

Humboldt Bay Municipal Water District 828 7th Street, Eureka



Agenda for Regular Meeting of the Board of Directors

January 11, 2024

Meeting Start Time: 9:00 AM

District Mission

Reliably deliver high-quality drinking water to the communities and customers we serve in the greater Humboldt Bay Area at a reasonable cost. Reliably deliver untreated water to our wholesale industrial customer(s) at a reasonable cost. Protect the long-term water supply and water quality interests of the District in the Mad River watershed.

Members of the public may join the meeting online at:
<https://us02web.zoom.us/j/86710296323?pwd=MjZldGxRa08wZ0FWOHJrUjNhZnFLQT09>
Or participate by phone: 1-669-900-9128 Enter meeting ID: 867 1029 6323 Enter password: 484138
 If you are participating via phone and would like to comment, please press *9 to raise your hand.

How to Submit Public Comment: Members of the public may provide public comments via email until 5 p.m. the day before the Board Meeting by sending comments to office@hbmwd.com. Email comments must identify the agenda item in the email's subject line. Written comments may also be mailed to 828 7th Street, Eureka, CA 95501. Written comments should identify the agenda item number. Comments may also be made in person at the meeting.

Announcement recording of meeting: This meeting may be recorded to assist in the preparation of minutes. Recordings will only be kept 30 days following the meeting, as mandated by the California Brown Act.

Time Set Items:

8.2 Continuing Business	McNamara & Peepe	9:15 AM
9.b New Business	Recognizing and Honoring Dee Dee Simpson-Glenn	9:30 AM
10.2c Financial	Compensation & Benefit Study with RGS	10:00 AM
9.e New Business	CLOSED SESSION: Conference with District Legal Counsel Ryan Plotz Critical Infrastructure: Threat to Public Services or Facilities pursuant to Gov. Code 54957	2:15 PM
10.1 Engineering	Engineering	11:00 AM
The Board will take a scheduled lunch break from 12:00 pm to 1:30 pm.		

1. ROLL CALL
2. FLAG SALUTE
3. ACCEPT AGENDA
4. PUBLIC COMMENT

Members of the public are invited to address the Board on items not listed on the agenda that are within the scope and jurisdiction of the District. At the discretion of the President, comments may be limited to three minutes per person. The public will be allowed to address items on the agenda when the Board takes up that item. Under the Brown Act, the Board may not take action on any item that does not appear on the agenda.

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



Agenda for Regular Meeting of the Board of Directors

January 11, 2024

Meeting Start Time: 9:00 AM

5. MINUTES

December 14, 2023, Regular Board Meeting Minutes*- discuss and possibly approve

6. CONSENT AGENDA *-These matters are routine in nature and are usually approved by a combined single vote unless an item is pulled for discussion

Media articles of local/water interest (Articles a-r)*- discuss and possibly approve

7. CORRESPONDENCE

- a. Essex Battery Bank SGIP approval*-discuss
- b. Online public comments by Jackson Hand*-discuss

8. CONTINUING BUSINESS

8.1 Water Resource Planning– Status report on water use options under consideration*-discuss

- a. Local Sales
 - i. Nordic Aquafarms-discuss
 - ii. Trinidad Rancheria Mainline Extension-discuss
 - iii. Blue Lake Rancheria Mainline Extension-discuss
 - iv. Offshore Wind Heavy Lift Multipurpose Marine Terminal Project-discuss
- b. Transport-discuss
- c. Instream Flow-discuss
- d. Reschedule January 24 Special Board Meeting-discuss

8.2 McNamara & Peepe (Time Set 9:15 am)

- a. DTSC Monthly Summary Report, December*- discuss
- b. Site maps & historical sampling results (stormwater and well water)*-reference

9. NEW BUSINESS

- a. Resolution 2024-01 Recognizing and Honoring Dee Dee Simpson-Glenn*-discuss and possibly approve **(Time set 9:30 AM)**
- b. Officer and Committee Assignments*-discuss and possibly approve
 - i. Election of officers (excluding president)
 - ii. Appointment to committees
- c. **CLOSED SESSION-** Public Employee Performance Evaluation for General Manager pursuant to Section 54957(b)(1)-**This will be the last item on the agenda**
- d. **CLOSED SESSION–** Conference with District Legal Counsel Ryan Plotz – Critical Infrastructure: Threat to Public Services or Facilities pursuant to Gov. Code 54957 **(Time set 2:15 PM)**
- e. Minutes Action/summary*-discuss and possibly approve

10. REPORTS (from STAFF)

10.1 Engineering – (Time set 11:00 am)

- a. Samoa Peninsula Waterline Right-of-Way Maintenance Project EIR-status report
- b. Collector 2 Rehabilitation Project-status report
- c. Essex Onsite Sodium Hypochlorite Generation Project-status report
- d. TRF Generator Project*-status report

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



Agenda for Regular Meeting of the Board of Directors

January 11, 2024

Meeting Start Time: 9:00 AM

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- e. Collector Mainline Redundancy Project-status report
 - f. Reservoirs Seismic Retrofit Project-status report
 - g. Matthews Dam Advance Assistance Seismic Stability Project*- status report
 - h. Status report re: Other engineering work in progress

10.2 Financial

- a. December 2023 Financial Statement & Vendor Detail Report*-discuss and possibly approve
- b. December 2023 Fieldbrook-Glendale contract revenue and Expense Summary*-discuss
- c. Compensation & Benefit study with RGS, Patty Howard-discuss **(Time set 10:00 AM)**
- d. Employee handbook chapter 3 revision, part II*-discuss
- e. Review of ReMAT Contract Revenue (FY19-FY23)*-discuss
- f. Director Compensation*discuss

10.3 Operations

December Operations Report*-discuss

10.4 Management

- a. Use of Baduwa't name for the Mad River-discuss
- b. Change May 9 and August 8 Board Meeting Dates due to conflicts-discuss and possibly approve

11. DIRECTOR REPORTS & DISCUSSION

11.1 General – comments or reports from Directors

11.2 ACWA

Director Report, if any

- a. ACWA 2024 Sacramento CA Spring Conference May 7-9*-discuss and possibly approve attendance
- b. ACWA 2024-25 Committees Region 1*-Discuss
- c. ACWA 2024 D.C. Water conference February 27-29*-discuss and possibly approve attendance

11.3 ACWA – JPIA

Director Report, if any

11.4 Organizations on which HBMWD Serves

- a. RCEA*– report out
- b. RREDC*– report out

ADJOURNMENT

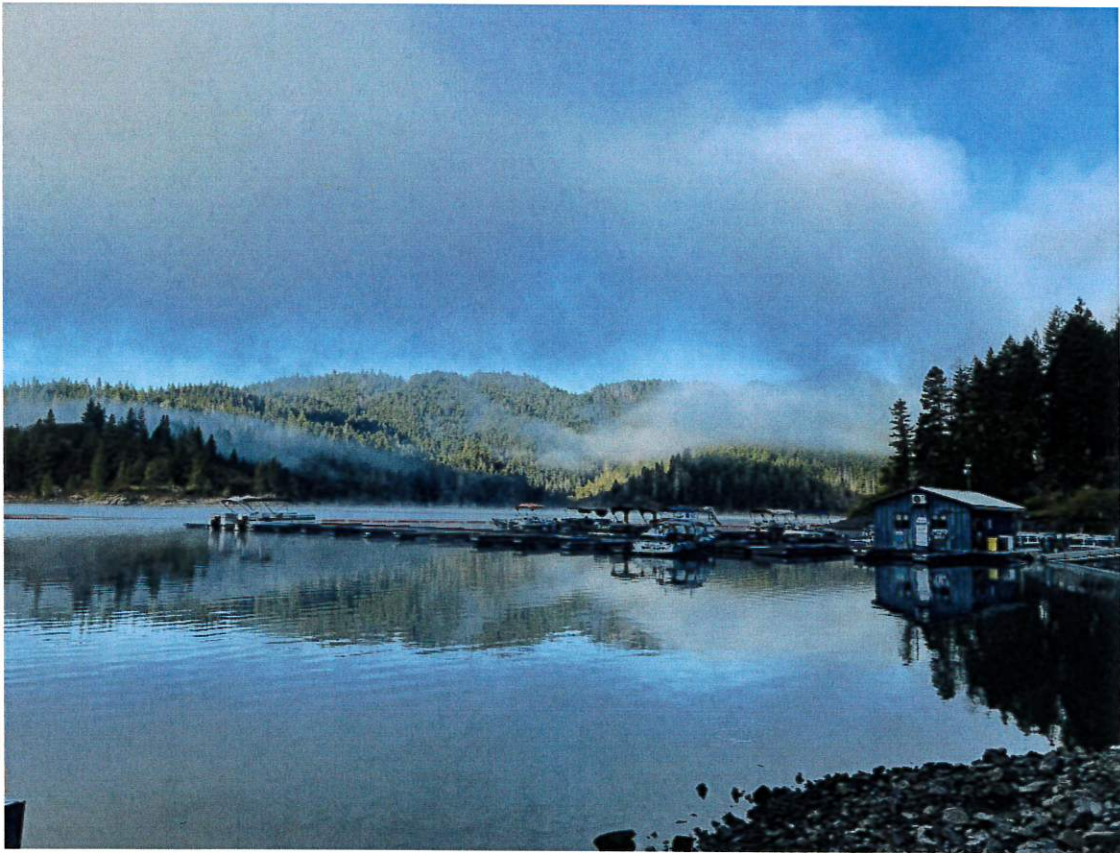
ADA compliance statement: In compliance with the Americans with Disability Act, if you need special assistance to participate in this meeting, please contact the District office at (707) 443-5018. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting. (Posted and mailed January 5, 2023.)



HUMBOLDT BAY MUNICIPAL WATER DISTRICT

Board of Directors Meeting

January 11, 2024



Ruth Lake Marina
Photo by Larry Raschein

MINUTES

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



**Minutes for Regular Meeting of the Board of Directors
December 14, 2023**

1. ROLL CALL

President Latt called the meeting to order at 9:01 am. Director Rupp conducted the roll call. Directors Fuller, Latt, Lindberg, Rupp, and Woo were present. General Manager John Friedenbach, Superintendent Dale Davidsen, Business Manager Chris Harris, and Board Secretary Contessa Dickson were present. District Engineer Nate Stevens was present for a portion of the meeting.

2. FLAG SALUTE

President Latt led the flag salute.

3. ACCEPT AGENDA

On motion by Director Rupp, seconded by Director Lindberg, the Board voted 5-0 to accept the agenda.

4. PUBLIC COMMENT

No public comment was received.

5. MINUTES

November 7th, 2023, Regular Board Meeting Minutes

On motion by Director Lindberg, seconded by Director Rupp, the Board voted 5-0 to approve the November 7th, 2023 minutes.

6. CONSENT AGENDA

On motion by Director Rupp and seconded by Director Woo, the Board voted 5-0 to approve the Consent Agenda.

7. CORRESPONDENCE

- a. HBMWD letters to Wiyot Tribe, Bear River Band of Rohnerville Rancheria, and Blue Lake Rancheria RE: Samoa Peninsula Waterline Right-of-Way Maintenance Project:
HBMWD sent these letters under AB52 which is required communication with local Tribes when a construction project may affect Tribal lands. A response was received from the Wiyot tribe and a consultation meeting is scheduled with them next week.
- b. Letter from CalOES to HBMWD re Notice of Desk Compliance Assessment:
Mr. Friedenbach shared a letter received from CalOES. This compliance assessment is for the TRF Redundant Pipeline project, which required a change of scope of work and extension. The District was asked to submit 3 pages of compliance items that were promptly submitted by Ms. Harris. In CalOES's response, they did not identify any instances of non-compliance. Mr. Friedenbach commented that because of Ms. Harris's complete and immediate response with the information, they quickly made this determination within 3 weeks of this notice.
- c. HBMWD letter to National Marine Fisheries Services (NMFS):
The District sent this as a response to a letter received in September from NMFS that provided comments on the District's Instream Flow dedication that were not based on factual information. The District responded to clarify information regarding our instream flow dedication. Director Fuller stated an email response was received in the last 2 days from NMFS however, there was not enough time to add it to the Board packet. NMFS is requesting a meeting. Director Rupp stated a good job on the contents of the response letter.

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



**Minutes for Regular Meeting of the Board of Directors
December 14, 2023**

d. HBMWD letters RE: Request for Exclusion from Settlement agreement:
Mr. Friedenbach sent this letter requesting to be excluded from the Settlement Agreement between Public Water Systems and the E.I. DuPont De Nemours and 3M Company, regarding PFAS contamination. This topic came up at the ACWA conference that Mr. Friedenbach and Director Rupp attended. It was discussed that participation in the settlement forfeits any right to sue in the future. The District has done testing for PFAS, with none detected, but wants to preserve the future right to sue should PFAS be detected in our water source.

8. CONTINUING BUSINESS

8.1 Water Resource Planning:

a. Local Sales:

i. Nordic Aquafarms:

The Coastal Commission approved a coastal development permit, with special conditions, for wastewater discharge for the Nordic Aquafarms proposed project.

ii. Trinidad Rancheria Mainline Extension:

No update was reported.

iii. Blue Lake Rancheria Mainline Extension

Counsel is preparing the Mainline Extension Agreement.

iv. Offshore Wind Heavy Lift Multipurpose Marine Terminal Project

The previous Harbor District Executive Director has retired. There is a staff-level meeting with the new District Executive Director and senior staff set for next week to discuss the project.

b. Transport

No update was reported.

c. Instream Flow

The District is still awaiting the draft review response from the Water Board staff on the HBMWD's draft 1707 Petition for Change application. The next step will be to evaluate the comments by the Water Board Staff for incorporation into the petition for change submittal to the Water Board. Mr. Friedenbach made a public outreach presentation on December 5, 2023, to the Old Town Rotary about the Petition for Change. A special Board Meeting Study session has been scheduled for Jan 24, 2024, at the Eureka Wharfinger Building from 5:30-7:30 PM. Mr. Friedenbach and the Board discussed the room setup, agenda, and goals for this meeting. Director Woo said Mary Gelinas is available to be the meeting facilitator. A discussion among the Directors followed highlighting the importance of hearing from and educating the public on this topic. They also discussed the best methods for community outreach, including a press release to announce the meeting.

8.2 McNamara & Peepe

a. DTSC Monthly Summary Report, November:

Director Woo recused herself due to a conflict of interest and left the Board room. Mr. Friedenbach summarized the monthly email report provided by DTSC. DTSC renewed its

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors
December 14, 2023

contract with SHN for the environmental investigative work at the site. There were a couple of monitoring reports conducted in 2023, DTSC is still reviewing those reports. The District is hoping to get results of the first semiannual groundwater sampling results sometime this month. The 2023 site investigations report and findings are expected to be posted in January 2024. There was no date given on when the second annual 2023 groundwater sampling report will be posted. There is much interest to see what those reports say and to see how any contamination may be migrating. No date or agenda for the Quartey meeting has been received yet.

9. NEW BUSINESS

a. New employee presentation:

Ethan Schillinger, new Operations and Maintenance Technician was presented with a District jacket, as is the custom in celebrating new employment with Humboldt Bay Municipal Water District.

b. Compensation & Benefit Study RFP/RFQ:

On April 28, 2023, the District released an RFP/RFQ for a Compensation and Benefit Study to assist the District in understanding how the District compensation and benefits package compares to similar agencies. Based on limited response to the RFP the Directors voted to reject all bids and requested staff reissue the RFP at a later date. Staff reissued the RFP on October 23, 2023. The District received three responses. Staff has reviewed the three RFP responses. While all the submittals exceed budgeted funds of \$25,000, staff found them all to be complete and responsive. If the Board chooses a RFQ that exceeds the budget, the difference can be temporally funded through General Reserves. Once the Project Budget Reallocation is completed, the reserves may be replenished. Ms. Harris defined the 3 responses from the three bids. Staff recommends accepting RGS's bid. Clarifying questions were asked by the Board. On motion by Director Lindberg, seconded by Director Rupp, the Board voted 5-0 to accept RGS as the firm to conduct the Compensation and Benefit Study.

c. Director compensation:

Staff provided requested information regarding Director compensation. Director compensation is a part of the District Board Policy Handbook, which was last revised in 2020 and is regulated by multiple sections of the California Water Code. California Water Code regulates the amount of compensation a Board member can receive. This amount is set at an initial maximum of \$100, with a 5% increase allowable each calendar year. Director compensation was last reviewed and adjusted in 2001. Director Rupp asked for total compensation including benefits to be presented. For an increase in director compensation, the next step would be to have a draft ordinance brought to the Board. An in-depth discussion ensued. President Latt thanked Ms. Harris for her thorough work.

d. TRF Generator project:

After consultation with the District Engineer, it was determined that the project qualifies for a Categorical Exemption: Small Structure 15303. On motion by Director Fuller, seconded by Director Lindberg, the Board voted 5-0 to find that the project qualifies for the Categorical Exemption and directed staff to file the necessary CEQA paperwork for the TRF Power Resiliency Generator Project.

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors
December 14, 2023

10. REPORTS (from STAFF)

10.1 Engineering – (Time set 11:00 am)

a. Samoa Peninsula Waterline Right-of-Way Maintenance Project EIR:

i. Notice of Preparation comment letters:

Ms. McNamee of GHD reported out on the Notice of Preparation (NOP) Comment letters. The NOP was published on October 20, 2023, per SEQA section 15082. On November 9, 2023, a public scoping meeting was held during the HBMWD regular Board meeting. On November 14, 2023, the NOP was sent via mail to additional recipients including environmental advocacy groups to garner additional public comment, which was extended through December 4, 2023. At the November 9 Regular Board meeting the District received one oral comment from the Coastal Commission and received 5 written comments from the Native American Heritage Commission (NAHC), the California Department of Fish and Wildlife (CDFW), Friends of the Dunes (FOD), The Bureau of Land Management (BLM), and a joint letter from Humboldt Waterkeeper, Environmental Protection Information Center (EPIC), and Northcoast Environmental Center (NEC). Mr. Friedenbach and Ms. McNamee have begun addressing comments with FOD, Humboldt Waterkeeper, and CDFW. All comments will be addressed and considered in the Environmental Impact Report (EIR).

ii. AB52 inquiry from Wiyot tribe:

Per AB 52 tribal consultation, a tribe must request, in writing, to be notified by lead agencies through formal notification of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated. The District received one request for formal consultation from the Wiyot Tribe. A meeting to discuss the project is scheduled between GHD, the District, and the Wiyot Tribe for Monday, December 18, 2023, at 1:00 pm. The Board asked some clarifying questions. The NAHC comment letter included recommendations for cultural resource assessment. The cultural resource sub-consultant on this project, Jamie Roscoe and Associates, has been conducting archeological investigations locally for many years and is well-versed in required best practices.

iii. Debrief meetings with NGOs and CDFW:

CDFW recommends including a full impact analysis of the Endangered Species Act listed species in the EIR, which is planned, as well as recommends completing biological surveys throughout the entirety of the project footprint before the circulation of the EIR, which is also planned. FOD recognizes and appreciates the longstanding positive, collaborative relationship with the District, and seeks to continue a dialogue through this CEQA planning process that allows the District to meet its maintenance needs while prioritizing conservation. FOD acknowledges that the project is proposed on and across land that FOD owns or manages for habitat conservation, native dune ecosystem restoration, and public access. They

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors

December 14, 2023

are concerned that the project could pursue an extreme and environmentally damaging alternative of wholesale and repeated removal of vegetation from the entirety of the right-of-way without exploring reasonable and viable alternatives seeking to avoid impacts.

The BLM is looking forward to this project as an opportunity to continue collaborating and building upon its decades-long and constructive partnership with the District. They had many requests and concerns including requesting all identified lands affected by this project. They want to see project alternatives in the EIR that address minimizing impact to federally listed vegetation species where impacts are unavoidable. Requesting the District include the BLM in consultation efforts with the US Fish and Wildlife Service regarding federally listed plants. BLM provides some proposed approaches to establishing funds or cost recovery and requests additional conversations with key staff.

The joint letter from Humboldt Waterkeeper, Northern Environment Center, and Epic stated they are concerned this EIR could peruse an extreme and repeated removal of vegetation from the entirety of the right-of-way without exploring reasonable and viable alternatives that seek to avoid impacts, rather than mitigate for them. They state that all areas proposed for ground disturbance should be carefully scrutinized for known or potential contamination.

Mr. Friedenbach stated there were many positive comments from various agencies and entities. There are suggestions for variations on mitigation that can be incorporated into the process and analyzed to come up with some creative solutions. Staff and consultants have had some initial meetings with some of these commenters which were very productive and collaborative. The Board thanked Kerry for all of her work.

Public comments:

Mike Cipra, Executive Director for FOD commented: Mike thanked Mr. Friedenbach and Ms. McNamee for meeting with him. His comment was focused on exploring alternatives for this project. FOD looks forward to working with the District in the future. Additionally, there has always been a spirit of cooperation from the District with FOD. Mike also added Jen Kalt offered a tour of the wetlands. FOD currently owns those wetlands and asked if any Directors interested. President Latt and Director Rupp were interested.

Katie Rian with the Department of Fish and Wildlife: Katie was the author of the comment letter presented above. She is interested in the District looking into alternatives and working with the District as they consider different mitigation options.

Jen Kalt VIA Zoom from Humboldt Waterkeeper: apologized for missing the scoping meeting last month and thanked Mr. Friedenbach for setting up a meeting with

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



**Minutes for Regular Meeting of the Board of Directors
December 14, 2023**

him, Jen, and Kerry. Encouraged the Board if they have not been out to the dunes to visit the area. A lot of the pipelines go through wetlands, a lot of culturally sensitive habitat. It is very premature to talk about options before speaking with the Wiyot Tribe. She appreciates how flexible the staff has been talking about different ideas as well as the open dialogue and amount of attention the Board pays to this issue.

Caroline Griffith Directed of the Northcoast Environmental Center commented via Zoom: She was present today due to missing the scoping meeting. She appreciated the discussions being had. She agreed with Jen Kalt's suggestions. Also appreciates Mr. Friedenbach sitting down with her colleagues to discuss their concerns.

b. Collector 2 Rehabilitation Project:

i. Layne Pay Request #8:

Pay request from Layne in the amount of \$17,3897.50. This covers the remainder of the contract work that has not been previously paid, with the exception of Change Order 3. The District is waiting to receive Layne's final report which will include as-built drawings and their analysis on the pre- and post-well production testing that was performed.

ii. Change Order #3:

Layne provided rates that will be re-evaluated at the end of the project. Including a credit for a stainless-steel valve the District already had in possession. This included a credit for that valve. With a final cost of \$1,933.22. On motion by Director Lindberg, seconded by Director Rupp, the Board voted 5-0 to approve Change Order #3 in the amount of \$1,933.22.

iii. Notice of Completion:

This serves as a public notice stating construction is complete. The District will hold retainage for 35 days. After 35 days the retainage is released after receiving the final report.

c. Essex Onsite Sodium Hypochlorite Generation (OSG) Project:

i. PSI change order proposal:

Change order request from PSI who is the manufacturer of the OSG equipment, including the installation of 3 chlorine dosing pumps that will pump manufactured chlorine into the District's system. Those pumps will meter the amount of chlorine dosing based on the flow at the time. The Board asked a few clarifying questions. On motion by Director Rupp, seconded by Director Woo, the Board voted 5-0 to approve PSI Change Order # in the amount of \$62,825.00.

d. TRF Generator Project:

PACE has submitted their 60% design plans.

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors

December 14, 2023

e. Collector Mainline Redundancy Project:

1. Grant extension approval:

The District received notification from CalOES that they updated their grant sub-award information sheet extending Phase 1 completion date from December 4, 2023 to December 4, 2024.

