11	Green With Defects	Pondersona Pine	50	Low	Treehas broken top	38.3240572919448	-120.494110451714
600	Inventory	1	15	Green Healthy	Pondersona Pine	120	Low		38.3240806564308	-120.494113789497

610	Removal	1	39	Green With Defects	Pondersona Pine	150	Low	Tree has codominant top with maroj included bark at inclusion. Reaction wood an sapping at inclusion.	38.3240953426791	-120.494122467735
620	Inventory	1	37	Green Healthy	Pondersona Pine	160	Low		38.3241120315977	-120.494124470405
630	Inventory	1	27	Green Healthy	Pondersona Pine	145	Low		38.3241353960836	-120.494101773476
640	Removal	1	22	Green With Defects	Pondersona Pine	135	Moderate	Large wound/Canker at base of tree. poor reaction wood and wound closure. Decay is present.	38.3241620983533	-120.494118462395
650	Removal	1	42	Green With Defects	Pondersona Pine	145	High	Major decay at base of tree.Large wound with poor reaction wood. Previous fire damage. Observed large ant population in decayed trunk. Possible decay up trunk from the open wound.	38.3243894971073	-120.494200672007
660	Inventory	1	42	Green Healthy	Pondersona Pine	140	Low		38.324535	-120.494215
670	Inventory	1	47	Green Healthy	Pondersona Pine	160	Low		38.3245391476149	-120.494223456092
680	Removal	1	38	Dead	Pondersona Pine	155	High		38.3246005888062	-120.494226519761
690	Inventory	1	24	Green Healthy	Black Oak	65	Low		38.324666199377	-120.494228375612
700	Inventory	1	42	Green Healthy	Pondersona Pine	155	Low	Tree has previous wound at base of tree. Great reaction wood an wound closure.	38.3247055852248	-120.494277107254
710	Inventory	1	39	Green Healthy	Pondersona Pine	145	Low		38.3249753159768	-120.494452360926
720	Inventory	1	35	Green Healthy	Pondersona Pine	155	Low		38.3251195082332	-120.49442699377
730	Inventory	1	51	Green Healthy	Pondersona Pine	150	Low		38.3252920426654	-120.494455504665

Item 12

CALAVERAS PUBLIC UTILITY DISTRICT

MEMORANDUM

DATE: SEPTEMBER 14, 2021

TO: BOARD OF DIRECTORS

FROM: JOHN KINGSBURY, INTERIM GENERAL MANAGER

ADAM BROWN, LEGAL COUNSEL

SUBJECT: DISCONTINUED WATER SERVICES AND BILLING PRACTICES RELEVANT TO RESOLUTION NO. 2003-27

At its June 8, 2021 meeting, the Board reaffirmed the Board's policy to bill and recover the minimum monthly base charge once a meter has been installed. This agenda is to modify Resolution No. 2003-27 to reflect the Board direction, and take further action as recommended.

Background:

Briefly, in November 2003, the Board adopted Resolution No 2003-27 establishing rules and regulations governing the operation of the water system.

Resolution 2003-27 established three (3) rules:

1. Water service discontinued for more than one year shall be considered an abandoned water service.
2. An abandoned water service may be removed by the district.
3. Where water service has been abandoned, water service shall not be provided until all conditions of a new service are met including payment of current fees and changes for a new service.

The district sets rates and charges to recover the cost of providing service. CPUD is required to maintain the treatment, transmission, storage, and distribution facilities necessary to serve each property that has paid Water Connection Charges, regardless of how much water is used by a customer.

The Monthly Minimum Fixed Charge and Water Usage Tiered Rates fund operations including personnel, supplies, services, state and federal mandates, insurance, legal and consulting services, utilities, routine capital and other operation expenses.

It is critical that the district generate revenue to maintain a high level of service providing safe and reliable water service to its customers, regardless of usage. Once the meter

has been installed, the district obligates itself to operate and maintain the water system. As such, the district bills the applicable monthly minimum charge.

The district needs to apply the monthly minimum billing charge on discontinued services. Services that have been discontinued and abandoned over one (1) year should be removed. Removing the meter will prevent tampering and provide for a new or upgraded technological meter if and when the customer requests a new service.

Recommendation:

1. Adopt Resolution 2021-9
2. Direct staff to notify the customers discontinued but not yet considered abandoned, apply the monthly minimum billing charge moving forward, and advise them of the conditions of a new service.
3. Direct staff notify the customers considered abandoned and advise them that their meter will be removed, advise them of the conditions of a new service connection, but also provide these customers the **option** to pay the monthly minimum charge moving forward, in lieu of a meter removal.
4. Add the following to the Water Rate Schedule and place on the CPUD website.

Overview of Treated Water Billing Components

CPUD sets rates and charges to recover the cost of providing service. CPUD is required to maintain the treatment, transmission, storage, and distribution facilities necessary to serve each property that has paid Water Connection Charges, regardless of how much water is used by a customer. CPUD's treated water rate structure has two charges; Monthly Minimum Fixed Charge and a Water Usage Commodity Charge (water tier rates based on water use). The fixed charge is billed and payable whether or not any water is used and is prorated based on the number of days in the billing period.