2. Updated and revised match letter:

Last month a revised match letter was presented for this project based on the increased cost for the change of scope of work that GEI proposed for the project to do additional Geotech. There was a \$27,070.00 budget match increase. This is an update to last month's letter. On motion by Director Rupp, seconded by Director Lindberg the Board voted 5-0 to send the revised match letter.

ii. Reservoirs Seismic Retrofit Project:

The project is underway and under contract, pushing forward on the final design.

iii. Status report re: other engineering work in progress:

Nothing to report.

b. Financial

i. November 2023 Financial Statement & Vendor Detail Report:

Ms. Harris presented the November 2023 Financial report. The General Account balance is \$1.7 million. The various investments balance is \$10.2 million. Ms. Fuller reviewed the monthly bills with no questions. The Hydro plant is back online as of Tuesday, December 12, 2023, and is once again able to produce revenue. The County has made progress with getting current property tax data. The District can report a balance in the 1% property tax account. The Board asked a few questions. On motion by Director Rupp, seconded by Director Fuller the Board voted 5-0 to approve the November financial report and vendor detail in the amount of \$322,512.70.

ii. November 2023 Fieldbrook-Glendale contract revenue and Expense Summary:

This section of the report has been broken out for transparency. It used to be included in the main financial report, but this means of presentation is much easier to review at a glance.

iii. Ruth Area Fire Fuel Reduction Part III contract:

On November 20, 2023, the District released an RFP/RFQ for part III of the Fire Fuel & Defensible Space Project. Part I and Part II were completed last year and the beginning of this year. Focusing on unburnt property owned by the District. Part III of this project focuses on burnt property owned by the District. This project is funded by a contract between HBMWD and CalFire. District staff received feedback from multiple firms that were either not feasible or extremely costly. District staff received several formal inquiries related to the situation which prompted a response by District staff to any firms wishing to offer an alternative treatment. The Board asked some clarifying questions regarding the location,

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors
December 14, 2023

weather, and length of the contract. Staff recommends approving entering into a contract with Simmons Timber Falling. On motion by Director Fuller, seconded by Director Lindberg the Board voted 5-0 to enter into contract with Simmons Timber Falling.

c. Operations

i. November Operations Report:

Ruth Lake Headquarters recorded 4.08 inches of rainfall for November. HBMWD was notified by PG&E on Monday, December 11, at 10:30 PM that the plant could be put back online. That same Monday the plant went back online. Safety meeting topics for November included trench and excavation safety, ladder safety, Fire Prevention, and SCBAs. Mr. Palmero, Operations supervisor, attended a Cross Connection Control training in San Jose.

d. Management

i. Resolution 2023-11 Recognizing and Honoring Steve Marshall:

After 34 years of exceptional tenure with the District, Steve Marshall is retiring on December 30, 2023. Director Rupp read Resolution 2023-11 Recognizing and Honoring Steve Marshall. On a motion by Director Rupp, seconded by Director Woo, the Board voted 5-0 to accept Resolution 2023-11.

ii. US Fire Service Silviculture Symposium:

Mr. Friedenbach reported out on the US Fire Service Silviculture Symposium he attended.

iii. ACWA and ACWA JPIA Fall Conferences:

Mr. Friedenbach reported out on his attendance of the ACWA/JPIA fall conference. There were a lot of good takeaways including a Cyber Security speaker which Mr. Friedenbach shared highlights with the Board.

iv. R.W. Matthews Dam historical records at DSOD:

While attending the USFS Silviculture Symposium Mr. Friedenbach visited the DSOD headquarters. Looking through records, searching for original Matthews Dam construction plans relating to the plunge pool and spillway face reinforcement. The hard copies of design plans were not in the records. In the future, the District may reach out to the original designer Bechtel for those construction design plans. There were many useful photographs and inspection records obtained.

v. Taxpayer Protection and Government Accountability Act:

Mr. Friedenbach advised that the State submitted this act to the State Supreme Court that since this initiative may be unconstitutional because it takes away the power of their legislative authority in certain areas. There is interest to see if this makes it onto the next ballot. The Board made a few comments.

f. DIRECTOR REPORTS & DISCUSSION

a. General – comments or reports from Directors

Director Rupp suggested looking at the District's planning horizons, and long-range planning as we head into the next calendar year. Where the District is in its 5-year capital projects plan? Mr. Friedenbach responded there is an update to the CIP that is in process.

Humboldt Bay Municipal Water
District 828 7th Street, Eureka



Minutes for Regular Meeting of the Board of Directors
December 14, 2023

b. ACWA

i. Greetings, and farewell, from your nation's capital:

Dave Reynolds, a long-standing Federal Representative of ACWA has retired. They are in the process of hiring a replacement.

ii. ACWA Fall Conference:

Director Rupp attended the ACWA-JPIA Fall Conference. He shared the different presentations he attended throughout the conference. In addition, he attended a finance committee meeting and a membership committee meeting.

c. ACWA – JPIA

i. President's Special Recognition Award to HBMWD:

This award was sent to HBMWD for achieving a low ratio of "Paid Claims and Case Reserves" to "Deposit Premiums" in the Liability Program for the period from October 1, 2019 through September 9, 2022.

ii. JPIA Fall Conference:

Director Rupp attended the ACWA-JPIA executive and Board meeting held at the ACWA-JPIA fall conference, it was well attended.

d. Organizations on which HBMWD Serves

i. RCEA:

Director Woo reported out on the November 16, 2023 meeting.

ii. RREDC:

President Latt attended the November 27, 2023 meeting. Elizabeth Connor was the speaker who spoke on the benefits and challenges of Regional housing trust funds. President Latt asked if Director Lindberg was interested in being the regional representative for future RREDC meetings, Director Lindberg said he might be.

ADJOURNMENT

The meeting adjourned at 2:58 pm.

Attest:

Neal Latt, President

J. Bruce Rupp, Secretary/Treasurer

CONSENT

DOWNEY BRAND

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December 18, 2023

VIA ELECTRONIC MAIL ONLY

John Friedenbach
General Manager
Humboldt Bay Municipal Water District
828 Seventh Street
Eureka, CA 95502-0095
Email: friedenbach@hbmwd.com

Re: Hourly Rates Effective January 1, 2024

Dear John:

Thank you for placing your trust in Downey Brand. As a firm, we are committed to consistently delivering high quality, efficient and cost-effective legal counsel. We look forward to working closely with Humboldt Bay Municipal Water District in the coming year and I am writing to provide you with Downey Brand's new hourly rates effective January 1, 2024.

Meredith E. Nikkel	\$500
Kathryn Oehlschlager	\$510
Hina Gupta	\$440
Taylor Strain	\$340

We have given careful thought to these hourly rate adjustments. These changes will ensure we meet our client service commitment to attract and retain the talented attorneys, paralegals and support staff so critical to consistently delivering the valuable legal counsel you expect and deserve.

If you have any questions or concerns about the above rates, please do not hesitate to contact me.

Sincerely,

DOWNEY BRAND LLP



Meredith E. Nikkel

MEN:lab

cc: Kathryn L. Oehlschlager

LOCO STAFF / TODAY @ 10:01 A.M. / ENERGY, OFFSHORE WIND

Environmental Review Period Begins for California Offshore Wind Lease Areas

Press release from the Bureau of Ocean Energy Management:

Supporting the Biden-Harris administration's goal of deploying 30 gigawatts (GW) of offshore wind energy capacity by 2030 and 15 GW of floating offshore wind energy capacity by 2035, the Bureau of Ocean Energy Management (BOEM) today announced it will conduct a regional environmental review of potential development activities on the five offshore wind lease areas off California's central and north coasts. A Notice of Intent (NOI) to prepare a Programmatic Environmental Impact Statement (PEIS) will publish in the Federal Register on Dec. 20, 2023, initiating a 60-day comment period. The input gathered during the comment period will inform the scope and alternatives of the PEIS.

"The Biden-Harris Administration is committed to responsibly harnessing the clean energy and economic potential of offshore wind in California," said **Doug Boren, BOEM Pacific Regional Director**. "This regional environmental analysis will help ensure that timely decisions can be made to advance offshore wind while protecting the ocean environment, marine life, and other ocean uses. This approach also ensures both a comprehensive review of the California areas and improved efficiencies for future offshore wind project reviews."

The PEIS will describe the potential impacts of federal offshore wind energy development activities off the coast of California, as well as the change in those impacts that could result from adopting programmatic mitigation measures. BOEM will conduct subsequent site-specific NEPA analyses and consultations for individual proposed wind energy projects as construction and operations plans for those projects are received.

Additional information on the California Offshore Wind Energy PEIS and scoping webinars is available on the BOEM website at <https://www.boem.gov/caoffshorewindpeis>.

The five offshore wind energy lease areas off the coast of California were awarded through BOEM's December 2022 auction that brought in over \$757 million and will result in over \$117 million for workforce training programs and U.S. domestic supply chain investments for the floating offshore wind energy industry.

LOST COAST OUTPOST

RYAN BURNS / YESTERDAY @ 4:58 P.M. / BUSINESS, GOVERNMENT

Nordic Aquafarms Celebrates Coastal Commission Denial of Five Appeals to Samoa Fish Farm

Architectural mock-up of the land-based fish farm Nordic Aquafarms plans for the Samoa Peninsula.

Last week the California Coastal Commission unanimously denied five separate appeals challenging permit approvals for Nordic Aquafarms' big onshore recirculating aquaculture system (RAS) planned for the Samoa Peninsula.

Appellants, including the Redwood Region Audubon Society, Salmonid Restoration Federation, 350 Humboldt, and local residents Alison Willy and Scott Frazer, argued that the permitting agencies didn't adequately account for a variety of potential environmental impacts to the climate, marine resources, dune habitat and public access.

But Coastal Commission staff pointed to the fact that the onshore fish farm, now slated to produce thousands of metric tons of yellowtail per year for distribution up and down the West Coast, will be constructed on a designated brownfield. The property formerly housed the Samoa Pulp Mill, which left behind millions of gallons of toxic pulping liquors.

At last week's meeting, Melissa Kraemer, coastal program manager for the Coastal Commission's North Coast District, said, "While the approved development is a relatively large project, its footprint and scope are limited to brownfield lands and redevelopment of areas that historically were developed with industrial uses. Given the high degree of factual and legal support for the county's decision, and its required conditions of approval, staff believes that the consideration of the five factors together support a conclusion that no substantial issue is raised."

The commission agreed, much to the delight of Nordic Aquafarms, which today issued the following press release:

Last week, the California Coastal Commission voted unanimously in alignment with the staff recommendation finding "no substantial issue" raised in the five appeals, upholding the County approval for Nordic Aquafarms' terrestrial Coastal Development Permit (CDP). This step of checks and balances acknowledged the concerns raised in the appeals and indicated that the scope of those concerns fell outside the realm of the coastal development permit.

The California Coastal Commission, known for its rigorous evaluation process, thoroughly examined Nordic Aquafarms' proposal and the issues raised in the appeals over the last year, and found it in alignment with the Local Coastal Plan, the Coastal Act, and environmentally sustainable goals. The "no substantial issue" recommendation not only recognizes the scope of the appeals as they relate to CDP, but also reflects the project's adherence to stringent environmental regulations.

Nordic Aquafarms' innovative approach to sustainable seafood production embraces cutting-edge technology and leading environmental practices. Overall, the approved terrestrial Coastal Development Permit is a significant stride towards creating a model for sustainable aquaculture that meets the growing demand for seafood without compromising the delicate coastal environment.

"We are glad for the California Coastal Commission's unanimous decision, and the support of the community for Nordic Aquafarms," said Brenda Chandler, US CEO of Nordic Aquafarms. "This approval not only underscores our commitment to environmental stewardship, but also highlights California's role as a leader in addressing challenges related to sustainable food production."

The CDP approval helps to solidify Nordic Aquafarms as a key player in the emerging landscape of onshore sustainable aquaculture. By embracing forward-thinking initiatives, and environmentally friendly practices, Nordic Aquafarms is contributing to the broader solution for responsible seafood production, aligning with California's dedication to the highest environmental standards and finding solutions to global issues.

- **THE HILL ON NEWSNATION**
- **California to vote on allowing 'toilet-to-tap' projects: What to know**
- **BY SHARON UDASIN - 12/16/23 5:00 PM ET**

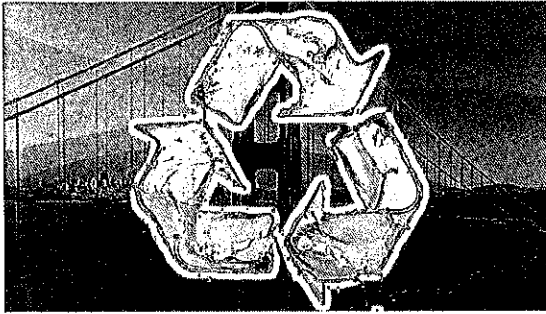


Illustration / Courtney Jones; Adobe Stock

A recycle logo in water overlaid on the Golden Gate Bridge. Some Californians could find themselves flushing down a future drinking water source in just a few years' time, assuming a Golden State regulator approves a long-awaited slate of so-called "toilet-to-tap" rules next week.

Some Californians could find themselves flushing a future drinking water source down their commodes in just a few years' time — pending the approval of long-awaited, but misnamed, "toilet-to-tap" rules next week.

The California State Water Resources Control Board will consider a landmark proposal Tuesday to streamline "direct potable reuse" (DPR) — a process by which purified wastewater is discharged right into a public water system or just upstream from a treatment plant.

"It's a real important step for just adding to the portfolio that we can use here in the West," Darrin Polhemus, deputy director of the board's division of drinking water, told The Hill.

Such capabilities, he explained, could strengthen California's water resilience, while providing numerous environmental benefits and reducing the need for long-distance water transport.

"We're not using it one time and dumping it in the ocean," Polhemus said.

While these regulations would constitute a giant leap forward in statewide water recycling, California utilities are by no means new to repurposing sewage.

They have for years engaged in "indirect potable reuse," the injection of treated wastewater into environmental buffers — such as groundwater aquifers, lakes or rivers — before its ultimate release into a municipal system.

Orange County, which has treated sewage in some capacity since the 1970s, now boasts the world's biggest water purification system for indirect potable reuse. Today, the county claims to be reclaiming 100 percent of its wastewater. Unlike indirect potable reuse, however, DPR occurs without the use of an underground aquifer or any environmental storage barrier.

Even if the board does approve the rules Tuesday, DPR systems won't be popping up overnight — and when they do, the wastewater won't really be flowing right from a toilet to a tap.

The regulations first would have to be accepted by the state's Office of Administrative Law — which Polhemus said would likely occur by summer or fall of next year. Only after that could utilities begin to build these large and complex projects, most of which would take about six or seven years to complete, he said.

"So no one will be drinking direct potable reuse in the immediate future," Polhemus added.

Tapping into an existing system, over and over again

While California is often a national trailblazer when it comes to environmental regulation and legislation, the Golden State would not be the first to adopt rules regarding DPR.

Colorado adopted DPR regulations after updating its drinking water standards in January, though no utilities are making use of these rules thus far. Texas published regulatory guidance for DPR on a case-by-case basis, while Florida and Arizona are now working on related rules.

The California regulations, however, are expected not only to be the most rigorous, but would be serving several commercial-scale projects that are already in planning phases.

The proposed regulations stem from the 2017 A.B. 574 bill, which tasked the water resources board with adopting "uniform water recycling criteria for direct potable reuse" on or before Dec. 31, 2023.

Within the regulations are mandates that all source water for DPR projects come from municipal sewage and a ban on building bypasses to circumvent mandatory treatment processes.

The 69-page proposal also provides guidelines for controlling and monitoring chemicals and pathogens, as well as extensive instructions for plant operations, maintenance and compliance.

Among the expected benefits of the proposed regulations are the provision of a safe, reliable and drought-proof drinking water supply, as well as a streamlined permitting procedure for DPR facilities, according to a statement of reasons issued by the board in July.

As far as the economics are concerned, Polhemus noted that DPR would enable utilities to reduce some of the expensive and disruptive pipeline and infrastructure construction that comes with other types of water recycling efforts. "DPR does provide this opportunity to tap into the potable water distribution system that exists already," he said. Polhemus acknowledged that DPR is expensive but stressed it is far cheaper than desalination. Even when cities develop new natural water sources — which are largely unavailable in California — they confront "phenomenally high" costs for dams and aqueducts, he added.

Getting the public on board

Despite the many potential benefits associated with directly recycling wastewater, California regulators have faced an uphill battle in making this practice a reality.

For example, San Diego launched a campaign to implement DPR in the 1990s, but the plans stalled when a "toilet to tap" misnomer caught on and began to sway public opinion, KPBS reported.

Public opinion on DPR has evolved since the days of the San Diego debacle — both as the science has become clearer and California's water needs have become more dire.

Jennifer West, managing director at the NGO WaterReuse California, said she believes DPR has become more palatable to Californians as they have begun to understand the value of water amid multiple decades of drought.

"Using water one time and discharging it — we can do better than that," she told The Hill.

West said she has seen a shift in "the collective consciousness" of Californians, noting that residents now complain when their cities aren't reclaiming enough wastewater.

Polhemus likewise attributed the increasing public acceptance to the fact that water recycling — at least in indirect form — has now been occurring for a long time.

"For decades, we've learned from all of the activities we've done for recycling — from irrigation to indirect potable reuse," he added, describing DPR as "the final step."

If the regulations are approved, they would also require engagement with members of the public prior to the establishment of any DPR facility, according to Polhemus.

"We want the public to be brought along, to be explained what's going on and be part of that decision-making process," he said.

Emphasizing that "we're not imposing this on anybody," Polhemus reiterated that the board is simply providing utilities with a framework if they so choose to build a facility.

One long-standing issue that he and others identified as a barrier toward getting the public on board has been a discomfort linked to the potential presence of both chemicals and infectious diseases in wastewater.

Polhemus stressed, however, that the proposed regulations included "triple redundancy" to ensure the elimination of biological contaminants.

To identify an acceptable pathogen threshold and treatment protocol, researchers relied upon both the Giardia and Cryptosporidium parasites and on norovirus, the most common cause of acute gastroenteritis, according to the July statement of reasons.

They determined that regulating bacteria levels was unnecessary, as the treatment for handling "the hardier pathogen types" could "easily deal with the bacteria threat," the document stated.

"The regulations are extremely protective of public health, and it's going to be the cleanest water around," West added.

On the chemical side, Polhemus touted an effective combination of reverse osmosis, advanced oxidation and granulated activated carbon.

That redundancy, he contended, gives regulators "the confidence that we'll be able to treat for things we don't even know are there."

'A community's always going to produce wastewater'

If the DPR regulations receive an official stamp of approval, there are several Southern California projects prepared to embark on a multi-year planning and construction journey.

Among these projects is Pure Water San Diego, a multi-phased program to provide nearly half of San Diego's water from local sources by the end of 2035.

Although the first phase of Pure Water San Diego will use a reservoir for indirect potable reuse, the city is considering incorporating DPR into the next phase, according to the plans.

The Metropolitan Water District of Southern California, meanwhile, is partnering with Los Angeles County Sanitation Districts on a two-phased initiative, Pure Water Southern California, which plans to include DPR from the get-go.

The first phase is expected to involve a mix of indirect potable use and a type of DPR called "raw water augmentation," in which treated wastewater would be blended with imported Colorado River water and state resources.

This process still qualifies as DPR because the mix would go directly into a drinking water treatment plant and on to customers, rather than first spending time in an environmental buffer.

"Our plan is to have Pure Water Southern California online and using DPR by 2032," Rebecca Kimitch, press office manager for Metropolitan Water District, told The Hill.

As far as the second phase is concerned, project officials said they have yet to decide whether the DPR technology will again involve raw water augmentation or another approach.

"DPR is a vital component of our Pure Water Southern California program as well as to California's water management strategy as a whole," Kimitch said.

"But DPR will allow us to take this stream of purified water and incorporate it into our system right away, regardless of what the conditions in nature are," she added.

Because Southern California lacks the natural resources to quench the thirst of its residents, the region has been relying on bringing in water from the Colorado River and from the northern parts of the state, Kimitch noted.

"We want to just use it as much as we can," she continued. "Using it once and then sending it to the ocean — that's not being as efficient and as sustainable as we can be."

Polhemus echoed many of these sentiments, noting that as utilities consider how to bolster its resilience amid drought, adding DPR to their portfolios simply "makes a lot of sense."

"A community's always going to produce wastewater," he said.

Fire Destroyed This California Town's Water System. But That Didn't Slow The Effort To Rebuild

Five years after the Camp Fire, the town of Paradise is still replacing damaged water lines. But it's been able to do it in a way that hasn't slowed down reconstruction.

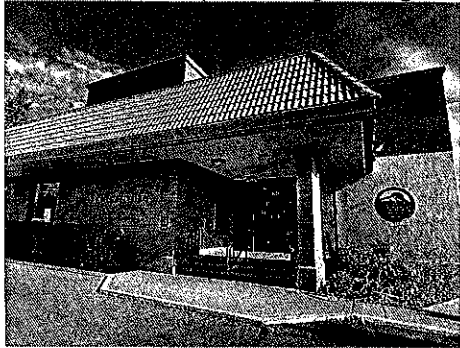
By Jessica Terrell / December 12, 2023
Reading time: 10 minutes.

Mickey Rich can still remember the look on people's faces when leaders of the Paradise Irrigation District announced that it would take at least three years to repair the town's fire-ravaged water system.

It was March of 2019, and nearly 300 people had turned out to hear the district's plan for removing the toxic stew of cancer-causing materials that had leached into pipes during the deadliest fire in modern California history.

"We saw the looks on their faces and the sighs and the anguished sound in the crowd," said Rich, the district's assistant manager. "And we went back to the table."

Five years after the fire, the water district is still ripping up damaged service lines and installing more advanced water meters aimed at preventing damage in the future. But that grim statistic hides a remarkable success story.



Paradise Irrigation District tied its water repairs to the building permit process, enabling construction to move forward at the same time water repairs did. (Jessica Terrell/Civil Beat/2023)

After the meeting, officials went back to the drawing board and came up with a new recovery plan that could take place in tandem with reconstruction efforts. Within four months of the meeting, they had begun restoring service to standing homes.

The water district also rolled out a testing and public information program so effective that recent surveys have shown residents trust Paradise tap water more than they trust tap water in general.

To get where it is today, the district had to battle state and federal agencies not just for funding assistance, but also for support in making the types of repairs it felt was necessary to ensure water was truly safe.

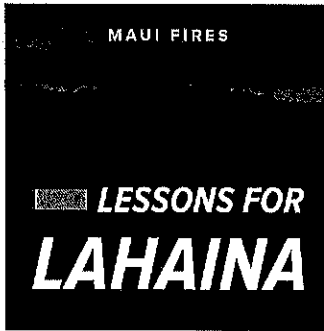
"It's really making sure as a city or a district or whoever is in control, that you're making decisions that you feel are right for your citizens," said Kevin Phillips, who headed the Paradise Irrigation District in the aftermath of the fires.

An Unprecedented Disaster

In the immediate aftermath of the 2018 Camp Fire, which killed 85 people and destroyed more than 11,000 structures in Paradise alone, staff at the Paradise Irrigation District knew the water system had been damaged.

What they didn't know was the extent, Phillips said.

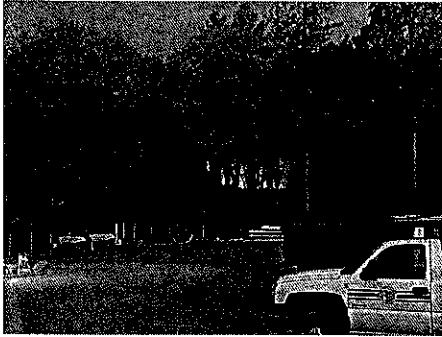
Before it could do anything else, the district had to turn off the water at every single meter in town. Then it turned the water on slowly and began testing the system. It wasn't until Dec. 18 — five weeks after the fire — that the district started getting its first water quality test results back.



Special Report

Numerous towns across the West have been significantly damaged or almost entirely destroyed by wildfires in recent years. This series explores the stories of these communities and the lessons they hold for Lahaina.

When a water system experiences depressurization on the scale that Paradise and Lahaina's did, it creates a vacuum that sucks contamination — chemicals from melted service lines and toxic ash from destroyed homes — back in. Early tests in Paradise came back positive for benzene, a carcinogen also found in small amounts in part of Santa Rosa, a town that had experienced significant wildfire damage the year before. What Paradise found in further rounds of testing was that there was little rhyme or reason to which service lines were contaminated with volatile organic chemicals or VOCs — a broad category of chemicals that are dangerous for people to ingest.



Crews with the Paradise Irrigation District worked through the Camp Fire, even as flames surrounded the district's treatment plant. (Courtesy: Paradise Irrigation District)

There are no state or federal mandates for what VOCs to test for in a water distribution system, Phillips said, adding to the complexity of decisions that individual water districts have to make after a disaster.

Phillips recalls being told by one state agency that his district was being too conservative with health and safety standards and that people could drink water at the level of contamination Paradise was experiencing for 70 years before developing cancer.

"We held to our guns and we held true to who we were. And that's really the only reason why I think at the end of the day Paradise can say 'your water is clean,'" Phillips said.

Most of the contamination was discovered in service lines, which run from the system's main lines to individual properties. Nearly all the main lines were fine — a situation similar to what Lahaina has been finding. That's likely because the main pipes are larger and have water flowing through them more often, decreasing the amount of time that contamination can sit and leach into the pipes, Phillips said.

When VOCs sit for too long, it becomes nearly impossible to remove the contamination without replacing the pipe.



A burned water meter shows the extent of the damage in Paradise after the fire. (Courtesy: Paradise Irrigation District)

The initial recovery plan for the Paradise system called for a systematic approach to testing and replacing service lines. Basically, it meant working from one end of the system to the other, stopping to make a repair when contamination was found.

That approach would have been the most efficient, but it also would have meant that some customers wouldn't get service for years.

The teams in Paradise found that they were able to restore water to individual properties as they were rebuilt or became habitable. As long as the pipes feeding into that area remained pressurized, contamination in the pipes leading to nearby burned properties didn't migrate, said Andrew Whelton an engineering professor at Purdue University who helped the Paradise Irrigation District develop a recovery plan.

That meant the district was able to adopt a "checkerboard" approach where it could restore water first to standing homes and then to properties that had filed for a building permit.

"We got to the point where as soon as a building permit was pulled and approved, we went over there and replaced the service lateral so that it was ready for them," Rich said.

Replacing The Entire System

Testing every service line in Paradise for contamination would have been incredibly time-consuming — and very expensive. The Federal Emergency Management Agency, which provides critical funding for infrastructure repairs after such disasters, wouldn't pay for much of the testing, Rich said.

"They will help you fix it when you know what's wrong, but they won't help you figure out what's wrong," Rich said.

Lahaina is still determining how much of its system it will need to replace. The Paradise district decided fairly early on that it had found so much contamination in the service lines that the best course was to replace every one in the district.

Funding was a challenge. Rich said FEMA wanted the district to prove every line was damaged before replacing it. After lengthy discussions, the district was able to conduct enough tests to statistically prove that at least 50% of the service lines in the system needed to be replaced. FEMA then provided funding for just under 50% of the total through what is called a capped improvement project, meaning funding for the repairs is limited to a certain dollar figure overall.



Paradise is installing new brass water meters with a backflow preventer to keep contamination from flowing into the water system in the future. (Jessica Terrell/Civil Beat/2023)

It costs about \$5,000 and takes a half a day to replace a service line running from the main line to a customer's meter, Rich said. The district is also installing brass meters with backflow preventers at each site to make sure contamination from an individual line doesn't enter the larger system.

A second service line, which goes from the meter to the customer's taps, was the responsibility of property owners to test and repair. Insurance generally covers that for homes that were damaged or destroyed.

Eventually, the district reached a settlement with PG&E — the electrical company found liable for the Camp Fire. In the meantime, the FEMA funding — and some creative financing — allowed the district to get working. State funding helped pay for other repairs not covered by FEMA, including the \$9 million needed to replace a water tank that burned.

The district has also needed to expand its staff to deal with all the testing and repairs, while also losing much of its customer base. Only about a third of Paradise has been rebuilt and the district currently has about a \$2 million annual budget shortfall.

Thus far, it has not increased water rates. Customers pay a service fee of around \$43 a month plus charges for the amount of water they use. People who don't have an active service line but are still members of the district pay about half that. The district has been able to do that for the time being with the \$100 million settlement it received from PG&E.

To break even in the future, the district will need the population of Paradise to return to what it was before the fire

Building Trust

While Paradise was replacing its water system, it continued to test the water lines, checking about every 500 feet in a system of 173 miles. It also continued to test the main lines for two years after the fire.

The water district has now moved beyond installing service lines to properties with building permits and is about a year and a half away from replacing every service line. It's also trying to get ahead of the town's repaving project so that it won't need to dig up newly rebuilt roads.

One of the biggest lessons the district learned during its recovery process was to overcommunicate with the public, Phillips said. Water officials held regular town halls, posted reports online, sent out a biweekly newsletter, published a

map showing every spot it had tested and shared openly about what they knew and didn't know about VOCs in the system.

That created a lot of trust and community buy-in, Phillips said.



The Paradise Irrigation District published an online map that it regularly updated with water testing results across the system. (Courtesy: Paradise Irrigation District)

The district also did so much testing that it could essentially draw a map from the treatment plant to the property of a customer with a restored line and show the results of water tests taken every 500 feet along the way.

"Paradise brilliantly communicated with their community," said Purdue's Whelton. "The water became a foundation of the rebuilding process, and people could feel confident in the methodical way that Paradise followed evidence towards bringing back safe water."

Following the evidence is important, but can also be tricky given the ambiguity of federal guidelines for testing and repairing water systems after a fire. State guidance also varies dramatically.

"There is no state agency that is adequately prepared to respond to these things, nor is the federal government prepared either," Whelton said.

The best path forward is to build on the experiences of other agencies that have gone through it, he said.

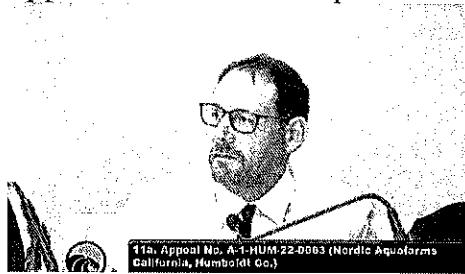
"We are building our way back by using the knowledge gained from these places to help people anticipate what the issues are, find them faster, rebuild faster," he said.

Civil Beat's coverage of Maui County is supported in part by grants from the Nuestro Futuro Foundation.



Coastal Commission tosses appeals for Nordic Aquafarm's fish farm

Appeals surrounded impacts to marine life and greenhouse gas emissions



At a California Coastal Commission meeting Wednesday, Commissioner Mike Wilson said the analysis was right but doesn't take care of all the issues. "We will never find the perfect solution to this," he said. (Screenshot)



By **SAGE ALEXANDER** | salexander@times-standard.com

PUBLISHED: December 15, 2023 at 2:00 p.m. | UPDATED: December 15, 2023 at 4:51 p.m.

The California Coastal Commission decided unanimously Wednesday that five appeals brought to the commission over Nordic Aquafarms' proposed aquaculture facility raised no substantial issues, at least within the confines of the appeals.

"I think their hearts and their minds and their concerns are absolutely in the right places. These are the issues we really, really need to be dealing with," said Commissioner Mike Wilson.

He added he agreed with staff the concerns weren't in the confines of the appeal.

The project aims to replace a decommissioned pump mill on Samoa with a land-based yellowtail kingfish farm. The company aims to eventually produce 15,000 metric tons of fish per year and will eventually need to take millions of gallons of water from Humboldt Bay, plus expend millions of gallons of treated wastewater into the ocean.

The five separate appeals of the project's coastal development permit with Humboldt County — brought by 350 Humboldt, Salmonid Restoration Federation, Redwood Region Audubon Society, Scott Frazer and Alison Willy — cover a range of topics. The appeals include the project's greenhouse gas emissions, effects on marine resources from water intake and discharge, allowance of a fire road in dune mat habitat, public access impact and a lack of an evacuation plan during a tsunami.

The staff recommendation was that none of the appeals raised a substantial issue with the project's consistency with Humboldt County's Local Coastal Plan or the public access policies of the Coastal Act. Staff noted marine impacts are to be addressed during other decisions like the already approved wastewater permit and soon-to-be-discussed intake permit.

Appeals

350 Humboldt's appeal said the project does not minimize the energy use and associated greenhouse gas emissions for fish feed production, use of refrigerants or trucking to and from the project site. Humboldt County Planning Director John Ford said that concerning these greenhouse gases, it was not Humboldt County's negligence but the limits of what could be factual.

"The fact of the matter is, we evaluated it up to a point where there could be some understanding of what's being evaluated," and going beyond that would be speculative, he said at the meeting.

In a report, commission staff found Humboldt County's calculations had a high degree of legal and factual support and the analysis of greenhouses gases of feed would fall outside common analysis.

One of the people appealing the permit disagreed. Scott Frazer said these kinds of greenhouse gas emissions should be considered. He argued the local coastal plan is badly out of date from the early 1980s, with no coverage of greenhouse gas impacts.

Three of the appeals found issue with marine resources, particularly the disposal of treated wastewater into the ocean and the extraction of seawater from Humboldt Bay. Threats to marine life and salmon are particular concerns.

In the report, staff noted the commission will be addressing the marine resources in reviews of the ocean discharge and seawater intake separately – it says the scope of these impacts are not within Humboldt County's coastal development permit.

"While Nordic is proposing to use a large portion of the total volume of seawater proposed for extraction from the bay by the harbor district for its aquaculture facility, Nordic is not the applicant," said Melissa Kraemer, North Coast District Manager, during a staff presentation. The applicant is the harbor district. The commission approved a discharge permit for 10.3 million gallons a day of treated wastewater from an outfall pipe 1.5 miles off Samoa in November. In early 2024, the commission will consider the harbor district's application to pull water from Humboldt Bay, and the staff report notes the commission will evaluate marine impacts at this time.

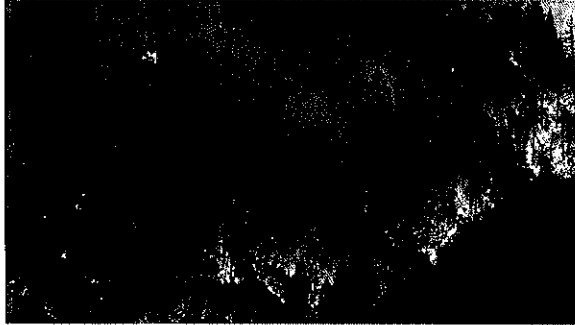
Scott Frazer and Daniel Chandler from 350 Humboldt asked the commission to consider the permits at the same time. Frazer argued the impacts of entrainment when salt water is pumped from Humboldt Bay must be evaluated at the same time as the building, noting impacts to fish.

As for the other appeals, the staff report said Humboldt County had already addressed conflicts with coastal access points. It said Humboldt County's coastal development plan required the development of a tsunami evacuation plan and addressed tsunami risks. It said the plan includes phrasing that supports the conclusion that the development would be designed to prevent impacts to the dune mat area.

Ford and Brenda Chandler, CEO of Nordic Aquafarms, spoke in support of the staff recommendation. Commissioner Mike Wilson said it's going to be hard to find food systems that have no impact.

California wildfires could be transforming natural metals into cancer-causing compounds

BY SHARON UDASIN - 12/12/23 11:00 AM ET



Forest burns in the Carr Fire on July 30, 2018 west of Redding, California. (Getty Images)

Wildfires in parts of the U.S. West may be transforming a benign form of chromium into its cancer-causing counterpart — potentially endangering first responders and surrounding communities, a new study has found.

The research, published Tuesday in the journal Nature Communications, identified high levels of the hazardous metal hexavalent chromium, or chromium-6, at specific types of burn sites along California's North Coast.

Also known as "the Erin Brockovich chemical," chromium-6 emerged in the public eye in the 1990s after Brockovich — then a legal aid — found that it was contaminating drinking water and sickening residents of Hinkley, Calif.

This toxic compound, which raises cancer risk when inhaled or ingested, was not present at the sites of interest for the study before they burned.

Rather, soils and plants at these locations were rich in naturally-occurring trivalent chromium — chromium-3 — an essential nutrient that helps the human body break down glucose.

While chromium-6 can also exist naturally in the environment, this toxic form of the metal more often contaminates communities via runoff and wastewater from industrial processes.

Wildfire smoke plumes are known to transport dangerous pollutants such as aerosols, gases and fine particulate matter, but the researchers wondered whether the same could be said for heavy metals, and what the risk might be to firefighters and those who reside downwind.

"In the complex mixture of gasses and particles that wildfires spew out as smoke and leave behind as dust, heavy metals such as chromium have largely been overlooked," senior author Scott Fendorf, a professor at Stanford University's Doerr School of Sustainability, said in a statement.

Laboratory experiments conducted by Australian researchers in 2019 had already shown that chromium-6 could form rapidly from chromium-3 in surface soils set ablaze.

This transformation occurs through a process known as oxidation — or in this scenario, a reaction between chromium and atmospheric oxygen in which electrons are lost.

Because that process is slow at low temperatures, it "effectively doesn't happen," Fendorf, who is also a senior fellow at the Stanford Woods Institute for the Environment, told The Hill.

"But when you start heating the samples up through in this case wildfires, that causes that reaction to occur," he said. "And so, you've transformed from the benign to the really toxic form."

With that in mind, Fendorf and his colleagues decided to test the theory that wildfires could leave soils contaminated with chromium-6 in their stead.

The scientists focused their attention on California's North Coast, where they identified four recently burned ecological preserves that contain chromium-rich rocks, such as serpentinite.

While the southern Sierra Nevada tends to have more granite and less chromium content, the northern Sierra has more serpentinite — California's state rock, Fendorf noted.

"When you bring the wildfire through, that then leads to much higher levels of chromium-6 being produced," he said.

The four research sites — Pepperwood Preserve, White Rock Preserve, Modini Preserve and Sylvia McLaughlin Natural Reserve — were all partly or completely burned during the Kincadee or Hennessey fires, which respectively occurred in Nov. 2019 and Sept. 2020, per the study.

Lead author Alandra Lopez, a postdoctoral scholar in Earth system science at Stanford's Doerr School, collected soil from these sites and then separated out the smallest particles that are most sensitive to wind transport.

She then measured the levels of chromium-6 in this ultra-fine dust from both burned and unburned areas, while also gathering data on local fire severity, prevailing soil conditions, underlying geology and ecosystem traits.

In chromium-rich sites where vegetation fueled long-lasting fires at high heat, the scientists found that toxic chromium concentrations were 6.5 times higher than those in unburned areas.

"Our study suggests far more attention should be paid to wildfire-modified chromium, and we presume additional metals as well," Lopez said in a statement.

Doing so, she added, is necessary "to more thoroughly characterize the overall threats wildfires pose to human health."

As far as these potential threats are concerned, the authors said they believe that fire-induced toxic chromium exposure has the most acute impacts on first responders and people who live near the blazes. In comparison to exposure to chromium-6 via contaminated drinking water, as discovered in Hinkley by Brockovich, Fendorf stressed that "inhalation is far worse."

"Toxicologists are really clear on that," he said. "If you had the choice, you want to drink it before you breathe it. And not that they suggest either one."

The extent of the threat also varies based on which plants are fueling the fire, according to Fendorf. Grasslands, for example, don't produce sufficiently high temperatures to create a lot of chromium-6, but shrubs and tree canopies do provide ample heat, he explained.

Even after the fires end, strong winds could expose nearby populations to fine particles of chromium-laced soil, the researchers noted.

The brunt of the risk associated with inhaling airborne chromium-6 likely declines following the first big rainfall, which can wash the metal underground, according to Fendorf.

But in an arid environment like that of the U.S. West, which is facing increasing and prolonged droughts due to climate change, exposure risks could persist for those rebuilding and revegetating burned areas, he warned.

While chromium has been Fendorf's biggest toxin of interest due to "the radical transformation that takes place," he said he is also concerned about other metals, such as manganese, certain forms of iron, nickel and cadmium.

Stressing the need for further research into wildfire-related exposure to heavy metals, Fendorf noted that the time being, wearing an N95 at such a burn site could be beneficial.

Fendorf said that he and his team are now creating predictive maps, so that firefighters have more awareness as to where they might encounter fine particulate matter and where they might also face chromium-6 exposure risk.

He and his colleagues have been preparing for the past two years to deploy active monitoring devices that are capable of monitoring contaminants amid a blaze, but such conflagrations have been minimal during this period.

Ed Burton, who led the 2019 research on the transformation of chromium-3 to chromium-6, credited the new study for showing "that wildfires cause a dramatic shift in chemistry of chromium in fire-impacted soil."

"Significantly, the authors show that newly-formed hexavalent chromium can persist in surface soil and ash for many months after wildfires," Burton, a professor of environmental geochemistry and mineralogy at Australia's Southern Cross University, told The Hill in an email.

In addition to describing the potential health risks to those exposed to soil particles or ash, he stressed his "particular concern" as to the impacts of these findings on the U.S. West.

The region could be at particular risk because "large areas of land are naturally rich in soil chromium and because wildfires appear to be increasing in severity and frequency due to climate change," said Burton, who was not involved with the Stanford study.

Dimitrios Alexakis, a professor of geology and geochemistry at Greece's University of West Attica, likewise described "a broad global threat of dust-born metal and wildfire smoke to humans," stemming from the mix of these blazes and chromium-rich soils.

"This study demonstrates an underrecognized health threat to humans associated with the geology and fire severity," he told The Hill in an email.

Alexakis, who was also not involved in this research, has studied both the dispersion of toxins from burned vegetation and the impacts of fire-fueled land contamination on human health.

The Stanford study, he observed, could help offer "fresh perspectives on the reasons behind the heightened health risks associated with exposure to wildfire smoke compared to pollution from other sources."

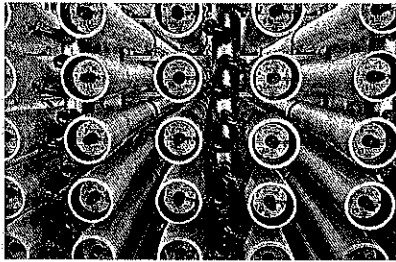
Understanding how environmental factors contribute to the creation of chromium-6 through fire could also help scientists devise predictive tools to mitigate exposure risk and guide policymaking, according to Alexakis.

As further research on the subject unfolds, the Stanford team stressed that the results will be applicable not just to California's North Coast, but to fire-prone areas with metal-rich landscapes around the world.

"With wildland fires expected to increase in frequency and severity in many geographic regions due to a combination of climate change and past fire management, post-fire dust emissions are likely to rise," the authors stated.

Both the Pacific Rim and Mediterranean areas have geologies that are higher in chromium, as do other parts of Europe, Australia, South Africa and Brazil, according to the study.

"Every continent has areas that are quite high at risk, so it's not a small point," Fendorf said. "It's really a broadly distributed problem."



Wastewater is forced through microscopic holes in tightly wrapped membranes wound in these fiberglass vessels during the reverse osmosis stage of purification at Orange County's Groundwater Replenishment System. Other communities around the state and country may soon emulate the Southern California county's practice of recycling all of its wastewater. Matt Vasilogambros/Stateline

STATELINE: From flush to faucet: More places look to turn sewage into tap water⁵⁹

Overcoming the 'yuck' factor is a challenge.

by Matt Vasilogambros, [Stateline](#)

December 12, 2023

[Read more Stateline coverage](#) of how communities across the West are grappling with drought that's worsening because of climate change.

After an Orange County resident flushes her toilet, the water flows through the Southern California community's sewer system, meanders its way to the sanitation plant, has its solids removed, is piped to a wastewater recycling facility next door and undergoes three different purification processes until it is clean enough to drink.

"It tastes like water," said Mehul Patel, executive director of operations for the Orange County Water District's project, after taking a gulp from a clear plastic cup at the sampling station, as he stood outside the final purification process facility on a warm afternoon earlier this month.

"It's just like any other water, but it's gone through a lot," he said. "People shouldn't judge where it came from, but where it is now."

No large community in the U.S., not even Orange County, is taking water from toilets and transforming it directly into clean drinking water right now. But Patel's demonstration might offer a glimpse of the future, as states and communities across the country design new plants that will do just that, giving communities more control over their water supply as the climate gets drier.

The idea is still new in many parts of the country. And officials face some pushback from skeptics concerned about the high costs of advanced purification systems and from a public not used to the idea of drinking what was once their own waste.

Every day, Orange County's Groundwater Replenishment System, known to the locals as GWRS, purifies 130 million gallons of wastewater coming from 2.5 million residents. It's the world's largest wastewater recycling plant, and the first in the United States to recycle every ounce of its county's wastewater. This [system](#) of pipes, purifiers and chemical reactions has become a required visit for any water official looking to adopt a similar program in another state.

Patel expects more visitors now that California's top water officials are slated to greenlight new rules later this month that would allow counties to purify their wastewater and inject it immediately into the drinking water supply. If approved, as expected, regulations would go into effect in July.

Currently, all of Orange County's recycled wastewater is used to replenish its groundwater [aquifer](#) and protect it from seawater intrusion. The water is later pumped out and purified once again to drinking water

standards and distributed throughout the county. There are no plans to change this two-part process anytime soon.

Some Golden State communities do the same; others use their recycled wastewater to irrigate fields, water parks or merely dump it into the Pacific Ocean.

But as the state faces a drier future in which the amount of water coming from the Colorado River and the Sierra Nevada Mountains may not be reliable, top water officials say the state needs more sources of drinking water.



"We spend a lot of money and energy moving water from different parts of the state to Southern California, where it's used once and dumped in the ocean," said Darrin Polhemus, deputy director of the California State Water Resources Control Board. "That's maybe not the smartest way to deal with a resiliency question." Communities across the country, even beyond the increasingly arid West, have been using recycled wastewater to shore up water supplies drained by larger populations, over-pumped groundwater aquifers, hotter summers and less precipitation.

Facilities are pumping out millions of gallons of recycled wastewater in Arizona, Georgia, Texas and Virginia. Regulators in Colorado, Florida, Iowa and Kansas are considering how to use it. In Arizona, for example, some cities use recycled wastewater to replenish dormant rivers and brew beer; others use it to refill underground aquifers, cool factories or keep parks and golf courses green. But rarely has wastewater gone directly into the drinking water supply.

Daniel McCurry, an assistant professor of civil and environmental engineering at the University of Southern California, expects that in two decades at least half of states will adopt wastewater recycling to meet the hydrological demands of a hotter, drier climate.

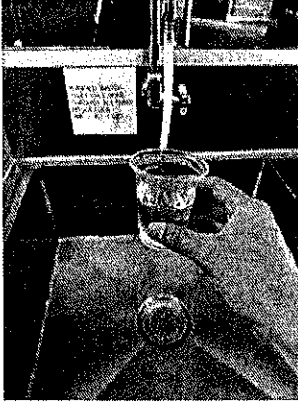
"Places you wouldn't normally think of as dry or water-stressed at all are starting to build these plants," he said. "And that's only going to accelerate.

"Anywhere that's primarily reliant on groundwater is going to have water reuse in their future."

HOW IT WORKS

The town of Castle Rock, Colorado, lies in a valley east of the Rocky Mountains.

Directly recycling wastewater into drinking water will eventually allow residents to hold onto more of their precious water supply. Rather than continuing to send treated wastewater into East Plum Creek, where volumes can be lost to evaporation, the town will be able to recycle its municipal water over and over at a water treatment plant that was upgraded in 2021.



"We keep more of a closed loop and we bring that water directly back," said Mark Marlowe, director of Castle Rock Water, of the incoming system.

While the plant already has the capability, it's not sending treated wastewater directly to customers yet; Marlowe says it will likely take three to five years to meet new regulations on potable reuse announced by the state in January. The rules include a full year of water quality monitoring and a community awareness campaign before implementation.

While Castle Rock will spend more to comply with those regulations, it also expects to save money on energy costs by reducing the distance water must be moved. And the city's sewage will actually provide more predictable water quality, Marlowe said. The quality of creek water can vary wildly as salt runs off in the winters or as storms increase sediments in the water.

"There is no new water," Marlowe said. "It's really just a question of whether the water is being recycled through natural processes or through manmade engineering solutions."

In Orange County, the science of turning human waste into clean water is on full display.

After showing a Stateline reporter around the 15-acre wastewater recycling plant southeast of Los Angeles, the air around it heavy with the smell of standing water, Patel stopped at three display sinks designed for the tour frequented by local students and water officials from out of town — one filled with amber-tinted water, another yellowish and the third crystal clear, each showing what the wastewater looks like after the three purification steps.

Starting at microfiltration, wastewater is sucked through microscopic holes in hollow plastic fiber. At reverse osmosis, the water is forced through holes 1,000 times smaller in tightly wound membrane sheets, wrapped in fiberglass tubes. And at advanced oxidation, the water is hit with ultraviolet light combined with hydrogen peroxide.

From sewage to drinkable water, the process takes 20 hours.

In the next decade, Southern California cities such as Los Angeles and San Diego plan to recycle wastewater for direct use as drinking water. Both would add more purification steps than what Orange County uses to ensure pathogens are removed before the water reaches consumers.

"As the drought has gotten worse, the interest has increased," Patel said.

WHERE IT'S GOING



Even in the typically water-rich Midwest, unpredictable supplies have some communities considering turning wastewater into drinking water.

In southern Iowa, the town of Osceola could become the first in the state to use treated wastewater as part of its drinking supply. Three years of drought have left the town's West Lake dangerously low, the Des Moines Register reported.

The topic came up time and again at a water conference hosted by the Kansas Water Office last month. In one presentation, Jason Solomon, a technical assistant at the Kansas Rural Water Association, projected a map of the Neosho River pocked with toilet icons marking the dozens of places communities release treated wastewater into the river. Sometimes, those discharges aren't far from the intake valve of the next town downstream relying on the water.