The Monthly Minimum Fixed Charge and Water Usage Tiered Rates fund CPUD's operations including personnel, supplies, services, state and federal mandates, insurance, legal and consulting services, utilities, routine capital and other operation expenses.

CALAVERAS PUBLIC UTILITY DISTRICT
RESOLUTION NO. 2021-9 (Modifying Resolution 2003-7)

WHEREAS, the Board of Directors of the Calaveras Public Utility District, a public agency formed and existing under the California Public Utility District Act, Public Utilities Code Section 15501, *et seq*., adopted Ordinance 73-1 on February 13, 1973, establishing rules and regulations governing the operation of the water system; and

WHEREAS, on November 12, 2003, the Board of Directors passed and adopted Resolution No. 2003-7 regarding the treatment of discontinued and abandoned water services; and

WHEREAS, the Board of Directors has determined that in order to fund and maintain District operations and ensure the equitable and consistent application of the District's duly adopted rates and charges, that the District's monthly minimum billing charge be imposed and collected on discontinued water services that have not been abandoned and disconnected from the District water system; and

WHEREAS, the Board of Directors finds that it is in the best interests of the District and the public to amend Resolution No. 2003-7 to reflect the foregoing determination as set forth below.

NOW, THEREFORE, IT IS HEREBY RESOLVED by the Board of Directors of the Calaveras Public Utility District as follows:

1. District Resolution No. 2003-7 is hereby affirmed;

2. Where water service or usage has been discontinued but not abandoned, the water service shall remain subject to the District's monthly minimum billing charge (as such may be amended from time to time); and

3. Except as amended herein, Resolution No. 2003-78 shall remain unaltered and shall continue in full force and effect.

PASSED AND ADOPTED at a Regular Meeting of the Calaveras Public Utility District Board of Directors at San Andreas, California this 14th day of September, 2021.

Signed: _____
J.W. Dell'Orto, President of the Board of Directors

Attest: _____
Carissa Bear, Clerk of the Board/Secretary

Monthly Maintenance Report
August 2021

LOCATION	DESCRIPTION OF WORK	STATUS
Jeff Davis WTP	Monthly operation and maintenance	Complete
	Routine water sampling and State reporting, WTP compliance Items	Complete
	Treated Water - 43,001,609 gallons	Complete
	Sold Water-•Total Sold Water 39,352,910 gallons	Complete
	ClearWell Project-start of Phase 1	Ongoing
Warehouse Shop	Routine Operation's	Ongoing
South Fork Pump Station	Weekly routine checks	Complete
	Raw Water Pumped = 0	ongoing
Schaads Reservoir	Weekly checks	Complete
	Schaads metered Raw water customer 1,049,810 Gallons	Complete
	Units are off, High Water Temp	Complete
	Schaads maintenance Ferc/DSOD items	Ongoing
Glencoe Pump Station	Weekly checks - routine monitoring	Complete
Ponderosa PRV Hydro	Weekly checks - routine monitoring	Complete
		complete
MCV PRV Hydro	Weekly checks - routine monitoring	Complete
Garamendi's PRV Hydro	Weekly checks - routine monitoring	Complete
San Andreas Distribution	Routine operations, sampling	Complete
	Leak Service line Mariposa St.	Complete
	Leak 2" Steel Hildebrandt/Pope	Complete
	Leak 4" steel pipe on Pope St.	Complete
		Complete
Moke Hill Distribution	Routine operations, sampling	Complete
	Leak 2" service line Hwy x Ponderosa/26	Complete
	MokeHill Center St. Flushing (from fire)	Complete
	Meter locations and easements(Diamond maps)	Ongoing
Glencoe Distribution	Routine operations	Complete
	Leak Repair on A.C (Near G.C Pump Station)	Complete
		Complete
Paloma Distribution	Routine operations, sampling	Complete
		Complete
Rail Road Flat Distribution	Routine operations, sampling	Complete
	2" ARV/Vacuum replacement on Transmission Line	Complete
Safety/Training	Routine Safety/pre-const. Talks	Complete
Spray Program	Spring pre-emergent	Ongoing
		Complete
Vehicle Maintenance	#8 oil Change	Complete
		Complete

Monthly Maintenance Report
August 2021

Other	57 USA tags completed	Complete
	New Service Install at Milano road, M.H	Complete
	New Service Install W. Murray Creek S.A	Complete
	New Service Install at Howell road, S.A	Complete
	39 Customer service/work orders	Complete
	Monthly meter reading	Complete
	Complaints-1 Odor	Complete
	complaints -1 Pressure	Complete
	Total Pending service inquiries =5	Ongoing
	Revision of Operations Plan	Pending
	Annual Diversion And Use Report All 4 complete	Complete
	Pre-1914 water rights unavailability	Ongoing
	Upper Mokelumne River Watershed Sanitary Survey (WSS) DRAFT	Pending