His point: The current system is only one step removed from directly recycling wastewater. Rivers and reservoirs are as much a mental barrier as a physical one in terms of water quality, said Solomon, whose group assists small water providers across the state.

He thinks direct wastewater recycling is likely a ways off in Kansas given its stigma and costs. But it's an idea worth considering with recent droughts threatening drinking water supplies even in the traditionally wettest part of the state.

"Why don't we just take it directly from the wastewater plant?" he said in an interview. "Why would we put it back in the river? It's going to get dirtier in the river."

PUBLIC PERCEPTION IS KEY

Although experts say the science is clear, convincing the public has been a challenge, including in Southern California.

It's just like any other water, but it's gone through a lot. People shouldn't judge where it came from, but where it is now. – **Mehul Patel, executive operations manager for the Orange County Water District's wastewater recycling project**

Three decades ago, Los Angeles County sought to bring what the local media dubbed "toilet to tap" to the region, but officials were met with fierce resistance by politicians and residents. It stopped the project. The "yuck" factor can be challenging, said David Sedlak, director of the Berkeley Water Center at the University of California, Berkeley.

"When you look at some communities where they haven't done water recycling yet, they have to start building legitimacy from the ground up," said Sedlak, who recently published a book on water solutions.

"Sometimes that means changing the culture of transparency and openness. And sometimes that means working with the public and bringing them on board to see and understand it."

Often, people assume the water coming from rivers is cleaner than it really is, Sedlak said; the public may not fully grasp that it can include agricultural runoff or the wastewater from some upstream communities. A future plant in El Paso, Texas, will include an educational exhibit area so schoolchildren and other visitors can see the science behind the treatment process.

Adjacent to an existing wastewater plant, the \$130 million purification facility will send treated wastewater directly back into the drinking water system. Construction is expected to begin next year, but the city has been working to educate and build trust with the public for the past decade, said Christina Montoya-Halter, the communications and marketing director for El Paso Water.

"I don't want to say it was easy," she said. "But we are in a different position in El Paso because we've been talking about the need to diversify for a long time."

The city sources water from the Rio Grande and underground aquifers, and runs a desalination plant to treat salty groundwater.

The new treatment plant, which should be running by 2027, is expected to produce up to 10 million gallons per day – or about 6% of the city's annual needs. But it's considered a crucial supply since El Paso hasn't received its full allocation of Rio Grande water in about a decade.

Gilbert Trejo, vice president of engineering, operations and technical services for the utility, said directly treating wastewater will cost roughly double the price of other treatment processes.

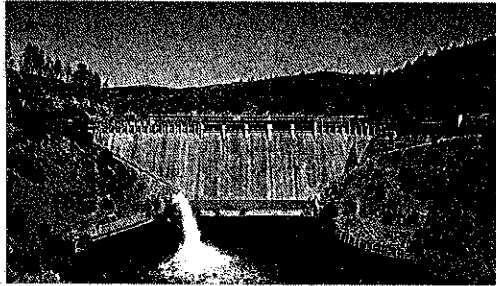
Trejo, who serves on the board of a national trade group promoting the use of recycled water, expects directly recycled wastewater will become mainstream as officials increasingly view it as a solution to water shortages.

"It's not just a solution for arid states and arid regions," he said. "This also solves a lot of problems in water-rich areas."

THE MENDOCINO VOICE

Decommissioning the Potter Valley Project: a turning point for Mendocino County

By Kate Fishman |



Scott Dam, one of two Eel River dams, which creates the reservoir of Lake Pillsbury. (Kyle Schwartz/CalTrout)

MENDOCINO Co., 12/11/23 — After 100 years of water diversions from the Eel River to the Russian River and the sometimes successful provision of hydroelectric power, license holder PG&E published its Initial Draft Surrender Application and Conceptual Decommissioning Plan for the Potter Valley Project in November. According to the initial plan, Potter Valley Project operations will end and Scott Dam will be removed.

The first draft plan is a conceptual overview, which will get more specific over the next two years. The project includes two dams — a larger structure called Scott Dam where water is stored at Lake Pillsbury, and the smaller Cape Horn Dam that creates the Van Arsdale Reservoir. At Cape Horn Dam, a coalition of regional agencies, counties, and tribes has stepped forward to propose keeping a much lower impact water diversion in place. PG&E included this proposal in its initial draft in a non-binding capacity, and is considering whether to incorporate the new diversion facility into its final decommissioning plan, to be published in January, 2025. The coming months will be a critical inflection point for Mendocino County, as much of the local agriculture on which our economy relies today owes to the 1905 establishment of the Potter Valley Project, which made the easier to farm.

“Now it’s our turn to figure out, for the next 100 years, what are we going to do?” 1st District Supervisor Glenn McGourty, a longtime advisor regarding vineyards’ and farmlands’ impacts on watersheds for the University of California Cooperative Extension, said in an interview with The Mendocino Voice this week.

Anyone with an opinion on how the decommissioning plays out has until Dec. 22 to weigh in with a written comment for PG&E; details on how to comment are included at the end of the article. Comments will likely pour in from an array of people representing at least four counties, numerous Indigenous tribes, and interested individuals from career farmers to recreational fishers.

On Dec. 8, at the most recent Russian River Water Forum — a gathering first convened at the beginning of this year to identify water supply resiliency solutions in the Russian River basin — many of these stakeholders presented on top-of-mind issues for the region’s water future, and discussed the open comment period on PG&E’s initial draft document. Mike Shaver of the Potter Valley Tribe and Anna FarPorte of the Sherwood Valley Band of Pomo Indians shared about their water quality testing initiatives. Members of the Coyote Valley Band of Pomo, the Wiyot Tribe, the Bear River Band of the Rhonerville Rancheria, and the Cahto Tribe of the Laytonville Rancheria also attended, with several representatives vocalizing a desire to be thoroughly consulted both by PG&E and by regional authorities as decisions are made about the joint futures of the Russian and Eel basins.

In another presentation, Vivian Helliwell, representing the Pacific Coast Federation of Fishermen’s Associations, gave a look at the history of salmon and steelhead fishing that long underpinned local community lifeways. Now, Chinook salmon from the Eel are at less than five percent of their historic runs and steelhead numbers are “alarmingly low,” per a report from Charlie Schneider of California Trout. The Eel River has been heavily affected by logging, canneries, road development, climate change and other human impacts hindering both the watershed’s health and that of its communities. In 2023, it was

listed as one of America's most endangered rivers. Removing the dams is just one component of the path to a healthier watershed — but as lawsuits under the Environmental Species Act laid out in recent years, reconnecting the Eel by removing dams is a necessary part of recovery for fish populations and as such, a boon to the human communities that rely on the rivers. Further, due to seismic activity risk, Scott Dam was recently found to be too dangerous to continue storing high water levels at the adjoining Lake Pillsbury, meaning its spillway gates will remain open until its removal.

At this point in the decommissioning process, public say comes down to a fairly limited range of choices. PG&E will remove Scott Dam, but is still weighing a rapid dam removal of around two years against a phased dam removal in around three years, which would entail lowering and notching in three phases. PG&E is considering the proposal for a New Eel-Russian Facility at the location of Cape Horn Dam to continue diverting water to the Russian, but has no obligation to include this facility. Complete removal of Cape Horn Dam without reconstruction of a diversion facility is still in play; proponents are also weighing the diversion options of a control section with a pump station or a roughened channel with gravity supply. “PG&E will review feedback on the drafts to prepare a final plan,” spokesperson Paul Moreno wrote to The Voice this week, when questioned about what factors the utility would weigh in its decision to support a new diversion facility. “In general, we are encouraged when proposals show a broad base of support from various stakeholders and are fair to PG&E electric customers.”

He said the proponents' demonstrated financial and technical ability to execute the diversion will be critical in informing what route PG&E decides to take. Sonoma County, Sonoma Water, and the Mendocino Inland Water and Power Commission have just signed onto a new joint powers agreement, or JPA, establishing the Eel-Russian Project Authority to take over and maintain a diversion from the Eel to the Russian River. The Round Valley Indian Tribes (RVIT) will hold a seat on the board. While other area tribes have a vested, vocal interest in the future of the basins as well, Nikcole Whipple — an intern with Save California Salmon and a student of Indigenous law — explained at the Russian River Water Forum meeting that RVIT holds a Tribal Water Right on the Eel River as a federally recognized tribe with lands adjacent to the waterway.

Other proponents of the New Eel-Russian Facility include California Department of Fish and Wildlife, Humboldt County, California Trout, and Trout Unlimited.

As for the diversion options included in the draft — the pump station or the roughened channel — Chair Janet Pauli of the Mendocino County Inland Water and Power Commission, who co-owns Pauli Ranch in Potter Valley, says it's too early to make a call about which option would best serve both fish populations and the interests of water users. Studies of the Eel currently underway will be critical to a final proposal. “If you know what fish need to negotiate in the river up until they get to the point where Cape Horn Dam is now, then you can make a determination when you do the modeling of the flows at this specific location [around] different timing of flows, different timing of life cycles, depth of water, velocity of water,” she said. “You can start to look at whether it is as easy for the fish to negotiate as, for example, the hardest place in the river downstream that they've already been able to negotiate.”

A pump station would function alongside the river, whereas a roughened channel would use part of the existing in-river structure to facilitate rapids for fish passage. Engineering is underway to weigh the factors Pauli mentioned. The groups plan to definitively choose one way forward by spring, ahead of PG&E sending its Final Draft Surrender Application to FERC in June, 2024.

Schneider of California Trout emphasized that many of the studies commissioned as part of the Two Basin Partnership (which had once proposed taking over the project) have been critical to reaching this point, despite the partnership's ultimate failure.

“Whether it's the studies to quantify the habitat above the dams and really understand the importance of it [or] the dam removal studies [or the] economic studies, all that work is proving valuable still,” he reflected. “I do think we have really been moving forward with our understanding of the project and the dams on the whole.”

As we approach the public comment period, Pauli hopes that water users who rely on diversions for their livelihoods will make their desire for a new facility known. Schneider also pointed out that, as PG&E has laid out this high level plan, they're only looking to nail down approaches to the options listed within — so, for example, desires for Scott Dam to remain in place will be a moot point if expressed in public comment.

Should a new diversion facility not go forward, McGourty fears a dire situation for inland Mendocino County and the county's economy as a whole.

“We’d probably have to start from scratch,” he said. “It’s not likely that we’d be able to get new water rights in our lifetime.”

But he also emphasized that a continued diversion needs to be supported by other programming to increase water resiliency — like raising the channel from the Russian River to flood the Ukiah Valley floodplain in winter, implementing more water storage, investing in more intensive studies of groundwater, and looking into expansions of recycled water initiatives such as Ukiah’s purple pipe program (on track to offset 50% of the city’s water use). The volatility of water supply in Mendocino County means more sustainable water infrastructure is critical.

With dam removal going forward, Schneider is optimistic about the next 100 years — especially when it comes to the Eel River basin. In concert with restoration efforts, he expects to see changes to the wide gravel beds that tend to emerge when rivers are controlled, more low-gradient river sections prompting beaver activity in the river, revegetation and reseeded along the river banks, and an eventual return of salmon and steelhead to the Eel’s headwaters.

“We’ve seen historic accounts that the Gravelly Valley area was thought to be one of the most important spawning grounds for Chinook in the upper Eel River,” he said. “I don’t think it would be a surprise to any of us to see Chinook spawning in the former lake bed, once the river’s had time to reset itself.”

As Pauli put it, much of the process will have a “hurry up and wait” feel — but a final surrender application with much more detail, following FERC’s feedback, is expected by January, 2025. Among all the interests in play, Supervisor McGourty also emphasized his hope that no one see the question of the basins’ future as a binary one — as if what’s good for the Humboldt County watershed isn’t also beneficial to Mendocino County residents who rely on water diversions.

“We’re in both basins,” he said. Then he added, “There’s been significant damage in the last hundred years to habitat, which is part of the reason why our fisheries are not doing well. ... [The river] is a shared resource that’s very, very important to our heritage, our culture, and our future.”

To see more details on the plan and submit comment, you can review the Initial Draft Surrender Application using the password PV_Surrender and share any comments and thoughts with PG&E before Dec. 22. Comments can be submitted to Senior Licensing Project Manager Tony Gigliotti at 12840 Bill Clark Way, Auburn, CA 95602 or by email at PVSurrender@pge.com.

The Revelator

Wild, Incisive, Fearless.

An initiative of the Center for Biological Diversity

In Phase 1 of the Oregon Gulch project, thousands of cubic yards of legacy mining tailings were removed from the site. Photo: Aaron Martin, Yurok Tribal Fisheries Department

‘Like a Dead Zone’: Undoing Decades of Environmental Harm on a California River A major restoration effort by a coalition of Tribes and government agencies could help imperiled fish and other animals on the Trinity River.

Oceans & Clean Water

December 11, 2023 - by Juliet Grable

In late September 2023, a one-mile stretch of the Trinity River in northern California looks and sounds like a construction site. Large yellow machines crawl across bare ground, the steady growl punctuated with warning beeps. Behind pyramids of stockpiled materials — mulch, gravel, logs — the river flows serenely.

Aldaron McCovey manipulates his excavator, using the back of the bucket to deftly smooth out fine material on a bare new bank.

“It was a little overcut, so we’re filling it in so that there’s no standing water,” he explains.

A fisheries restoration technician for the Yurok Tribe, McCovey is working on an ambitious restoration project called Oregon Gulch, just east of Junction City, Calif. Here, crews from the Yurok Tribe Construction Company are rerouting a straightened stretch of the Trinity River into a newly sculpted meander to help restore the river’s form and function.

Getting to a clean slate required moving mountains of cobbles and gravel — the legacy of 20th-century dredge mining. Seventy years ago, monstrous machines chewed through river and valley, funneling rocks, mud, sand and water into a sluice, extracting the gold and dumping the spoils behind in pile after pile after pile.

“This time last year we’d be standing on 30 feet of tailings,” says McCovey. “It was like a dead zone.”

In August 2022, a procession of trucks began transferring the tailings to a quarry half a mile down the road. In total, they have removed 580,000 cubic yards of material from the site — a staggering 30,000 truckloads.



Prior to restoration, the Trinity River at Oregon Gulch ran in a straight line and mountains of mining tailings blockaded the bank. Photo: Aaron Martin, Yurok Tribal Fisheries Department

Now large machines are once again moving through the valley, this time with the aim of creating floodplain habitat that will sustain young salmon before they migrate to the ocean.

“We have this nice meander, some deep holes and some off-channel habitat,” says McCovey. “I think it’s going to be great for fish.”

The project is part of the Trinity River Restoration Program, a long-term collaborative effort involving the Yurok Tribe, Hoopa Valley Tribe, and state and federal agencies to restore 40 miles of the Trinity River below Lewiston Dam. Oregon Gulch is the partners’ 40th project; it’s also the largest, and the first to take on the legacy of dredge mining at such a scale.

A River Turned Upside Down

The Trinity River originates in the granite Trinity Alps, flowing 165 miles before joining the Klamath River in Weitchpec, Calif. For thousands of years Indigenous peoples — ancestors of today's Hoopa River and Yurok Tribes — fished the river. Gold seekers first arrived in 1848; before long, they had set up mining operations on every bar of the river, using water wheels, diversion dams, water cannons and finally, large dredges to extract every ounce of precious metal.

The massive floating platforms worked the Trinity and its larger tributaries, chewing through valley bottoms down to bedrock. The operation literally turned rivers upside down, and while much of the sediment washed downstream, some of the finer material lay trapped underneath gravel and larger cobbles.

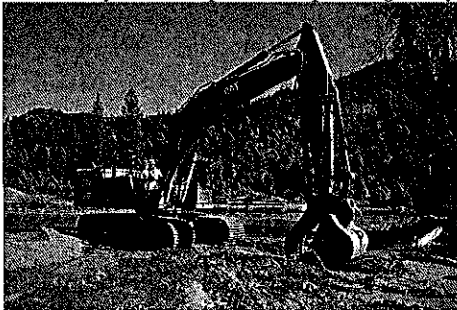
In 1955 mining was supplanted with another catastrophe when Congress concluded that excess water in the Trinity River that was “wasting to the Pacific Ocean” could be diverted to the Central Valley “without detrimental effect to the fishery resources.” By 1963 two dams had been built and the Trinity River Diversion began transferring water to the Sacramento River watershed.

The dams blocked over 100 miles of habitat for salmon and steelhead, and in the early years, 90% of the water impounded by the dams was diverted to the Central Valley Project. What little water was sent downstream was artificially managed. Flows flatlined, and the river no longer ebbed and flowed with the seasons and storms.

Chinook and coho salmon and steelhead plummeted. As the consequences of the diversions, compounded by mining and logging, became clear, the Department of Interior began amending its management strategy, and in 2000, the agency called for the restoration of Trinity River anadromous fish populations. The Trinity River Restoration Program was set up to carry out the directive by actively restoring the 40 miles below Lewiston dam and managing the timing and volume of water released from upstream.

Letting the River Decide

The Yurok Tribe has been implementing those restoration projects for years; in 2020, the Yurok Tribe Construction Company officially formed as a separate entity. The company occupies a specialized niche, with operators like McCovey who have years of experience operating heavy equipment specifically for restoration work.



Heavy equipment operator and Yurok Tribal member Aldaron McCovey has been involved in restoration work since 2009. Photo: Juliet Grable

To help fund the \$12.5 million project, the Yurok Tribe captured a \$4 million grant from the state of California. The Tribe also led the design, though, like all of the program's projects, all of the partners were involved.

The most engineered aspect of the project is a constructed landslide, called the “plug,” designed to prevent the river from routing back into the straight channel.

“The bulk of cost was material moving,” says Chris Laskodi, fish ecologist for the program. “It’s one of our simplest designs because we’re basically telling the river to do what it wants to do.”

A newly created floodplain is designed to sit just above the river level.

“That’s the exciting part,” says Wes Scribner, executive director of the Yurok Tribe Construction Company. “Any time you have increased flows, it will basically turn into a lake.”

The inundated valley will host an abundance of aquatic insects — a banquet for young Chinook salmon to feast on before heading out to the ocean. An area like this will also be warmer in spring, an ideal nursery when the mainstem of the river is still frigid from snowmelt.

Eventually the river will find its own route, depositing trees, brush and rock along the way.

The partners have seen a four-fold increase in juvenile salmon on the 40-mile “restoration reach” since 2005, but this hasn’t translated into an increase in adults returning to spawn just yet. Poor ocean conditions, prolonged drought and perennial water-quality issues on the Klamath River have taken a grim toll. Last spring, in anticipation of woeful returns of adult salmon to California’s rivers, the state canceled commercial and recreational Chinook salmon fishing for the year.

There is hope: By the end of 2024, four dams on the Klamath River will be completely removed. This monumental act of restoration should help improve water quality and hopefully reduce fish diseases, eventually translating into more fish on both the mainstem and tributaries like the Trinity. In the meantime, project partners on the Trinity are using adaptive management to improve their projects, such as making sure floodplains are low enough to be regularly inundated.

They’re making other tweaks, too, like ensuring that the floodplain banquet is available when young fish need it most.

Today the Trinity River is allotted about half of the water that’s captured by the dams, and springtime flows are managed to mimic surges from storms and snowmelt.

In 2023, for the first time, the partners increased flows earlier, from February to April. Though it’s hard to draw solid conclusions from a single year, the partners observed that the inundated floodplains grew more fish food and increased the physical space where young fish can be. Fish also grew measurably larger.

This timing is critical.

“We need to start using the water [we have allotted to us] earlier in the year,” says Mike Dixon, executive director of the Trinity River Restoration Program. “In any given year, 60 to 80% of Chinook have left the reach once we start putting water onto floodplain habitat we’ve created.”

The Hoopa Tribe has opposed the winter flows out of concern that the practice won’t leave enough water to keep the river from becoming lethally warm in summer. The Trinity Management Council voted against implementing variable flows this coming winter. However, new biological opinions for both the Central Valley Project and for the operation of the Trinity River dams are being developed, which could impact both the timing and volume of water the restoration partners have to work with.

“The trend has been to send more and more water down the Trinity River,” says Laskodi. “This will hopefully be the next step towards a better fishery.”

Green and Fuzzy

For half a century, the flows in the Trinity River were essentially flatlined. This meant that narrow-leaf willows, which grow closest to the riverbank, were not subjected to regular scouring. The willows grew in thickly, outcompeting other plants and creating narrow berms that prevented the river from spreading out into its floodplain.



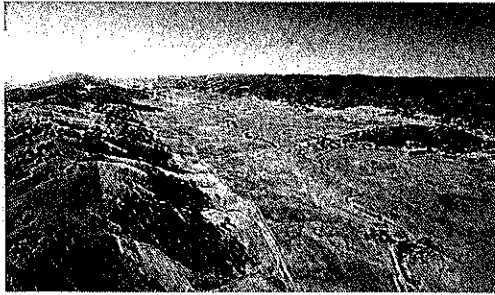
Native seed mixes are carefully prepared so that a crew from the Hoopa Valley Tribe can revegetate the site. Photo: Juliet Grable

During construction, a crew from the Hoopa Valley Tribe began planting clusters of willow stakes and cottonwood trees, which readily take root, in the bare banks. They are using several different native species, since each thrives at slightly different elevations above the river.

On October 15 when the dumping, spreading and scraping of material ceased, the crew began the quiet work of seeding and planting the raw banks and floodplain. The Tribe has been vegetating the program’s restoration projects since 2015. Under the direction of riparian ecologist Veronica Yates, they are working with 45 native species, planting shrubs and trees and using seed mixes tailored for each location. The vegetation will help support a variety of birds and wildlife while reducing erosion.

Over much of the site, they're planting in a layer of fine material mixed with fragrant wood chips — a "luxury" compared to the substrate they usually work with, says Yates. The fine material was recovered from the tailing piles; the chips from fire-killed trees processed by the California Department of Transportation.

"Next spring we'll come back and it will be all green and fuzzy," says Scribner. "That's the neat thing about our projects; over time, it's getting harder and harder to tell what it used to look like."



From the Center for Biological Diversity:

Conservation and environmental justice groups filed a legal challenge today to the largest reservoir project approved in California in decades. The Sites Reservoir would harm the Sacramento River ecosystem, threaten already imperiled fish species, and release greenhouse gas pollution, today's lawsuit says.

Sites would require the construction of several enormous dams and two 3,000-foot-long and 23-foot-wide tunnels. It will cost an estimated \$4.4 billion.

Proposed for a rural area about 80 miles northwest of Sacramento, the project would store about 1.5 million acre-feet of water, or nearly 490 billion gallons. To achieve this capacity, the reservoir would divert large quantities of water from the Sacramento River system, which is home to federally protected salmon and steelhead.

Most runs of Sacramento River salmon are imperiled and all are declining. Sites would reduce flows in the Sacramento River when salmon are migrating.

"The Sites Reservoir project will cause much environmental harm, which falls on the public, and a small amount of good, which primarily benefits the project investors," said Ron Stork, senior policy advocate at Friends of the River. "Among other harms, the reservoir will be a major greenhouse gas emitter. A recent analysis estimated that Sites would emit the equivalent of 80,000 gasoline-powered cars each year."

The lawsuit was filed in Yolo County Superior Court by Friends of the River, the Center for Biological Diversity, the California Sportfishing Protection Alliance, the California Water Impact Network and Save California Salmon. The suit challenges the Sites Project Authority, a state joint powers authority, for violating the California Environmental Quality Act in approving the reservoir.

"Diverting too much water will never solve the problem of giving away too much water," said Chris Shutes, executive director of the California Sportfishing Protection Alliance. "But the only alternatives the Sites environmental report looked at were different ways to divert more water. To make a bad idea worse, the Sites report low-balled the required flow in the Sacramento River because a flow that protects fish would make the reservoir too expensive to build."

The Sites Reservoir project aims to capture large volumes of floodwaters from major storms and store them as a buffer against drought. But despite its expense and environmental harms, it will provide only a small water-supply benefit, increasing the state's storage capacity by about 3.5%.

"It's very difficult to justify the expense and environmental costs of big surface storage infrastructure projects, and the Sites Reservoir will cause far more harm than good," said John Buse, an attorney at the Center for Biological Diversity. "Water storage undoubtedly provides some benefit, but we should be looking at cheaper alternatives that do more for people, rivers and fish."

Water evaporation from surface reservoirs can result in significant water loss, an effect that will only worsen with California's warming climate. Surface storage projects can also contribute to climate change by releasing methane, a potent greenhouse gas. Surface reservoirs can also impair water quality because the

warmer water they impound can contribute to toxic algal blooms, which will also worsen with climate change.

"Sites is a very expensive boondoggle that is likely to produce toxic water," said Carolee Krieger, executive director of the California Water Impact Network. "Do we really want another Kesterson? It's not cost effective to throw money at a problem for such questionable and minimal actual water benefit."

"Sites will perpetuate California's antiquated and inequitable water distribution system to the detriment of Northern California Tribes, salmon and water quality," said Regina Chichizola, executive director of Save California Salmon, a Tribally-led environmental justice organization. "It will promote the concentration of water and power in the hands of the few, and ignores Tribal rights and consultation. We have no choice but to challenge it in court."

The groups are represented by the Law Office of Donald B. Mooney.

The Center for Biological Diversity is a national, nonprofit conservation organization with more than 1.7 million members and online activists dedicated to the protection of endangered species and wild places.

LOCO STAFF

OPINION: It's Time for the Offshore Wind Industry to Commit to Community Investments
The following opinion column was submitted by Lonyx Landry, a Humboldt County planning commissioner and a leader of CORE Hub. —Ed.

Offshore wind development in Humboldt County has the potential to revolutionize our economy and materially improve the well-being of our communities. But it's not that simple. As a member of the Nor Rel Muk Wintu Nation, a Cal Poly Humboldt educator, and a leader in the Redwood Region Climate and Community Resilience Hub (CORE Hub)'s Offshore Wind Community Benefits Network, I believe that Northern California renewable energy development *must* go hand in hand with investments in Tribal communities and industries such as aquaculture and mariculture; and that it requires strong community benefits like workforce development, education, healthcare and housing.

In 2024, developers like Crowley and local and state governments will be working together to solidify multi-million dollar offshore wind deals and projects, and will need to ensure that communities are not left out of the conversation.

Nurturing a just future in Humboldt County means that those who seek to profit from offshore wind development need to codify their promises to our community in legally binding agreements. In Humboldt, we have a history of extractive industries taking advantage of our rich supply of natural resources. In the 1800s and 1900s, our county served as an epicenter for the Gold Rush and logging, the negative effects of which can still be seen today. Former mill sites continue to threaten the drinking water of our 88,000 Humboldt County residents. We consistently rank as one of the five poorest counties in California, and our region has one of the highest rates of Missing and Murdered Indigenous Peoples (MMIP) in the nation.

Tribal communities in Humboldt, especially, have endured the brunt of environmental degradation, resource exploitation, and social inequity. Our lands have been taken and our natural resources destroyed, our culture outlawed, and our voices marginalized.

Offshore wind development in Humboldt needs to flip the script by ensuring that our local communities reap the benefits of clean energy and economic development, without causing more harm. A Community Benefits Agreement is one accountable way to ensure a truly equitable clean energy transition.

An established community agreement can ensure workplace training and educational opportunities tailored to our communities' unique needs, creating good jobs that are accessible to Indigenous people as well as students and young people, and families living on low incomes and in rural, disconnected parts of Humboldt. Training and employment programs that prioritize historically oppressed communities, fair wages and safe working conditions, can help bridge economic disparities. Beyond construction and engineering jobs at the wind farms and the port in Humboldt Bay, there are also a wealth of possibilities for good-paying, career-path jobs in environmental science, air and water quality, and other fields. Offshore wind companies should design internships, research collaborations, and entry-level jobs to provide training and skills to local students and workers who have been historically excluded from these opportunities.

Legally-binding community agreements can also ensure that offshore wind projects respect the sacred sites and cultural heritage of Indigenous communities, including preserving and avoiding impacts to Tuluwat Island, which has been restored to the Wiyot Tribe after an egregiously painful history. Consulting with Native American people and respecting our input is a crucial step towards investing in our economic future in a way that protects our natural resources and respects our stewardship of the land. We need offshore wind companies to provide startup funding and to make space for dialogue and shared decision-making with Tribal and local communities, centering local science, lived experience and traditional ecological knowledge.

For the past two years, more than two dozen community advocates and stakeholders involved in the CORE Hub have developed community benefits terms including these workforce training and Indigenous stewardship proposals. We have also specified our needs for commitments and funding for our local fisheries, mariculture, and aquaculture industries, as

well as services like public transportation, outdoor recreation, childcare, and electrification and zero-emissions infrastructure. We've also detailed our need for safeguards to prevent MMIP, human trafficking, and sexual violence. The CORE Hub has discussed these community protective measures in depth with Crowley, Humboldt Harbor Commissioners and district staff, the Humboldt County Board of Supervisors, and state government agencies.

If offshore wind projects are to move forward in 2024, vague promises and verbal commitments to "help the community" are no longer enough. We need transparency and accountability from our government and corporate America. Community benefits can realistically protect Humboldt communities' rich and diverse cultural, natural, and human resources, as we host the first-ever offshore wind farms on the Pacific coast. In this new year, we will continue to fight for economic development that puts people, flora, and fauna before profits.

WIRED.COM
BEN GOLDFARB DEC 28, 2023 SCIENCE

Spying on Beavers From Space Could Help Save California

A group of scientists taught an algorithm to spot beaver ponds in satellite imagery, which has the potential to help drought-ridden areas like California bounce back.



PHOTO-ILLUSTRATION: JACQUI VANLIEW; GETTY IMAGES

For the first time in four centuries, it's good to be a beaver. Long persecuted for their pelts and reviled as pests, the dam-building rodents are today hailed by scientists as ecological saviors. Their ponds and wetlands store water in the face of drought, filter out pollutants, furnish habitat for endangered species, and fight wildfires. In California, *Castor canadensis* is so prized that the state recently committed millions to its restoration.

While beavers' benefits are indisputable, however, our knowledge remains riddled with gaps. We don't know how many are out there, or which direction their populations are trending, or which watersheds most desperately need a beaver infusion. Few states have systematically surveyed them; moreover, many beaver ponds are tucked into remote streams far from human settlements, where they're near-impossible to count. "There's so much we don't understand about beavers, in part because we don't have a baseline of where they are," says Emily Fairfax, a beaver researcher at the University of Minnesota.

But that's starting to change. Over the past several years, a team of beaver scientists and Google engineers have been teaching an algorithm to spot the rodents' infrastructure on satellite images. Their creation has the potential to transform our understanding of these paddle-tailed engineers—and help climate-stressed states like California aid their comeback. And while the model hasn't yet gone public, researchers are already salivating over its potential. "All of our efforts in the state should be taking advantage of this powerful mapping tool," says Kristen Wilson, the lead forest scientist at the conservation organization the Nature Conservancy. "It's really exciting."

The beaver-mapping model is the brainchild of Eddie Corwin, a former member of Google's real-estate sustainability group. Around 2018, Corwin began to contemplate how his company might become a better steward of water, particularly the many coastal creeks that run past its Bay Area offices. In the course of his research, Corwin read *Water: A Natural History*, by an author aptly named Alice Outwater. One chapter dealt with beavers, whose bountiful wetlands, Outwater wrote, "can hold millions of gallons of water" and "reduce flooding and erosion downstream." Corwin, captivated, devoured other beaver books and articles, and soon started proselytizing to his friend Dan Ackerstein, a sustainability consultant who works with Google. "We both fell in love with beavers," Corwin says.

Corwin's beaver obsession met a receptive corporate culture. Google's employees are famously encouraged to devote time to passion projects, the policy that produced Gmail; Corwin decided his passion was beavers. But how best to assist the buck-toothed architects? Corwin knew that beaver infrastructure—their sinuous dams, sprawling ponds, and spidery canals—is often so epic it can be seen from space. In 2010, a Canadian researcher discovered the world's longest beaver dam, a stick-and-mud bulwark that stretches more than a half-mile across an Alberta park, by perusing Google Earth. Corwin and Ackerstein began to wonder whether they could contribute to beaver research by training a machine-learning algorithm to automatically detect beaver dams and ponds on satellite imagery—not one by one, but thousands at a time, across the surface of an entire state.

critters were such talented firefighters that she'd half-jokingly proposed that the US Forest Service change its mammal mascot—farewell, Smoky Bear, and hello, Smoky Beaver.

Fairfax was enthusiastic about the pond-mapping idea. She and her students already used Google Earth to find beaver dams to study within burned areas. But it was a laborious process, one that demanded endless hours of tracing alpine streams across screens in search of the bulbous signature of a beaver pond. An automated beaver-finding tool, she says, could “increase the number of fires I can analyze by an order of magnitude.”

With Fairfax's blessing, Corwin, Ackerstein, and a team of programmers set about creating their model. The task, they decided, was best suited to a convolutional neural network, a type of algorithm that essentially tries to figure out whether a given chunk of geospatial data includes a particular object—whether a stretch of mountain stream contains a beaver dam, say. Fairfax and some obliging beaverologists from Utah State University submitted thousands of coordinates for confirmed dams, ponds, and canals, which the Googlers matched up with their own high-resolution images to teach the model to recognize the distinctive appearance of beaverworks. The team also fed the algorithm negative data—images of beaverless streams and wetlands—so that it would know what it *wasn't* looking for. They dubbed their model the Earth Engine Automated Geospatial Elements Recognition, or EEAGER—yes, as in “eager beaver.”

Training EEAGER to pick out beaver ponds wasn't easy. The American West was rife with human-built features that seemed practically designed to fool a beaver-seeking model. Curving roads reminded EEAGER of winding dams; the edges of man-made reservoirs registered as beaver-built ponds. Most confounding, weirdly, were neighborhood cul-de-sacs, whose asphalt circles, surrounded by gray strips of sidewalk, bore an uncanny resemblance to a beaver pond fringed by a dam. “I don't think anybody anticipated that suburban America was full of what a computer would think were beaver dams,” Ackerstein says.

As the researchers pumped more data into EEAGER, it got better at distinguishing beaver ponds from impostors. In May 2023, the Google team, along with beaver researchers Fairfax, Joe Wheaton, and Wally Macfarlane, published [a paper in the *Journal of Geophysical Research Biogeosciences*](#) demonstrating the model's efficacy. The group fed EEAGER more than 13,000 landscape images with beaver dams from seven western states, along with some 56,000 dam-less locations. The model categorized the landscape accurately—beaver dammed or not—98.5 percent of the time.

That statistic, granted, oversells EEAGER's perfection. The Google team opted to make the model fairly liberal, meaning that, when it predicts whether or not a pixel of satellite imagery contains a beaver dam, it's more likely to err on the side of spitting out a false positive. EEAGER still requires a human to check its answers, in other words—but it can dramatically expedite the work of scientists like Fairfax by pointing them to thousands of probable beaver sites.

“We're not going to replace the expertise of biologists,” Ackerstein says. “But the model's success is making human identification much more efficient.”

According to Fairfax, EEAGER's use cases are many. The model could be used to estimate beaver numbers, monitor population trends, and calculate beaver-provided ecosystem services like water storage and fire prevention. It could help states figure out where to reintroduce beavers, where to target stream and wetland restoration, and where to create conservation areas. It could allow researchers to track beavers' spread in the Arctic as the rodents move north with climate change; or their movements in South America, where beavers were introduced in the 1940s and have since proliferated. “We literally cannot handle all the requests we're getting,” says Fairfax, who serves as EEAGER's scientific adviser. The algorithm's most promising application might be in California. The Golden State has a tortured relationship with beavers: For decades, the state generally denied that the species was native, the byproduct of an industrial-scale fur trade that wiped beavers from the West Coast before biologists could properly survey them. Although recent historical research proved that beavers belong virtually everywhere in California, many water managers and farmers still perceive them as nuisances, and frequently have them killed for plugging up road culverts and meddling with irrigation infrastructure. Yet those deeply entrenched attitudes are changing. After all, no state is in more dire need of beavers' water-storage services than flammable, drought-stricken, flood-prone California. In recent years, thanks to tireless lobbying by a campaign called Bring Back the Beaver, the California Department of Fish and Wildlife has begun to overhaul its outdated beaver policies. In 2022, the state budgeted more than \$1.5 million for beaver restoration, and announced it would hire five scientists to study and support the

rodents. It also revised its official approach to beaver conflict to prioritize coexistence over lethal trapping. And, this fall, the wildlife department relocated a family of seven beavers onto the ancestral lands of the Mountain Maidu people—the state's first beaver release in almost 75 years.

It's only appropriate, then, that California is where EEAGER is going to get its first major test. The Nature Conservancy and Google plan to run the model across the state sometime in 2024, a comprehensive search for every last beaver dam and pond. That should give the state's wildlife department a good sense of where its beavers are living, roughly how many it has, and where it could use more. The model will also provide California with solid baseline data against which it can compare future populations, to see whether its new policies are helping beavers recover. "When you have imagery that's repeated frequently, that gives you the opportunity to understand change through time," says the Conservancy's Kristen Wilson.

What's next for EEAGER after its California trial? The main thing, Ackerstein says, is to train it to identify beaverworks in new places. (Although beaver dams and ponds present as fairly similar in every state, the model also relies on context clues from the surrounding landscape, and a sagebrush plateau in Wyoming looks very different from a deciduous forest in Massachusetts.) The team also has to figure out EEAGER's long-term fate: Will it remain a tool hosted by Google? Spin off into a stand-alone product? Become a service operated by a university or nonprofit?

"That's the challenge for the future—how do we make this more universally accessible and usable?" Corwin says. The beaver revolution may not be televised, but it will definitely be documented by satellite.

SFgate.com

NEWS|BAY AREA & STATE

Beavers released into California wild for the first time in 75 years

By Amanda Bartlett Dec 28, 2023

The little buck-toothed critter warily peered out of his kennel perched at the edge of a pond in Northern California, his beady eyes following five of his family members that were already paddling out toward the pine trees dotting the horizon.

The water glistened in the October sun as the willows rustled in the breeze. A group of wildlife officials and conservationists watched from the shore as the colony of beavers began to explore their new home in Tásmam Koyóm, a 2,325-acre valley in Plumas County and the ancestral lands of the Mountain Maidu people. Unbeknownst to the 2-month-old kit, a historic moment was underway for his keystone species — the first time they had been returned to their native state habitat in nearly 75 years, as part of a major project spearheaded by the California Department of Fish and Wildlife and the Maidu Summit Consortium. Nevertheless, he stayed put.

The beaver's protective mother remained right by his side, but eventually even her curiosity got the best of her, and she took off, too. Valerie Cook, the beaver restoration program manager for the CDFW, slipped on a pair of gloves and carefully removed the young beaver from his enclosure and into the grass, hoping to coax him to join the rest of his family. When he wouldn't even leave the top of her rubber boot, she grinned down at him.

"I knew what he was doing," said Cook. "He was waiting for someone to give them a ride on their tail." Sure enough, one of the beaver's siblings returned, hoisted the baby onto its back, and off they went into the wild. Cook explained that this dogpile behavior isn't atypical for the species, and sometimes she'll see as many as three at a time stacked on top of one another, an activity that likely offers security to some of the younger animals in the colony.

"You just saw this tiny brown furball, this little nugget, catch a ride on the back of his sibling's tail, and it looked like he was surfing," Cook said with a laugh. "I don't think it set in for days afterward, but that moment will go down as one of the highlights of my entire career. I think we were very proud of what we had done, and really optimistic about the potential that this represents for us and the good we think we can do moving forward."

Beavers are native to Northern California, but their population was practically decimated during the fur rush in the 1800s, when maritime traders converged in the Bay Area and California's Central Coast to harvest the valuable, chestnut-colored fur from the species, as well as otters, seals, mink and other mammals. By 1912, fewer than a thousand beavers lived in California.

Research from historical ecologist Rick Lanman proved the species' California roots when he discovered a skull from a beaver that had been living in Saratoga Creek circa 1855. California Department of Fish and Wildlife translocated beavers to Lexington Reservoir and upper Los Gatos Creek in 1980, and though experts initially thought the semi-aquatic rodents wouldn't utilize the surrounding creeks, they proceeded to chart new territory down to the Guadalupe River, which flows through downtown San Jose and into the South Bay. The animals continued to venture northward from there, and the discovery of beavers in Matadero Creek last year marked a major comeback for the species in the Bay Area.

Meanwhile, the CDFW received nearly \$2 million in funding from the state budget to build upon its existing beaver restoration program, hiring a team of environmental scientists who are tasked with determining nonlethal strategies for people and beavers to coexist, and ultimately promoting a larger effort to help mitigate the impacts of wildfires, climate change and drought by allowing beavers to repopulate the habitats where their ancestors once resided. Releasing beavers into Tásmam Koyóm is the first phase of this project following a lot of contention surrounding the species.

"Over the last hundred years, there's been a roller coaster surrounding how they should be managed," said Cook, who is also the nutria eradication program manager for the CDFW, "as a nuisance or as a resource." Because beavers don't reproduce prolifically like other rodents (they tend to have one to two litters of just a few young per year) and juveniles typically have a 45% survival rate, Cook said allowing them to disperse and reestablish their territory can be a lengthy and challenging process. Human-wildlife conflict arises, and when

people don't like the impacts to the landscape that beavers can cause, like minor flooding and tree damage, the animals have to be removed, Cook said.

But at the same time, Cook said, many government agencies statewide are spending hundreds of thousands to millions of dollars a year just to mimic what beavers naturally do to restore the natural ecosystems they live in. The animals are capable of reconnecting streams to floodplains and can help recover near-extinct species like coho salmon by creating new wetland habitats and encouraging the growth of the plankton and insects they feed on. Beaver dams can also slow down water flow and improve water quality by preserving sediment and nutrients in streams.

"This program will allow us to play a more active role to return them to where they were historically, and it's a twofold process," said Cook. "We're restoring them so they can do their job restoring the environment they live in."

Beyond the ecological benefits, Cook underlined the importance of collaborating with the Maidu Summit Consortium and restoring a species that's so important to the Maidu's cultural history.

"They're our little cousins, and we're going to pray for them to be safe and have a good life here in this beautiful environment," said Allen Lowry, vice chairman of the Maidu Summit Consortium. "We're so happy to be able to release them here, and we pray that they make a good home forever here."

This family of seven beavers was relocated from Sutter County and now joins a single beaver that had already been living in Tásmam Koyóm. Cook hopes these efforts will expand as the CDFW works with the Tule River Tribe to reintroduce another beaver family to the Tule River Reservation in the southern Sierra Nevada by next year.

"The unfortunate reality down there is with all the high flows and flooding that happened in the spring of last year, the habitat they had ready just ended up really getting blown out, delaying the trajectory of the project," Cook said. "But it presents a real opportunity for beavers to come in and foster those changes the tribe is looking for."

Future projects could be headed for the Bay Area soon. Cook said there's a lot of interest in the North Bay, particularly Lagunitas Creek in Marin County, which is home to a precarious population of endangered coho salmon. The CDFW hopes to have a beaver translocation project proposal submission form available on its website by late January for landowners to submit requests, but how the department prioritizes each project that gets approved will be determined by issues such as drought resiliency, high risk for wildfires, low flows and dry conditions in each area.

"Basically, we're looking at what's the most bang for our beaver buck we can get," Cook said. "One hundred percent, it's going to happen in the Bay Area, but when and where yet, we don't know."

Since the Oct. 18 release, the beaver family group in Tásmam Koyóm has explored miles and miles of habitat, located the territory of the resident beaver, which could lead to mating opportunities in the future, and established shelter for the winter. The CDFW and Maidu Summit Consortium will continue to monitor the colony for several years to come, assessing whether the population grows, how the habitat is utilized, and what benefits, conflicts and changes may arise as a result of the beaver engineering on the landscape, a news release from the CDFW read.

"I got a little choked up and teary-eyed," Chuck Bonham, director of the California Department of Fish and Wildlife, said of the animals' release. "I saw the beavers come into the water, and some swim off. About 20 minutes later, they're out there making a home. This could be forever, and it's the right thing to do."

LA TIMES

CALIFORNIA

Dramatic before-and-after images show how much water California reservoirs have accumulated



Enterprise Bridge at Lake Oroville in Butte County, Calif. On Dec. 14, the water storage was 2,324,550 acre-feet, 66% of total capacity.

(Xavier Mascarenas / California Department of Water Resources)



BY TERRY CASTLEMAN
STAFF WRITER FOLLOW
DEC. 29, 2023 3 AM PT

With the winter storm season ramping up, rainfall across the state has begun to refill reservoirs. By Tuesday, water reservoirs were at about 64% capacity, well above the 30-year average of 55% for the month of December.

After last year's historically wet winter, many of California's largest water stores were at or near capacity during the summer months of 2023.

But over the last six months, the state has used up some of its stored water. The two largest reservoirs, Lake Oroville and Lake Shasta, dropped from nearly full in June 2023 to around two-thirds full by Christmas.

Still, the reservoirs are now in much better shape than they were in December 2022. The images below from the California Department of Water Resources show Lake Oroville at the West Branch Feather River Bridge in December 2022 and December 2023.

The series of atmospheric rivers that drenched the state in late 2022 and early 2023 revived California's water storage.

With another potentially wet winter ahead, reservoirs could be full once more. Experts have projected a warm, wet El Niño winter.

But despite several recent storms, another key metric of water storage is well below historical levels.

The state's snowpack was at just 29% of normal on Dec. 28, according to DWR data.

The photos below from Enterprise Bridge on Lake Oroville show the amount of water more than doubling from December 2022 to December 2023. The levels, which had dropped to about one quarter of capacity last year before filling up entirely by summer 2023, are now at around two-thirds full.

Even with last year's wet winter and the downpours that have begun this year's storm season, California's groundwater remains depleted and could take much longer to be replenished.

The New Your Times

UNCHARTED WATERS**Strawberry Case Study: What if Farmers Had to Pay for Water?**

With aquifers nationwide in dangerous decline, one part of California has tried essentially taxing groundwater. New research shows it's working.



Coral Davenport reported in the Pajaro Valley, meeting farmers, regulators and C.E.O.s and visiting oceanfront strawberry fields. Photographs by Nathan Weyland.

Dec. 29, 2023

The strawberry, blackberry and raspberry fields of the Pajaro Valley stretch for 10 miles along the coast of California's Monterey Bay, jeweled with fruit from April through early December. The valley's 30,000 acres of farmland are also ruffled with emerald lettuces, brussels sprouts and varieties of kale, bringing in roughly \$1 billion in revenue to the region each year. All that abundance doesn't come cheap.

While American farmers elsewhere have watered their crops by freely pumping the groundwater beneath their land, growers in Pajaro must pay hefty fees for irrigation water — making it one of the most expensive places to grow food in the country, if not the world. The cost: Up to \$400 per acre-foot, a standard measurement equal to water covering one acre, one foot deep. The fees bring in \$12 million a year, which is used to recycle, restore and conserve the region's groundwater.

The Pajaro Valley's unusual system — essentially a tax on water — was born of a berry-growing disaster some 40 years ago that forced farmers to act. Today, as the nation faces a spreading crisis of dwindling groundwater, stemming from a combination of climate change, agricultural overpumping and other issues, some experts say the Pajaro Valley is a case study in how to save the vital resource.

"What they are doing is cutting edge," said Felicia Marcus, a former chair of the California State Water Resources Control Board and now a fellow at Stanford University's Water in the West Program. While a few other regions have imposed fees on groundwater for farming, Pajaro Valley has been one of the most aggressive and effective. "They are way ahead of the curve," she said.

Experts from as far away as China and Egypt are traveling to the valley to study the system. But replicating it elsewhere could face major challenges. For one thing, "People don't like taxes," said Nicholas Brozovic, an agricultural economist at the University of Nebraska. "There's nothing mysterious about that."

New research on the program revealed a direct connection between paying for the groundwater and conserving it: A 20 percent increase in the price of groundwater has resulted in a 20 percent decrease in the extraction of groundwater.



Water can't be free anywhere," said Soren Bjorn of Driscoll's, the berry giant.



Driscoll's headquarters in the heart of California berry country.

One reason experts see Pajaro as a model: Despite the high price of water, agriculture in the region is thriving. It is the headquarters of major brands, including Driscoll's, the world's largest berry supplier, and Martinelli's, which grows most of the apples for its sparkling cider in the Pajaro Valley.

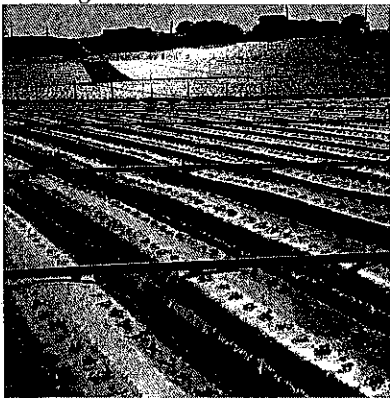
Soren Bjorn, a senior executive at Driscoll's who in January will become the chief executive, said in an interview that he "absolutely" sees the region as a model of water pricing that could be replicated in water-stressed regions from Texas to Portugal. "Water can't be free anywhere, because you can't run a sustainable water supply without pricing it," he said. "That would apply to the globe."

Yet, if the Pajaro Valley experiment were to be replicated across the country, it could trigger changes across the economy that affect both farmers and shoppers, resulting in higher prices at the grocery store while forcing farmers to abandon low-cost commodity crops that are needed for animal feed and other purposes, such as textiles.

While corporate growers of premium products like berries, which are shipped to the shelves of major chains like Whole Foods, Safeway and Trader Joe's, can absorb the price of Pajaro's water, there is no way farmers of commodity crops like cotton, alfalfa and soybeans can make the economics work, said David Sanford, the agricultural commissioner of the Santa Cruz County, which includes the Pajaro Valley.

In the years since the price on water was imposed, growers of those crops either shifted to high-priced berries and lettuces, or simply left the region for cheaper pastures.

"There's a big public-policy argument for pricing groundwater," said Louis Preonas, an agricultural economist at the University of Maryland. "But if you were to try something this across the country, it would mean farmers would shift away from growing crops like corn, or leave agriculture altogether. Any way you cut it, it would likely raise food prices. But the alternative is running out of water."



Decades ago, overpumping began imperiling Pajaro Valley farms. A strawberry field recently.

A New York Times investigation this year found that many of the aquifers that supply 90 percent of the nation's drinking-water systems are being severely depleted by a combination of climate change and overpumping by farmers, industrial users, cities and others.

For many of the nation's farming regions, the day of reckoning with the loss of groundwater is fast approaching. In the Pajaro Valley, it came 40 years ago.

With its loamy, sandy soil and cool nighttime breezes, the Monterey coast is an ideal climate for strawberries. But in the 1980s, disaster struck. Growers over pumped the coastal groundwater, allowing saltwater from the Pacific Ocean to seep in below their fields, up through the roots of the berry crop.

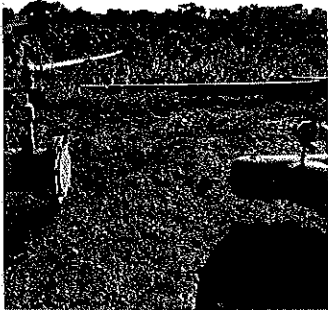
"You could see the yellow leaves, the discoloration, the stunted growth," recalled Dick Peixoto, whose family has farmed here since 1920.

Faced with an economic disaster, Mr. Peixoto and other growers formed a local water agency with two goals: preserve the groundwater and prevent the state from taking control.

The Pajaro Valley Water Management Agency, still locally run today, got to work. Its first project was installing meters to measure how much groundwater growers were using. In 1993, it started charging farmers a modest fee of \$30 per acre-foot to cover the cost of managing and reading the meters.



Dick Peixoto: "You could see the yellow leaves, the discoloration."



A well pipe capped years ago to stop saltwater intrusion.

The water agency hired hydrologists and other consultants, who concluded that the aquifer was severely overdrawn and could be lost entirely to saltwater. In response the agency built a \$6 million project to capture and divert excess rainwater from a creek near the ocean and pump it into a storage basin, where it percolates into underground wells and is eventually used for irrigation.

Next came a \$20 million water recycling plant, which cleans approximately five million gallons of sewage each day and sends it through a network of purple pipes to farm fields. The purple signals that the water inside is recycled.

Now the agency is building an \$80 million system to capture and store more rainwater to be used for irrigation. Some of the cost the agency's projects has been covered by federal grants and loans, with the rest from the groundwater pricing system, said Brian Lockwood, who has been the general manager of the Pajaro Valley Water Management Agency for 18 years.

"These projects are millions of dollars, and without this source of revenue they could never come to be," he said.

As the ambitions of the water agency increased, so did the price of the water. It is scheduled to reach \$500 per acre-foot by 2025.

In the early years, farmers chafed under the rate increases. "The pricing was really difficult, when the water used to be, you know, free," said Thomas Broz, who has farmed about 75 acres in Pajaro since 1996.

Eventually, a group of growers challenged the water agency in court and were able to drive down the prices for a few years, and even forced the agency to refund about \$12 million to farmers between 2008 and 2011.



A new reservoir to capture rainwater.

But then, from 2012 to 2017, California was struck by its worst drought in recorded history, parching farmland and devastating the rural economy. Growers across the state, particularly in the Central Valley, reached a deal with the state to sharply restrict their water use and fallow their fields.

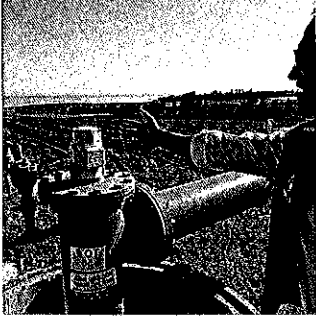
In the Pajaro Valley, water became more expensive, but at least it was still flowing. To save money many Pajaro farmers invested in precision irrigation technology to distribute carefully measured water exactly where it was needed. Gone were the days of sprinklers that drenched fields indiscriminately.

In the midst of the drought, the then-governor of California, Jerry Brown, signed a law requiring every part of the state to devise a plan to conserve groundwater. Miles Reiter, the outgoing chief executive of Driscoll's, spoke in support of the law.

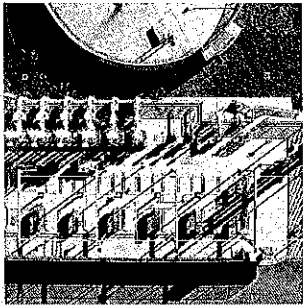
Suddenly, Pajaro was a model.

"Now, we're seen as these pioneers who showed the way," said Mr. Lockwood. "We get calls from all over the state. How did you get this going? How do you get the growers to agree to it?" He partly credits local control of the resources, saying, "This is better than the county or the state coming and taking control. And by now, this is something that's solid, it's been tried, it's survived lawsuits."

The last time the agency raised rates, in 2021, there was almost no resistance from growers, said Amy Newell, who chairs the Pajaro Valley Water Management Agency Board of Directors.



Brian Lockwood: "We're seen as these pioneers who showed the way."



The Pajaro Valley water treatment center.

Mr. Broz, who paid \$20,000 last year for water, said he has come around to accepting the system.

"The farmer has very little flexibility to build in the cost of water, so it means we have to price it into our product — it means we basically can't be as competitive," said Mr. Broz, who grows lettuces, berries, apples, and other vegetables. "But the pricing has allowed us to put in place the kind of measures that will help us have a sustainable system for the long term, if we want to keep the resource."

In the central California valley's Westlands water district, where many farmers fought the groundwater-management law, the board of directors will soon vote on a plan that would allow growers to pay for credits to use groundwater above a certain allocation. They could buy and sell the credits, starting at about \$200 a credit. A handful of other water districts in California are implementing similar measures.

Many farmers worry about the beginning of such a trend.

"The concern is that any kind of pricing scheme or market based mechanism that tries to manage or distribute this resource is likely to privilege a certain kind of producer — a multinational corporation — at the expense of small-scale independent farmers," said Jordan Treakle, program coordinator for the National Family Farm Coalition.

And in some parts of the country, pricing groundwater could spell an end to current crops altogether. For example, some experts said that could be the case for producers of Texas cotton, a commodity crop that relies almost entirely on groundwater from the depleting Ogallala aquifer.

Mr. Bjorn of Driscoll's said Americans should be ready to face just that outcome.

"We can't get away with producing something for which the resources do not exist," he said. "We would be fooling ourselves to keep growing low-value crops in places in the desert."

"Overcoming the hump of the politics is the hardest part," Mr. Bjorn said. "After that it's just managing the resource."

San Francisco Estuary & Watershed Science: Science & Policy for the Delta DECEMBER 2023

Keeping Water in Climate-Changed Headwaters Longer

Michael Dettinger*¹, Anna Wilson¹, Garrett

Climate-change projections for California confidently describe a future with warmer temperatures, more evaporative demand, less snow, more rain, earlier and flashier runoff and streamflow, and drier summer conditions. The future of annual precipitation is much less certain, but a fairly unanimous projection of drier, more drought-prone conditions punctuated by occasional stronger-than-historical storms is almost as common among projections as is the warming itself. Rather than focusing on the less certain annual precipitation changes, we recommend more focus on keeping water in the headwaters longer. Doing so will involve reducing winter flood flows from headwater catchments, reducing the summer aridification (and wildfire risks) there, salvaging some groundwater recharge that would likely otherwise be lost, and overall, perpetuating headwater (and downstream) hydrologies under more historical and natural conditions. **CURRENT CLIMATE PROJECTIONS** Considering recent and current projections of what climate change will mean for California's water resources, the picture is grim. Warming will melt snows; expand areas that receive rainfall rather than snow; make storms and floods larger and **SFEWS** Volume 21 | Issue 4 | Article 1 <https://doi.org/10.15447/sfeWS.2023v21iss4art1>* Corresponding author: mddettinger@gmail.com ¹ Center for Western Weather and Water Extremes, Scripps Institution of Oceanography, University of California, San Diego La Jolla, CA 92093 USA

2 SAN FRANCISCO ESTUARY & WATERSHED SCIENCE VOLUME 21, ISSUE 4, ARTICLE 1 wilder; dry out soils, vegetation, springs, lakes, and streams; and set the stage for notably larger and more intense droughts and wildfires. At the same time, the average projection of future precipitation amounts (over the past several generations of projections) has largely hovered near historical norms, except in the southern ramparts of California, Arizona, and New Mexico, where most projections agree it will be drier. One climate model projects more precipitation overall, another projects less; and this pattern repeats through the modern collections of projections (e.g., Dettinger 2005, 2016; Gershunov et al. 2019). Similarly, multi-model averages predict somewhat wetter conditions in one generation and drier conditions in the next generation (as found by comparisons between projections used in the Second through Fifth National Climate Assessments (Karl et al. 2009; Melillo et al. 2014; Wuebbles et al. 2017; Crimmins et al. 2023). Among the growing number of models from which projections are available, the predicted precipitation changes are small—fractionally wetter overall, or drier overall, but not vastly so in either direction. This equivocation is a source of consternation for climatologists and for those who manage water—and land—across the region. How can they plan and manage if the overall water availability from precipitation cannot be pinned down more definitely than this? The tendency for precipitation projections to cluster with uncertainty around historical norms too often draws attention away from an important and common outcome in the projections. What the models agree on is that future precipitation will come in the form of reduced medium- to light-precipitation amounts (e.g., Dettinger 2016; Polade et al. 2017), and more dry days (Polade et al. 2014), all interrupted by occasional wetter-than-historical major storms and storm sequences (Dettinger et al. 2004; Pierce et al. 2013; Gershunov et al. 2019). Under these conditions—and together with trends away from snowfall and toward more rainfall—immediate surface runoff from those large storms is expected to increase, and the amount of water that makes its way down into slower, subsurface pathways will likely decline. In fact, climate models are nearly as unanimous in projecting increased large storms amid a background of more persistent and taxing dryness as they are in projecting a warmer future (Pierce et al. 2013; Polade et al. 2014; Dettinger 2016). The consistency in these predictions seems sufficient to guide policy. **AN APPEAL TO CALIFORNIA WATER AGENCIES AND INSTITUTIONS** The lesson to be taken from modern projections of future precipitation and hydrology is that we should probably not fixate on the continuing uncertainty about precisely which direction precipitation totals will skew. Instead, we must focus on the high likelihood that amounts of precipitation will change far less than the way that precipitation arrives; thus, we must prepare for a future of a few, much larger storms and—if left unmitigated—enhanced spikes of runoff in the winter and spring, rather than the long-term moderate flows in the warm seasons we have historically incorporated into water-resources planning. Considering this, the most pressing challenge posed by climate change in western

3<https://doi.org/10.15447/sfews.2023v21iss4art1> DECEMBER 2023 headwaters can be more narrowly bounded. Instead of the challenge being “How can we prepare for a lot less water?” we can shift the focus to address the most immediate challenge, which is “How can we keep the water that arrives in the headwaters longer?” This essay is an appeal to California water agencies and institutions to consider applying additional adaptation strategies to retain water in the headwaters longer so that the challenges posed by changing climate and hydrologies that negatively affect the state’s future water supplies and flood-risk management can be partially mitigated. Headwaters provide many benefits. Surface water is critical for people, flora and fauna, and wildfire reduction (Gies 2022). Subsurface water is vital for forest health and even more widespread wildfire reduction (Gies 2022). Benefits downstream also will be crucial. Most western water supplies—including most major western reservoirs—have been developed based on historical expectations that much water will arrive well after the cold, wet season as spring and summer snowmelt, or that groundwater will always be available during drought. Keeping water in the headwaters longer can restore, in part, the important delays that historical snowpacks provided. Ensuring that more precipitation gets deep into subsurface pathways is probably one (albeit small) way of adding to future groundwater supplies. Of course, it is easy to say, “We need to keep water in the headwaters longer.” Actually doing so will undoubtedly be more complicated. Our purpose here is to shift focus from dire precipitation projections to mitigating mostly warming-induced headwater changes at watershed scales, and on intra-seasonal to event scales. A number of possible mitigating responses are already in the works in California for other reasons. Each of the following possibilities, along with others¹, could be evaluated, accelerated, or transformed to address climate-change effects on the state’s headwaters. Here, we discuss several examples: (1) an increased emphasis on soils and percolation management as a priority and co-benefit in forest-health restoration activities; (2) beaver-population restoration or proliferation of beaver-inspired headwater infrastructures; and (3) upstream-focused, forecast-informed reservoir-operation (FIRO) strategies. **EXAMPLE STRATEGY 1: SOILS AND PERCOLATION MANAGEMENT** As discussed, approximately the same amount of precipitation is deposited in the headwaters in most climate projections. It just leaves the basin earlier, by way of more evaporation and floods, and in less convenient forms at less convenient times. In response, we need to consider and explore landscape and soil-surface treatments that encourage snowmelt, precipitation, and other accumulations of water to percolate into headwater soils. Because surface water is susceptible to evaporation from the headwaters, keeping the water in the headwaters longer¹. This essay reflects a narrower application of some of the issues and options for “slow water,” as Gies (2022) extensively addresses. This essay focuses on California’s water systems based solely on climate projections specific to California, taking into account the authors’ particular specializations and this journal’s core audience. We refer readers to Gies (2022) for a more comprehensive conversation.

4 **SAN FRANCISCO ESTUARY & WATERSHED SCIENCE** VOLUME 21, ISSUE 4, ARTICLE 1 involves getting the water below the surface to shield it from direct evaporation. Getting waters into soils faster and deeper also involves sending more of those waters into and along various subsurface pathways toward streams and springs. Subsurface flows are slower than surface runoff, so that, even though the water eventually makes its way into streams, it takes longer to reach them, thus keeping water in the headwaters longer. Soil-surface treatments should be designed and undertaken and ideally “piggy-backed” with the coming forest-health treatments to reduce 20th-Century accumulations of fuel caused by wildfire suppression. Forest-health treatments, such as thinning, restoration of natural fire regimes, and so on, will require large investments of effort and money in the next few decades to forestall the ongoing rise of mega-fires throughout much of the state². If soil-surface treatments can be designed to enhance interception and percolation of water, and then prioritized and layered within forest-health treatments—rather than treated as a coincidental benefit—then the scale of soil management needed to ensure that more precipitation and snowfall percolates deeper into subsurface soils of our headwaters seems more approachable. The resulting wetter soils also can contribute to forestalling or dampening wildfires. Such actions are needed specifically to mitigate impacts on snowpack storage and rising evaporative demands. Snowpacks have historically acted as natural reservoirs that carry water over from winter precipitation to emerge months later as snowmelt in time for summer uses. California’s spring snowpack typically contains amounts of water approximating three-quarters or more of the normal amount of water in its major man-made reservoirs. Much of California’s water infrastructure was designed to make use of the natural reservoirs that its historical snowpacks form and, in the face of climate warming, replacing the diminishing snowpack reservoirs could require an almost doubling of current man-made-reservoir capacities (with all the difficulties that would involve). The transition from snowfall to rainfall and the hastening of runoff from earlier snowmelt, will also contribute to more immediate runoff and increased floods. Later in the year, headwater soils, vegetation, and landscapes are projected to dry more because earlier snowmelt, a greater proportion of immediate rainfall runoff, and flashier storms accelerate runoff discharge from headwater catchments and ensure that waters will have long since exited before peak summer arrives (noted as early as Gleick 1987). Consequently, the more we can find ways to preserve or mimic the effects of historical snowpacks that keep more

winter precipitation in the headwaters for 1 to 3 months longer, the more we can reduce water-supply effects of those snowpack losses. Water that percolates into subsurface soils in the headwaters is not entirely protected from being returned to the atmosphere, of course. Trees and other 2. California may spend an estimated \$1.5 billion and the federal government another \$84 million per year on forest fuels management. See [https://resources.ca.gov/Newsroom/Page-Content/News-List/CA-Announces-\\$98-Million-In-Forest-Grants](https://resources.ca.gov/Newsroom/Page-Content/News-List/CA-Announces-$98-Million-In-Forest-Grants) and <https://www.ppic.org/blog/paying-for-forest-health-projects>

5 <https://doi.org/10.15447/sfews.2023v21iss4art1> DECEMBER 2023 vegetation tap into subsurface waters to meet large evapotranspiration demands. In addition, warming is expected to increase the atmosphere's evaporative demand (i.e., the atmosphere's "thirstiness," McEvoy et al. 2020), which would increase the rates and amounts of water that evaporates or is used by vegetation per unit of water in the headwater soils. Thus, other options for keeping waters in the headwaters longer are precisely those forest-health treatments (often forest thinning, McCann et al. 2020) mentioned earlier as a fiscal avenue to enable large-scale soil management. When forests are thinned, leaving fewer and more widely spaced trees and vegetation, there are effectively "fewer straws in the soda" so forest evapotranspiration can be reduced, and water remaining in the soils or making its way out to streams or into aquifers increases is increased (e.g., Guo et al. 2023). The task will be to ensure that forest-health treatments raise water percolation and storage benefits to the level of priorities rather than incidental outcomes.

EXAMPLE STRATEGY 2: BEAVERS Regarding our second (less heavily engineered) strategy: consider that in the not-too-distant past, beavers were a widespread and important way that nature "kept water in the headwaters longer" (Goldfarb 2018; Dittbrenner et al. 2022; Larsen et al. 2021). Beavers, historically prevalent in the western states, were major ecosystem engineers and stored water behind their dams in many headwaters. Their behaviors enhanced groundwater recharge, slowed or reduced floods, enhanced summer water supplies, and subdued wildfires (Goldfarb 2018). However, as early as the 1700s, mountaineers followed by settlers began to extirpate beavers, so that California's mountain basins and ecosystems are now quite different from (and drier in general) than their pre-development condition. Re-establishment of beaver populations could help keep water in the headwaters longer. Beavers are single-minded and persistent in damming moving water anywhere they find it, but when they encounter human structures (or plans contrary to theirs) significant problems can ensue. Thus, engineers have invested in artificial beaver structures in some settings to try to recreate some of the benefits of beavers without the more annoying downsides of their behaviors (Pollock et al. 2014; Pierce et al. 2021; Gies 2022). The California Department of Fish and Wildlife is already beginning to scale up either the presence of beavers (and other natural allies) or restore some of their benefits by other means (and for a variety of reasons)³. Climate change provides yet one more reason to accelerate such efforts.

EXAMPLE STRATEGY 3: FIRO (FORECAST-INFORMED RESERVOIR OPERATIONS) The third (and last) adaptation strategy we discuss here is a modification of reservoir operations to store more water in man-made reservoirs. One promising possibility is forecast-informed reservoir operations (FIRO; Jasperse et al. 2020). 3. <https://wildlife.ca.gov/Conservation/Mammals/Beaver>

6 **SAN FRANCISCO ESTUARY & WATERSHED SCIENCE** VOLUME 21, ISSUE 4, ARTICLE 1 FIRO uses modern weather and flood forecasts to make more and better decisions about when and how much water to release from existing reservoirs. FIRO offers opportunities for some reservoir operators to capitalize upon the combination of existing dams and infrastructure with modern forecast improvements—both already bought and paid for—to manage reservoir storage and releases to downstream users in ways that reduce downstream flood risks, or at least do not increase them at all. Capitalizing on these existing structures also allows more water to be stored longer in those reservoirs or recharged to aquifers (see Ralph et al. 2023), for later uses and environmental benefits. Recent studies in California have demonstrated that modern forecasts are already sufficiently accurate on time-scales of 5 or more days to allow more water to be stored safely in some reservoirs. Where FIRO is safer and more productive, traditional ways of increasing reservoir storage can be avoided, with considerable cost savings. More costly, traditional alternatives to FIRO include construction of entirely new dams, structural enhancements to existing dams, and dredging of some existing reservoirs to remove sediments that have partially filled the lakes since dam construction. All of these other options have major environmental limitations and costs. To date, most FIRO feasibility studies have focused on downstream dams and reservoirs (Jasperse et al. 2020; Ralph et al. 2023). Even Lake Mendocino on the Russian River (where recent FIRO investigations began), albeit high in that river basin, has no other downstream dam that prevent its releases from reaching the ocean. If the aim is to keep water in the headwaters, new visions of FIRO could be evaluated that are implemented and integrated among the smaller and more diverse dams and reservoirs in or just below the headwaters. Current FIRO studies for Lake Oroville are focused entirely on the major reservoir at the base of the Feather River basin (Ralph et al. 2022). By contrast, the Feather River basin above Lake Oroville is one of the more heavily "plumbed" basins in California with many smaller dams, reservoirs, and pipelines used mostly to optimize hydropower generation (Koczot et al. 2005). The American River basin above Folsom Dam and reservoir and the upper San Joaquin River basin above Millerton

Lake are other such basins that harbor many structures and options for managing headwaters' outflows to keep the water in them longer. Thus, rather than focusing FIRO investigations solely on the arrival and then releases of water that flow into the last reservoir before the waters leave source regions, additional strategies focused on upstream application of FIRO (U-FIRO) could be explored and tested for keeping water higher in the watersheds longer. BENEFITS OF NEW STRATEGIES Current projections of future precipitation in California and much of the western US—taken as a whole—are not the worst of the climate-change news. Rather,

7<https://doi.org/10.15447/sfews.2023v21iss4art1> DECEMBER 2023 climate warming and its myriad interlinked effects are considerably more certain and more problematic for many western headwaters, including California's. As presented here, more attention to the management and adaptation of California's headwaters at the state level could benefit California's overall climate-change-focused water resources planning. However, at present, the California Water Supply Strategy for adapting to a hotter, drier future does not include the words "headwater," "mountain," "meadow," or "forest"⁴. As California water agencies and institutions prepare their strategies and plans to secure the state's future water supplies and minimize flood risk, they would do well to consider how to keep water in the headwaters longer to mitigate inherent challenges posed by climate change. REFERENCES Crimmins AR, Avery CW, Easterling DR, Kunkel KE, Stewart BC, Maycock TK. 2023. Fifth National Climate Assessment. [Washington, DC]: US Global Change Research Program. Available from: <https://nca2023.globalchange.gov/downloads/Dettinger> MD. 2005. From climate-change spaghetti to climate-change distributions for 21st Century California: San Franc Estuary Watershed Sci [accessed 2003 Dec 17];3(1). <https://doi.org/10.15447/sfews.2005v3iss1art6> Dettinger MD. 2016. Historical and future relations between large storms and droughts in California. San Franc Estuary Watershed Sci [accessed 2003 Dec 17];14(2). <https://doi.org/10.15447/sfews.2015v14iss2art1> Dettinger MD, Cayan DR, Meyer MK, Jeton AE. 2004. Simulated hydrologic responses to climate variations and change in the Merced, Carson, and American river basins, Sierra Nevada, California, 1900–2099: Climatic Change [accessed 2003 Dec 17];62:283–317. Available from: <https://link.springer.com/article/10.1023/B:CLIM.0000013683.13346.4f> Dittbrenner BJ, Schilling JW, Torgersen CE, Lawler JJ. 2022. Relocated beaver can increase water storage and decrease stream temperature in headwater streams. Ecosphere [accessed 2022 Jul 22];13:e4168. [ht t ps://doi.org /10.1002/ecs2.4168](https://doi.org/10.1002/ecs2.4168) Gerhunov A, Shulgina T, Clemesha R, Guirguis K, Pierce D, Dettinger M, Lavers D, Cayan D, Polade S, Kalansky J, Ralph FM. 2019. Precipitation regimes change in western North America—the role of atmospheric rivers. Nature Sci Rep [accessed 2003 Dec 17];9:9944. [ht t ps://doi.org /10.1038/s41598-019-46169-w](https://doi.org/10.1038/s41598-019-46169-w) Gies E. 2022. Water always wins—thriving in an age of drought and deluge. [Chicago (IL)]: University of Chicago Press. 344 p. Available from: <https://press.uchicago.edu/ucp/books/book/chicago/W/bo161589950.html> Gleick PH. 1987. The development and testing of a water balance model for climate change impact assessment—modeling the Sacramento Basin. Water Resour Res [accessed 2003 Dec 17];23:1049–1061. [ht t ps://doi.org /10.1029/WR023i006p01049](https://doi.org/10.1029/WR023i006p01049) Goldfarb B. 2018. Eager—the surprising secret life of beavers and why they matter. [White River Junction (VT)]: Chelsea Green Publishing. 386 p. <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf>

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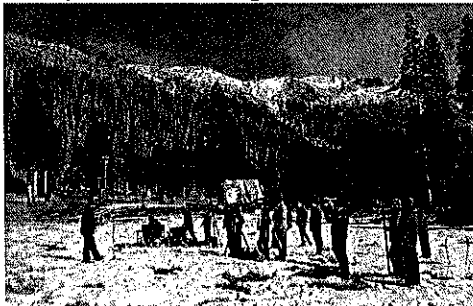
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So far the snow levels are lacking depth, with a number of bare spots in the meadow where the California Department of Water Resources conducts the first media snow survey of the 2024 season at Phillips Station in the Sierra Nevada. Statewide the snowpack is 25 percent of average, but significant snow is in the next seven day forecast for the Sierras. The survey is held approximately 90 miles east of Sacramento off Highway 50 in El Dorado County. Photo taken January 2, 2024. Fred Greaves / California Department of Water Resources

With Above Average Reservoir Levels, El Niño Conditions, and a Dry Start to the Water Year, California is Preparing for Flood or Dry Conditions in the Months Ahead

The Department of Water Resources (DWR) today conducted the first snow survey of the season at Phillips Station. The manual survey recorded 7.5 inches of snow depth and a snow water equivalent of 3 inches, which is 30 percent of average for this location. The snow water equivalent measures the amount of water contained in the snowpack and is a key component of DWR's water supply forecast. Statewide the snowpack is 25 percent of average for this date.



Sean de Guzman, Manager of the DWR's Snow Surveys and Water Supply Forecasting Unit conducting the first media snow survey of the 2024 season at Phillips Station in the Sierra Nevada. Fred Greaves / DWR

After one of the largest snowpacks on record last season, the start of this water year has been dry despite some recent storms in the last weeks of December that provided a small boost in the snowpack. While state reservoirs are still above average for this time of year and strong El Niño conditions are present in the Pacific Ocean, the outlook for the rest of the winter remains highly uncertain.

"California saw firsthand last year how historic drought conditions can quickly give way to unprecedented, dangerous flooding," said DWR Director Karla Nemeth. "Although El Niño does not guarantee an above average water year, California is preparing for the possibility of more extreme storms while increasing our climate resilience for the next drought."

DWR's electronic readings from 130 stations placed throughout the state indicate that the statewide snowpack's snow water equivalent is 2.5 inches, or 25 percent of average for this date, compared to 185 percent on this date last year.

"While we are glad the recent storms brought a small boost to the snowpack, the dry fall and below average conditions today shows how fast water conditions can change," said DWR's Snow Surveys and Water Supply Forecasting Unit Manager Sean de Guzman. "It's still far too early to say what kind of water year we will

have, and it will be important for Californians to pay attention to their forecasts and conserve water, rain or shine.”

Last year, California experienced climate whiplash when the driest three year-period on record ended with extreme storm events in January and March that caused damage and flooding across the state. These extreme weather events highlight the need for all Californians to prepare for flood risk. DWR is working with tribal, federal, state, and local partners to provide flood resources and training to communities across the state.

The State-Federal Flood Operations Center (FOC) has pre-positioned flood fight materials at more locations across the state and is starting this winter with more supplies on hand, including 2.2 million more sandbags. This fall, DWR coordinated pre-flood season meetings with emergency response agencies across the state and organized 38 flood-fight trainings for city, county, state and tribal agencies to prepare for possible local emergencies.

To prepare for flooding, all Californians should follow three basic steps:

- Be aware of your risk – know whether your home is downslope of a burn area or in a floodplain; pay attention to weather forecasts; listen to local authorities.
- Be prepared – always have an emergency evacuation kit ready; be prepared to evacuate early; have a plan for where you will go in an emergency.
- Take action – subscribe to your local emergency providers to get updated information. If local authorities issue an evacuation order, do not delay, follow local guidelines for evacuation and never attempt to drive through a flooded roadway.

One year ago, the January survey at the Phillips location showed a water content of 177 percent of average and was followed by a series of damaging atmospheric river storms in January and March that caused flood impacts across the state and produced one of the largest snowpacks on record.

In addition to deploying resources including over 1.9 million sandbags across the state last year, the FOC coordinated a joint state, federal and local response to snowmelt-driven flooding concerns and prepared for the historic snowmelt by providing hydraulic and hydrologic modeling and snowmelt forecasts that allowed agencies to deploy resources, reinforce levees and protect communities.

On average, the Sierra snowpack supplies about 30 percent of California’s water needs. Its natural ability to store water is why the Sierra snowpack is often referred to as California’s “frozen reservoir.” Data from these snow surveys and forecasts produced by DWR’s Snow Surveys and Water Supply Forecasting Unit are important factors in determining how DWR manages the state’s water resources. Due to last year’s above average conditions and historic snowpack, a total of 3.5 million acre-feet of water was captured in State Water Project (SWP) reservoirs. Lake Oroville, the SWP’s largest reservoir, is currently at 130 percent of average to date and state water managers are prepared to capture and store as much water as possible. DWR conducts five media-oriented snow surveys at Phillips Station each winter near the first of each month, January through April and, if necessary, May. The next survey is tentatively scheduled for **February 1**.

CORRESPONDENCE

John Friedenbach

From: noreply@selfgenca.com
Sent: Tuesday, December 19, 2023 11:01 AM
To: friedenbach@hbmwd.com
Cc: commercial.incentives@tesla.com
Subject: SGIP ICF Receipt, Humboldt Bay Municipal Water District [PGE-SGIP-2020-5008]



This is an automated system message from the SGIP Online Database.

12/19/23

Dear Brad Harbidge,

We are pleased to inform you that we have received your SGIP Incentive Claim Form (ICF) package for Project ID: PGE-SGIP-2020-5008 for Humboldt Bay Municipal Water District. Please see below for the reservation details.

Project ID: PGE-SGIP-2020-5008

Host Customer: Humboldt Bay Municipal Water District

7270 West End Rd.

Site Address: Arcata, CA 95521

For the account of Corporate Credit,

Payee Company Name: Inc/Generate Capital

Payee Name: Jeffrey Biehn

U.S Bank National Association TFM Escrow -

Lockbox

P.O. Box 860573

Payee Mailing Address: Minneapolis, MN 55486-0573

Equipment Type: Electrochemical Storage

Storage Capacity: 3944 kWh

Rated Capacity: 980.000 kW

Paired With:

Confirmed Incentive Amount: \$2,966,000.00

Next Steps:

- Pacific Gas and Electric will perform a detailed review of the ICF package within the next 10 business days to ensure all required documentation was submitted. Pacific Gas and Electric will contact you regarding any missing, incomplete, or invalid information, at which point you will have **30 business days** from the date of the request email to resolve any issues.
- Once your ICF documentation is complete your project will be submitted for technical review.

Questions?

Please feel free to contact us at Selfgen@pge.com should you have any questions. We appreciate the opportunity to serve you!

Sincerely,

The PG&E SGIP Processor Team

HBmWD Online Submission 12/28/23

Name:	Jackson Hand
Email Address:	jlhand@protonmail.com
Phone:	707-268-8786
Comments:	<p>Some of my neighbors and myself have long had concerns that Friends of the Dunes' removal of vegetation from the first 2 rows of dunes - the only 2 - between the ocean and the water line on the Stamps tract here in Manila put the water line in danger.. One stretch of the second row of dunes collapsed years ago, and, over the past six months, they have removed the vegetation from the foredunes and what is left of the second row of dunes for the entire stretch of the Stamps tract - at least a quarter mile. There is now nothing between the foredune and the water line on much of that stretch except a steep downhill grade sparsely covered with native ground cover vegetation - nothing with deep roots to hold the dune in place.. So, in other words, there is nothing between the ocean and the water line but the now-denuded foredune. Hearing tonight's National Weather Service warnings of "deadly" beach conditions with 33 feet waves (and the possibility of up to 40 feet) coinciding with the 7.5 foot high tide, full moon and the storm coming ashore, has left me feeling particularly uneasy. Those of us in the neighborhood have long discussed the possibility of the entire Samoa Peninsula being without running water for months as a result of their mismanagement of the dunes. The oncoming storms put those concerns in sharp focus. I have seen firsthand the results of their inept management of the dunes. When they first purchased the Stamps Tract in 2009, they removed the vegetation from the steep dune above the parcel I live on, resulting in the yard I share with my landlady being flooded until mid-June one year, and til the end of May the following year. My landlady had always been an avid gardener, but lost her garden permanently as a result of the flooding, and has made do with a small vegetable and herb garden below her kitchen window in the ensuing years. When they first removed the vegetation from the dune above us, no one would speak to us about our concerns. When we eventually ran into the Managing Director and the Restoration Manager in the dunes, they essentially told us we did not know anything, they know everything, so we should shut up and there would be no flooding as a result of their activity (and blocked off our trail to the beach in retaliation for our having raised concerns). At its most basic level, the disagreement was as to whether or nor water runs downhill, and the resulting flooding, with our yard underwater for six months or more two years in a row, would seem to have proved we were correct.</p>

Water does, indeed, run downhill. (In the meantime, European beachgrass has taken over that dune, stabilizing it for now, but it is their stated intention to remove that as well, so that always hangs over our heads like a sword of Damocles.) I have, on a number of occasions, raised the issue of the threat to the water line with both the Planning Dept. and the Planning Commissioners, but neither has acknowledged the issue. It is worth noting, however, that they have consistently found that the flooding of our yard, the destruction of all the wetlands on the Stamps Tract (a CEQA violation), and resulting collapse of mammal and bird populations are not negative impacts. It is also worth noting that the Planning Dept. permit application for removal of vegetation was submitted by their then-Restoration Manager Emily Walter, and the approval was signed off on by her husband, County Planner Trevor Estlow.. Shortly after, Mr. Estlow would join FOD's Board of Directors, so both were then on FOD's payroll. In Oct. 2021, when an FOD-related issue was before the Planning Dept., and Mr. Estlow was the planner assigned to it, I submitted a letter stating my concerns during the Public Comment period. I hand-delivered it to the Planning Dept. front office, where it was stamped as received, and I watched as someone walked down the hallway with it, presumably to be placed in his mail slot or perhaps hand-delivered to his office. It disappeared, and was never in the Public Comments record. So those of us in this neighborhood who have campaigned for accountability for FOD do not have any confidence in the Planning Dept. Their turning a blind eye to my concerns regarding the water line does not provide any reassurance that perhaps those concerns are unfounded. I do not know if anyone from the district has noted the vulnerability of that stretch of the water line to the threat from a strong storm surge or tsunami, as it is really not something one would necessarily notice from the service road. Standing atop the foredune, however, gives another perspective.. And the removal of the beachgrass from that entire stretch of shoreline has only been completed very recently., I appreciate your time, and attention to this matter. I do not, however, think I will sleep too well tonight.

Respectfully, Jackson Hand

CONTINUING BUSINESS

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

To: Board of Directors
From: John Friedenbach
Date: January 11, 2024
Subject: Water Resource Planning (WRP) – Status Report

.....

The purpose of this memo is to summarize recent activities and introduce next steps for discussion.

1) Top-Tier Water Use Options

a) Local Sales

- i) Nordic Aquafarms. No update.
- ii) Trinidad Rancheria mainline extension. No update.
- iii) Blue Lake Rancheria mainline extension. Staff and Counsels are reviewing the Mainline Extension Agreement.
- iv) Offshore Wind Heavy Lift Multipurpose Marine Terminal Project. GM and Superintendent met with Harbor District staff to discuss project infrastructure and water demand. Total water demand estimates will be available in February.

b) Transport – no update.

c) Instream Flow Dedication

Waiting for comments from the Water Board staff on our draft petition for change application. Next step will be to evaluate draft comments by the Water Board Staff for incorporation into our petition for change submittal to the Water Board.

General Manager made public outreach presentations to the Kiwanis Clubs of Henderson Center and McKinleyville on January 3rd and 9th respectively about the 1707 petition for change.

A Special Board Meeting Study Session regarding our draft petition for change needs to be re-scheduled from Wednesday, January 24th. At the Board meeting on the 11th, we will discuss Director availability during February for re-scheduling. The Special Meeting will be at Eureka Wharfinger Building at 5:30 p.m. to 7:30 p.m. Information will be listed on District website at: <https://www.hbmwd.com/water-resource-planning>

Possible meeting dates, based on Wharfinger Building availability, are:
February: 12th to 15th or 20th.
March: 4th, 7th, or 8th.

**Department of Toxic Substances Control
Former McNamara and Peepe Lumber Mill
Monthly Summary Report**

December 2023

This monthly summary report summarizes environmental site investigation and remediation activities conducted by the Department of Toxic Substances Control (DTSC) or by their contractor, SHN Consulting Engineers and Geologists, Inc. (SHN) at the former McNamara and Peepe Lumber Mill Site.

a. Actions during this calendar month (December 2023).

- Contract Renewal. The contract with SHN has been extended to December 2024. The proposed work includes additional investigation and monitoring, well installation, and a human health risk assessment.

b. Planned activities for the next month and beyond (January 2024).

- First Semi-Annual 2023 Groundwater Sampling Report. DTSC is currently reviewing the groundwater sampling report. The review is expected to be completed in January 2024.
- 2023 Site Investigation Report of Findings. DTSC is currently reviewing the 2023 site investigation report. The review is expected to be completed in early 2024.
- Second Semi-Annual 2023 Groundwater Sampling Report. A summary of activities and results for the second semi-annual groundwater sampling event was submitted by SHN and is currently being reviewed by DTSC.
- Virtual Quarterly Update Meeting. DTSC will be hosting a virtual quarterly update meeting with DTSC, EPA, Humboldt Bay Municipal Water District, and Humboldt Waterkeeper on January 19, 2024. An agenda will be sent out in January.

DTSC website for McNamara & Peepe Lumber Mill (12240115)

1619 Glendale Drive

Humboldt County

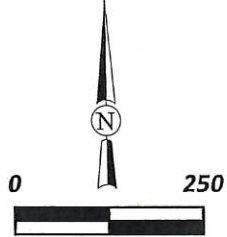
https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=12240115

EXPLANATION

 **STORM WATER SAMPLE LOCATION**

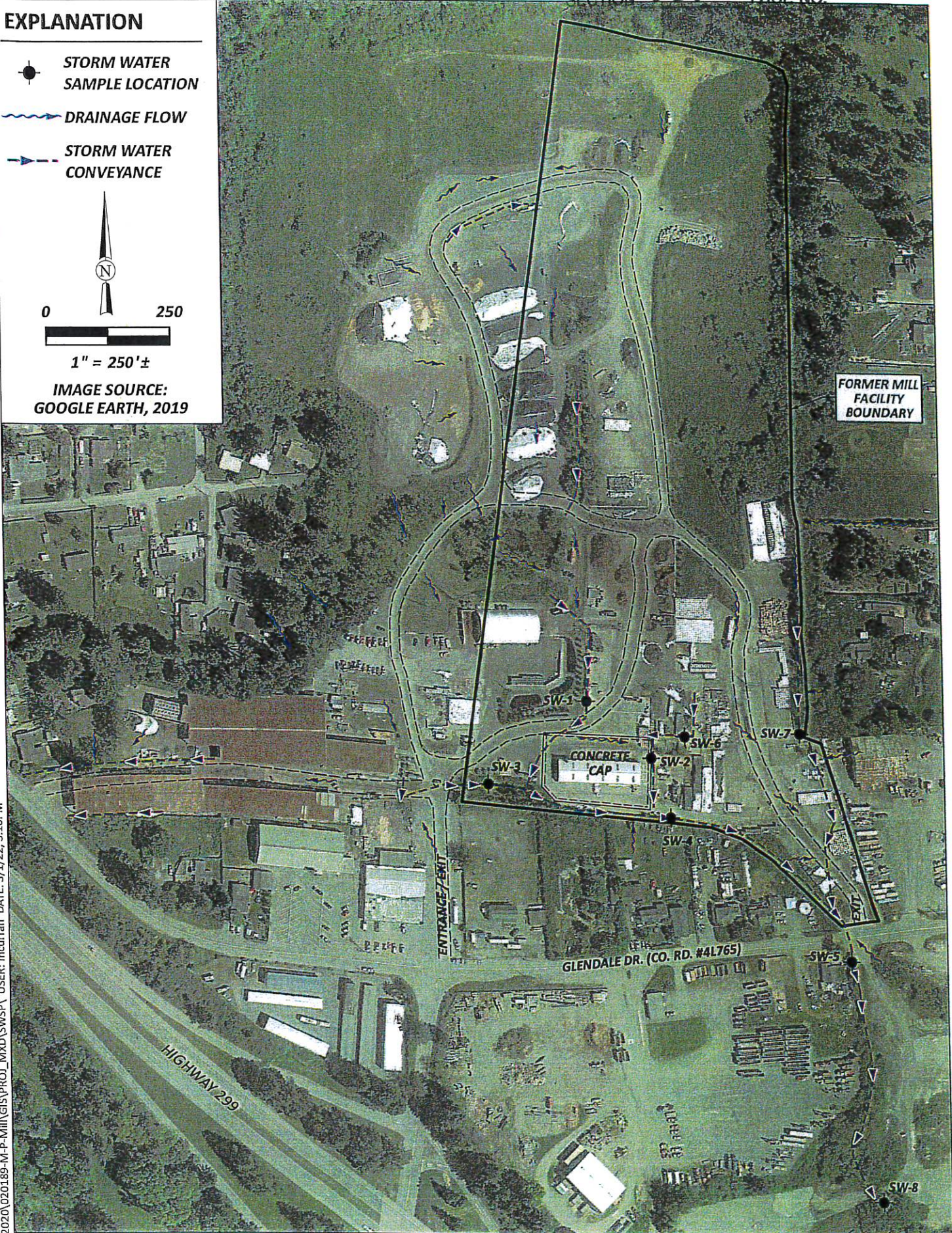
 **DRAINAGE FLOW**

 **STORM WATER CONVEYANCE**



1" = 250'±

IMAGE SOURCE:
GOOGLE EARTH, 2019



FORMER MILL FACILITY BOUNDARY

I:\projects\2020\020189-M-P-Mill\GIS\PROJ_MXD\SWSP\ USER: mcurran DATE: 3/1/22, 3:10PM



Former McNamara & Peepe Lumber Mill
Storm Water Sampling Plan
Glendale Drive, Arcata, California

Site Plan with
Storm Water Sample Locations
SHN 020189.050

Nicole Yuen

Stormwater Sample Results, February 2023, Former McNamara and Peepe Lumber Mill, 1619 Glendale Drive, Arcata, California; EnviroStor ID: 12240115

May 19, 2023

Page 3

labeled, immediately placed in an ice-filled cooler, and submitted to the laboratory for analyses under the appropriate chain-of-custody documentation.

Monitoring and sampling equipment was cleaned prior to arriving onsite and between use at each sampling location. Small equipment that required onsite cleaning was washed in a water solution containing Liquinox® cleaner, followed by two distilled-water rinses. Appendix 1 presents field notes for stormwater sample collection.

3.0 Laboratory Analysis

Stormwater samples collected were analyzed for:

- chlorinated phenols (pentachlorophenol [PCP] and tetrachlorophenol [TCP]) by National Council for Air and Stream Improvement, Inc. Method 86.07, and
- chlorinated dibenzodioxins and chlorinated dibenzofurans (dioxins and furans) by U.S. Environmental Protection Agency (EPA) Method 8290A

North Coast Laboratories, Ltd., a state-certified analytical laboratory located in Arcata, California, performed the PCP and TCP analysis. The reporting limit (RL) for each constituent are as follows:

- PCP = 0.3 micrograms per liter (ug/L)
- 2,3,4,6-TCP = 1.0 ug/L

Dioxins were analyzed by Enthalpy Analytical - EDH, a state-certified analytical laboratory located in El Dorado Hills, California. The estimated detection limit (EDL) for 2,3,7,8-tetrachlorobenzene-p-dioxin (TCDD) ranged from 0.466 to 1.36 picograms per liter (pg/L). The method detection limit (MDL) for 2,3,7,8-TCDD analysis for all stormwater samples analyzed was 0.169 pg/L, with the exception of SW-2 and SW-3 with an MDL of 0.170 pg/L.

4.0 Stormwater Sampling Results

Table 1 summarizes the February 27, 2023, stormwater analytical results for dioxins, PCP, and TCP.



Nicole Yuen

Stormwater Sample Results, February 2023, Former McNamara and Peepe Lumber Mill, 1619 Glendale Drive, Arcata, California; EnviroStor ID: 12240115

May 19, 2023

Page 4

**Table 1. Stormwater Analytical Results, February 27, 2023
Former McNamara and Peepe Lumber Mill, Arcata, California**

Sample Location	2,3,7,8-TCDD ^a (pg/L) ^b	2005 WHO TEQ ^c (pg/L)	PCP ^d (ug/L) ^e	TCP ^d (ug/L)
SW-1	<0.714 ^f	0.00	<0.30	<1.0
SW-2	< 1.36	1.73 J ^g	<0.30	<1.0
SW-3	<0.618	0.262 J	<0.30	<1.0
SW-4	<0.597	0.255 J	<0.30	<1.0
SW-5	<0.466	0.483 J	<0.30	<1.0
SW-6	0.805	6.10 J	<0.30	<1.0
SW-7	<0.799	1.66 J	<0.30	<1.0
MCL^h	30	NRⁱ	1.0	NR
PHGs^j	0.05	NR	0.3	NR

^a 2,3,7,8-TCDD: 2,3,7,8-Tetrachlorodibenzodioxin was analyzed in general accordance with EPA Method 8290^b pg/L: picograms per liter^c 2005 WHO TEQ: 2005 World Health Organization's Toxic Equivalency Quotient, TEF calculations. TEQs are J-flagged as they are calculated from one or more result with a J-flag (Analyte concentration below calibration range).^d Pentachlorophenol (PCP) and 2,3,4,6-Tetrachlorophenol (TCP) were analyzed in general accordance with National Council for Air and Stream Improvement, Inc. Method 86.07^e ug/L: micrograms per liter^f <: "less than" the stated laboratory reporting limit for chlorophenols and detection limit for dioxins^g J: The amount detected is below the Reporting Limit/Limit of Quantitation.^h MCL: maximum contaminant level, State Water Resources Control Board, March 13, 2019ⁱ NR: no reference^j PHGs: California public health goals, Office of Environmental Health Hazard Assessment, March 13, 2019

Appendix 2 includes the complete analytical test results, chain-of-custody documentation, and laboratory quality control data. Multipliers used for the 2005 World Health Organization Toxic Equivalency Factors (TEFs) for dioxins and furan compounds are additionally provided in Appendix 2. Historical stormwater sample results for the former McNamara and Peepe Lumber Mill are provided in Appendix 3.

5.0 Discussion of Results

Concentrations of PCP, TCP, or the dioxin congener 2,3,7,8-TCDD were not identified in stormwater samples collected during the February 27, 2023, sampling event above laboratory method detection limits. The stormwater sample collected from location SW-6 did report an estimated maximum potential concentration (EMPC) of 0.805 pg/L for 2,3,7,8-TCDD. TEQs are J-flagged as they are calculated from one or more result with a J-flag (analyte concentration is below the detection limit/limit of quantitation). Analytical results for the most immediate downstream location of the concrete cap (SW-4) indicate no detectable concentrations of 2,3,7,8-TCDD and a TEQ of 0.255 J pg/L.



Table 3-1
Historical Storm Water Sample Results
Former McNamara and Peepe Lumber Mill, Arcata, California

Sample Location	Date	2,3,7,8-TCDD ^a (pg/L) ^b	2005 WHO TEQ ^c (pg/L)	PCP ^d (ug/L) ^e	TCP ^d (ug/L)
SW-1	2/18/21	<0.512 ^f	0.0736 J ^g	<0.30	<1.0
	12/15/21	<0.721	0.351 J	<0.30	<1.0
	4/14/22	<0.743	0.181 J	<0.30	<1.0
	12/08/22	<0.592	4.37 J	<0.30	<1.0
	2/27/23	<0.714	0.00	<0.30	<1.0
SW-2	2/18/21	<0.609	7.79 J	<0.30	<1.0
	12/15/21	<0.508	2.70 J	<0.30	<1.0
	12/15/21 (F) ^h	<0.645	0.308 J	--	--
	4/14/22	5.18	96.1 J	<0.30	<1.0
	12/08/22	<0.604	2.58 J	<0.30	<1.0
	2/27/23	<1.36	1.73 J	<0.30	<1.0
SW-3	2/18/21	<0.530	4.44 J	0.099 J	<1.0
	12/15/21	<0.688	6.82 J	0.091 J	<1.0
	4/14/22	<0.745	0.179 J	<0.30	<1.0
	12/08/22	<0.733	4.47 J	<0.30	<1.0
	2/27/23	<0.618	0.262 J	<0.30	<1.0
SW-4	2/18/21	<0.459	11.4 J	0.11 J	<1.0
	12/15/21	<0.731	5.87 J	<0.30	<1.0
	12/15/21 (F)	<0.715	0.945 J	--	--
	4/14/22	<0.817	0.233 J	<0.30	<1.0
	12/08/22	<0.715	3.30 J	<0.30	<1.0
	2/27/23	<0.597	0.255 J	<0.30	<1.0
SW-5	2/18/21	<0.762	8.04 J	0.14 J	<1.0
	12/15/21	<0.602	4.06 J	<0.30	<1.0
	12/15/21 (F)	<0.785	1.39 J	--	--
	4/14/22	<0.697	3.74 J	<0.30	<1.0
	12/08/22	1.55 J	19.1 J	<0.30	<1.0
	2/27/23	<0.466	0.483 J	<0.30	<1.0
SW-6	12/15/21	5.12	63.9 J	<0.30	<1.0
	12/15/21 (F)	<0.713	0.0572 J	--	--
	4/14/22	4.95	121 J	0.48	<1.0
	12/08/22	<0.700	8.54 J	<0.30	<1.0
	2/27/23	0.805	6.10 J	<0.30	<1.0



Sample Location	Date	2,3,7,8-TCDD ^a (pg/L) ^b	2005 WHO TEQ ^c (pg/L)	PCP ^d (ug/L) ^e	TCP ^d (ug/L)
SW-7	12/15/21	<0.634	4.87 J	0.21 J	<1.0
	12/15/21 (F)	<0.728	0.970 J	--	--
	4/14/22	<0.771	0.317 J	0.15 J	<1.0
	12/08/22	2.59 J	36.8 J	0.12 J	<1.0
	2/27/23	<0.799	1.66 J	<0.30	<1.0
SW-8	12/15/21	<0.797	3.80 J	<0.30	<1.0
	12/15/21 (F)	<0.733	2.38 J	--	--
	4/14/22	<0.715	1.35 J	<0.30	<1.0
MCL^l		30	NR^j	1.0	NR
PHGs^k		0.05	NR	0.3	NR

^a 2,3,7,8-TCDD: 2,3,7,8-Tetrachlorodibenzodioxin was analyzed in general accordance with EPA Method 8290

^b pg/L: picograms per liter

^c 2005 WHO TEQ: 2005 World Health Organization's Toxic Equivalency Quotient, TEF calculations. TEQs are J-flagged as they are calculated from one or more result with a J-flag (Analyte concentration below calibration range).

^d Pentachlorophenol (PCP) and 2,3,4,6-Tetrachlorophenol (TCP) were analyzed in general accordance with National Council for Air and Stream Improvement, Inc. Method 86.07

^e ug/L: micrograms per liter

^f <: "less than" the stated laboratory reporting limit

^g J: estimated value

^h (F): Field filtration prior to sample collection using a new 0.45-micron filter

^l MCL: maximum contaminant level, State Water Resources Control Board, March 13, 2019

^j NR: no reference





^k PHGs: California public health goals, Office of Environmental Health Hazard Assessment, March 13, 2019




Path: P:\Eureka\2020\020189-M-P-Mill\GIS\PROJ_MXD\Groundwater\GW_Figs_GWCS.mxd User Name: mrose DATE: 10/10/22, 10:00AM



EXPLANATION

-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
-  CONCRETE CAP AREA
-  FORMER MILL BOUNDARY

0 100
1" = 100'




Former McNamara & Peepe Lumber Mill
 Groundwater Monitoring
 1619 Glendale Drive, Arcata, California
 October 2022

Groundwater Elevation Contours
 August 23, 2022
 SHN 020189.030

Image Source:
 Google Earth, 2019

GW_Fig3_GWCS

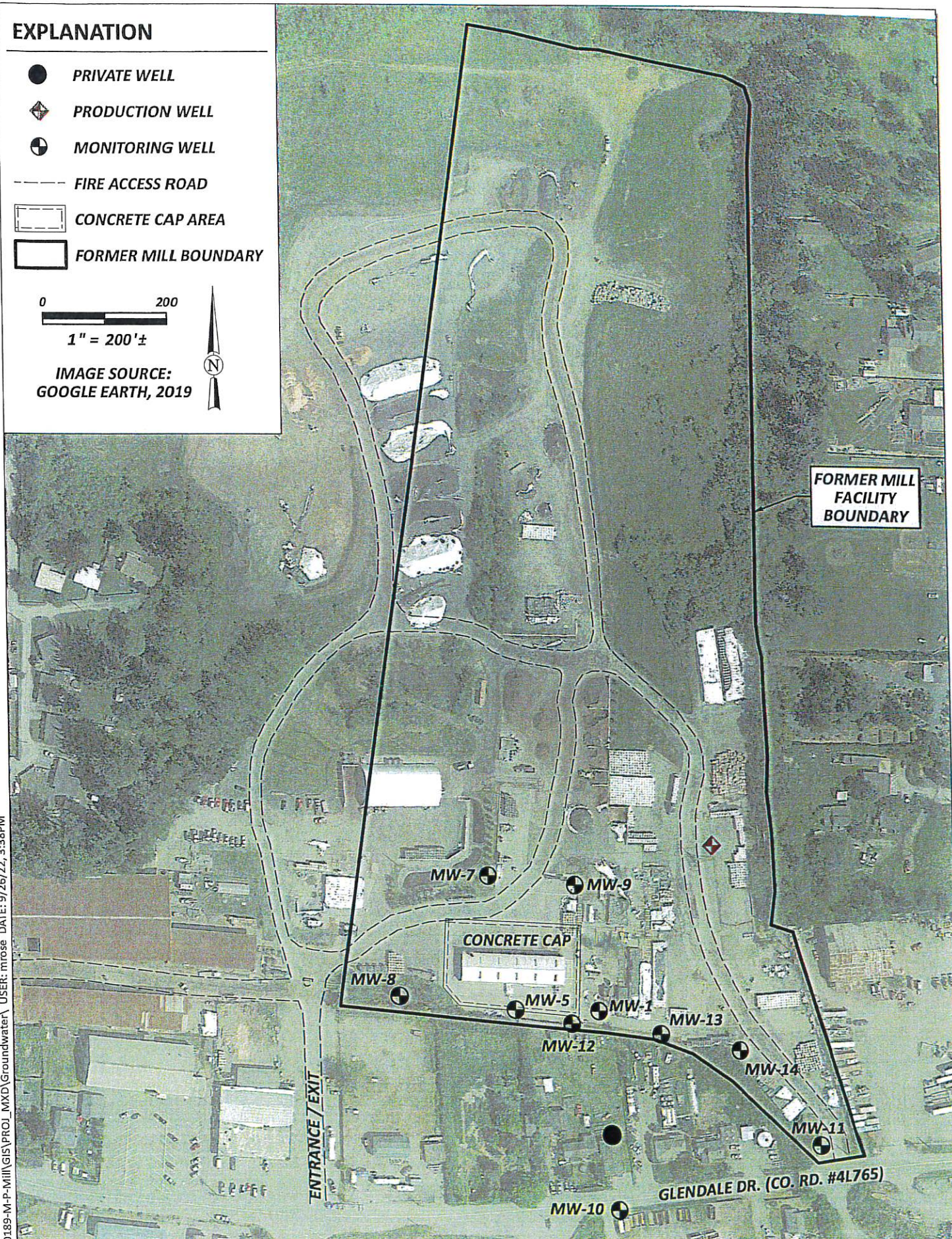
Figure 3

EXPLANATION

- PRIVATE WELL
- ◆ PRODUCTION WELL
- ⊕ MONITORING WELL
- - - FIRE ACCESS ROAD
- ▭ CONCRETE CAP AREA
- ▭ FORMER MILL BOUNDARY

0 200
1" = 200'±

IMAGE SOURCE:
GOOGLE EARTH, 2019



FORMER MILL FACILITY BOUNDARY

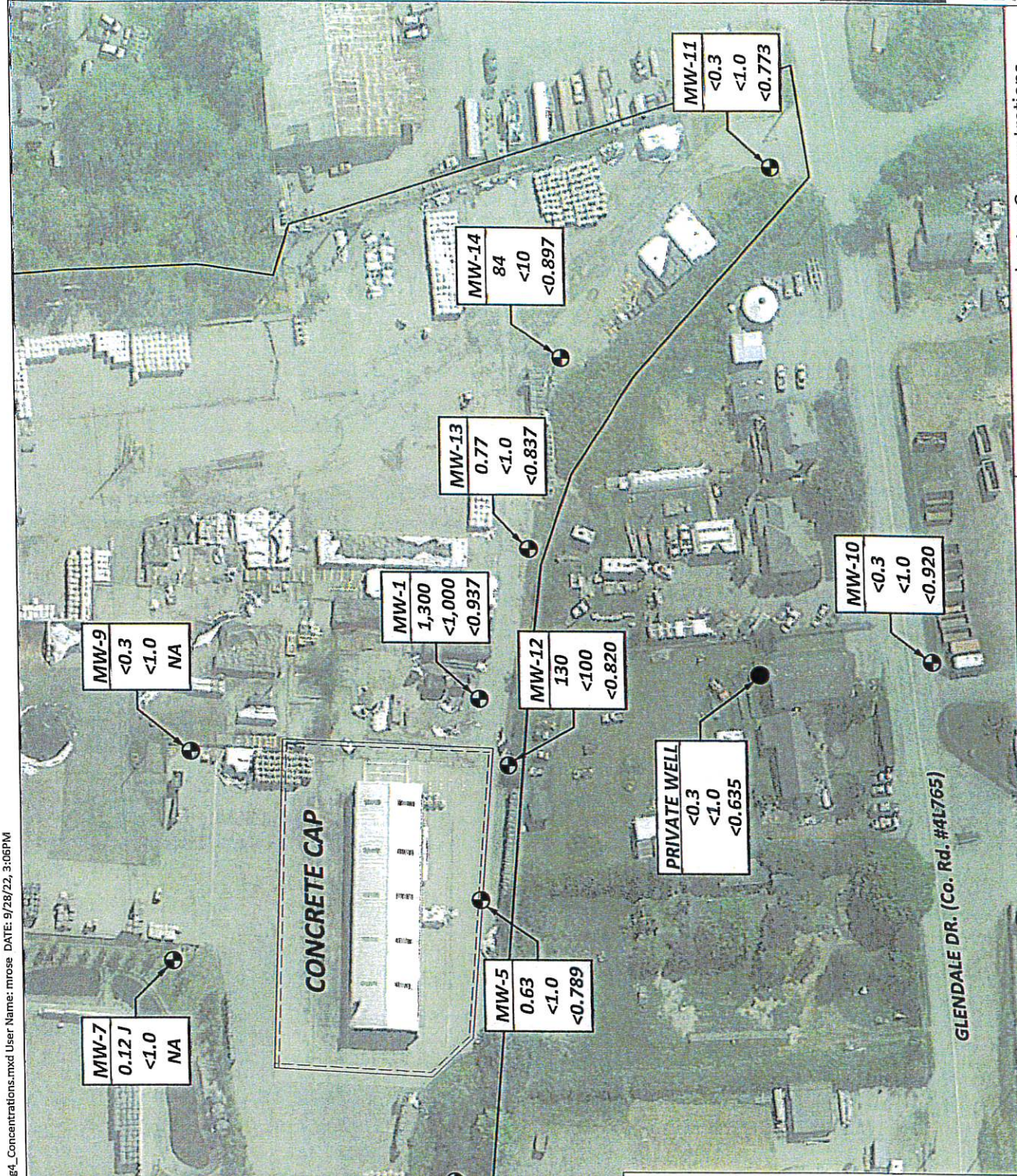
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Former McNamara & Peepe Lumber Mill
Groundwater Monitoring
1619 Glendale Drive, Arcata, California

Site Plan

SHN 020189.030



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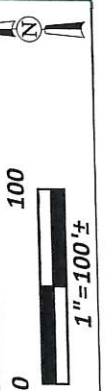
Select Groundwater Concentrations
August 23, 2022
SHN 020189.030

Former McNamara & Peepe Lumber Mill
Groundwater Monitoring
1619 Glendale Drive, Arcata, California
September 2022



EXPLANATION

- PRIVATE WELL
 - ⊕ MONITORING WELL LOCATION
 - ▭ CONCRETE CAP AREA
 - ▭ FORMER MILL BOUNDARY
- | MW-5 | MONITORING WELL LOCATION |
|-------|--------------------------|
| 0.30 | PCP (ug/L) |
| 1.0 | TCP (ug/L) |
| 0.539 | 2,3,7,8-TCDD (pg/L) |



**Table 2. Groundwater Analytical Results, August 23, 2022
Former McNamara and Peepe Lumber Mill, Arcata, California**

Sample Location	2,3,7,8-TCDD ^a (pg/L)	2005 WHO TEQ ^b (pg/L)	PCP ^c (ug/L) ^d	TCP ^c (ug/L)
MW-1	<0.937 ^e	34.0	1,300^f	<1,000 ^g
MW-5	<0.789	0.0104	0.63	<1.0
MW-7	NA ^h	NA	0.12^j	<1.0
MW-8	NA	NA	<0.3	<1.0
MW-9	NA	NA	<0.3	<1.0
MW-10	<0.920	2.40	<0.3	<1.0
MW-11	<0.773	0.0669	<0.3	<1.0
MW-12	<0.820	0.00513	130	<100 ^g
MW-13	<0.837	0.00408	0.77	<1.0
MW-14	<0.897	0.671	84	<10 ^g
Dup (MW-10)	<0.956	2.11	<0.3	<1.0
Private Well	<0.635	0.0	<0.3	<1.0
MCL^j	30	NR^k	1.0	NR
PHGs^l	0.05	NR	0.3	NR

^a 2,3,7,8-TCDD: 2,3,7,8-Tetrachlorodibenzodioxin was analyzed in general accordance with EPA Method 8290

^b 2005 WHO TEQ: 2005 World Health Organization's Toxic Equivalency Factor

^c Pentachlorophenol (PCP) and 2,3,4,6-Tetrachlorophenol (TCP) were analyzed in general accordance with National Council for Air and Stream Improvement, Inc. Method 86.07.

^d ug/L: micrograms per liter

^e <: "less than" the stated method detection limit

^f **Bold** values indicate an exceedance of the MCL or PHGs.

^g Sample was diluted due to the level of target analytes present in the sample. The method reporting limit was raised to reflect the required dilution.

^h NA: not analyzed

^j **J**: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

^j MCL: maximum contaminant level, State Water Resources Control Board (March 13, 2019).

^k NR: no reference

^l PHGs: California public health goals, Office of Environmental Health Hazard Assessment (March 13, 2019).

Samples from monitoring wells MW-1, MW-12, and MW-14 were diluted by the testing laboratory (NCL) due to the level of target analytes present in the sample (PCP). As a result, the MDLs were raised to reflect the required dilution. Appendix 3 includes the complete analytical test results, chain-of-custody documentation, and laboratory quality control data.

4.3 Field Measured Parameters

Measurements for groundwater field parameters collected from site wells during the August 2022 sampling event are included in Table 3.



**Table 2-3
Groundwater Analytical Results
2015 to 2022**

Well Name	Date	PCP	TCP	Chromium	Hexavalent Chromium	Nitrate	Total Iron	Ferrous Iron	Arsenic	Sulfate	Chloride	TPHD	VOCs (DIPB)	
	Units	µg/L				mg/L	µg/L			mg/L	µg/L			
MW-1	5/13/2015	690 ^a	14	--	--	--	--	--	--	--	--	--	--	
	5/13/2015 (FD)	560 ^a	12	--	--	--	--	--	--	--	--	--	--	
	11/11/2015	610 ^a	120	--	--	--	--	--	--	--	--	--	--	
	11/11/2015 (FD)	670 ^a	120	--	--	--	--	--	--	--	--	--	--	
	5/23/2016	830 ^a	7.1	--	--	--	--	--	--	--	--	--	--	
	5/23/2016 (FD)	1,100 ^a	8	--	--	--	--	--	--	--	--	--	--	
	12/14/2016	1.2 ^a	<1.0	<5.0	<5.0	0.99	25	<100	<10	18	19	--	--	
	12/14/2016 (FD)	1.2 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/8/2017	570 ^a	8.4	--	--	--	--	--	--	--	--	--	--	
	5/8/2017 (FD)	530 ^a	7.9	--	--	--	--	--	--	--	--	--	--	
	8/21/2019	1,200 ^a	29	--	<1.0	--	--	--	--	--	--	740 A)	1.7	
	3/5/2021	460 ^a	5.6	--	--	--	--	--	--	--	--	--	--	
	2/22/2022	920 ^a	9.7	--	--	--	--	--	--	--	--	--	--	
8/23/2022	1300 ^a	<1,000 B9	--	--	--	--	--	--	--	--	--	--		
MW-5	5/13/2015	35 ^a	4.3	--	--	--	--	--	--	--	--	--	--	
	11/11/2015	65 ^a	3.3	--	--	--	--	--	--	--	--	--	--	
	5/23/2016	56 ^a	1.6	--	--	--	--	--	--	--	--	--	--	
	12/14/2016	39 ^a	2.3	<5.0	<5.0	<0.10	330	600	<10	12	45	--	--	
	5/8/2017	46 ^a	2.3	--	--	--	--	--	--	--	--	--	--	
	8/21/2019	--	--	--	--	--	--	--	--	--	--	--	--	
	3/5/2021	18	<1.0	--	--	--	--	--	--	--	--	--	--	
	2/22/2022	19	1.1	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	0.63	<1.0	--	--	--	--	--	--	--	--	--	--	
MW-7	5/13/2015	0.39	<1.0	--	--	--	--	--	--	--	--	--	--	
	11/11/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/23/2016	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	12/14/2016	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/8/2017	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/21/2019	<0.3	<1.0	--	<1.0	--	--	--	--	--	--	<50	<0.5	
	3/5/2021	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	2/22/2022	0.26 J	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	0.12 J	<1.0	--	--	--	--	--	--	--	--	--	--	
	MW-8	5/13/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--
		11/11/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--
5/23/2016		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
12/14/2016		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
5/8/2017		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
8/21/2019		<0.3	<1.0	--	--	--	--	--	--	--	--	--	<0.5	
3/5/2021		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
2/22/2022		0.13 J	<1.0	--	--	--	--	--	--	--	--	--	--	
8/23/2022		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
MW-9		5/13/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--
	11/11/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/23/2016	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	12/14/2016	<0.3	<1.0	<5.0	<5.0	1.1	<15	<100	--	1.9	10	--	--	
	5/8/2017	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/21/2019	<0.3	<1.0	--	--	--	--	--	--	--	--	--	<0.5	
	3/5/2021	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	2/22/2022	0.21 J	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	MW-10	5/13/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--
11/11/2015		<0.6	<2.0	--	--	--	--	--	--	--	--	--	--	
5/23/2016		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
12/14/2016		<0.3	<1.0	<5.0	<5.0	0.11	58	<100	<10	1.5	0.96	--	--	
5/8/2017		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
8/21/2019		<0.3	<1.0	--	<1.0	--	--	--	--	--	--	280 A)	<0.5	
8/21/2019 (FD)		<0.3	<1.0	--	<1.0	--	--	--	--	--	--	210 A)	<0.5	
3/5/2021		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
3/5/2021 (FD)		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
2/22/2022		0.12 J	<1.0	--	--	--	--	--	--	--	--	--	--	
2/22/2022 (FD)		0.26 J	<1.0	--	--	--	--	--	--	--	--	--	--	
8/23/2022		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
8/23/2022 (FD)		<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
MW-11	5/13/2015	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	11/11/2015	0.57	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/23/2016	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	12/14/2016	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	5/8/2017	1.9 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/21/2019	<0.3	<1.0	--	--	--	--	--	--	--	--	--	<0.5	
	3/5/2021	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	2/22/2022	0.14 J	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	<0.3	<1.0	--	--	--	--	--	--	--	--	--	--	
	MW-12	5/13/2015	52 ^a	<1.0	--	--	--	--	--	--	--	--	--	--
11/11/2015		51 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
5/23/2016		120 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
12/14/2016		46 ^a	<1.0	<5.0	<5.0	0.13	<15	<100	<10	5.4	28	--	--	
5/8/2017		81 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
8/21/2019		110 ^a	1.7	--	--	--	--	--	--	--	--	--	--	
3/5/2021		120 ^a	<1.0	--	--	--	--	--	--	--	--	--	--	
2/22/2022		120 ^a	0.49 J	--	--	--	--	--	--	--	--	--	--	
8/23/2022		130 ^a	<100 B9	--	--	--	--	--	--	--	--	--	--	
MW-13	2/22/2022	0.27 J	<1.0	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	0.77	<1.0	--	--	--	--	--	--	--	--	--	--	
MW-14	2/22/2022	85 ^a	1.7	--	--	--	--	--	--	--	--	--	--	
	8/23/2022	84 ^a	<10 B9	--	--	--	--	--	--	--	--	--	--	

Table 2-4
Dioxin Analytical Results
McNamara and Peepo Lumber Mill

Well Name	Date	2,3,7,8-TCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDE	1,2,3,4,7,8,9-HpCDF	Total HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HxCDF	Total HxCDF	OCDD	OCDF	1,2,3,7,8-PeCDD	Total PeCDD	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	Total PeCDF	2,3,7,8-TCDF	Total TCDF	TEQ		
																								CA MCL	CA PHG
MW-1	10/18/2010	0	180	0	0	200																	2.8		
	11/2/2011	<10	110	200	27	130																	4.67		
	11/3/2011 (FD)	<10	110	200	28	130																	4.38		
	8/24/2019	0	520	970	100	61	550	2,21	221	ND	75	5,82	17,41	4310 D.M	39,300	2910	340	<1.52	122	14.8	<1.20	474 D.M	<0.690	103 D.M	88.6
	3/5/2021	<0.941	3760	7010	975	63.8	4850	8,11	166	12.3	103	<2.50	<2.06	2,060 D.M	17,000	1,150	44	8.84	<1.48	246 D.M	<0.717	85.9 D.M	<0.717	85.9 D.M	34.2
MW-5	2/22/2022	<0.727	1,690	3,200	339	1,710	4,251	70	5.97	260	<2.11	9.55	2,030 D.M	17,400	1,230	<1.40	23.6	<2.01	<1.96	273 D.M	<0.919	73.6 D.M	<0.919	73.6 D.M	34
	8/23/2022	<0.937	1,630	3,110	341	25.1	1,730	5,14	64.3	5,01	254	<2.03	9.55	2,030 D.M	17,400	1,230	<1.40	23.6	<2.01	<1.96	273 D.M	<0.919	73.6 D.M	34	
	10/18/2010 (FD)	0	0	0	0	0																	0.054		
	10/18/2010 (FD)	0	0	0	0	0																	0.048		
	11/3/2011	<9.9	<3.4 U	<8.0 U	<1.2 U		<2.6 U																	0.573 U	
MW-10	3/5/2021	<0.622	3,04	5,56	<1.34	<1.91	<1.19	<1.27	<1.10	<1.51	19.1	<1.12	<1.51	19.1	<2.57	<0.935	<0.935	<0.852	<0.817	<0.852	<0.600	<0.600	<0.600	0.0361	
	2/22/2022	<0.696	2,75	6,52	<1.64	<2.09	<1.42	<1.60	<1.19	<1.65	19.5	<1.17	<1.65	19.5	<2.20	<1.69	<1.69	<1.56	<1.17	<1.37	<0.770	<0.770	<0.770	0.0334	
	8/23/2022	<0.789	<5.03	<1.30	<1.85	<1.85	<1.85	<1.24	<1.30	<0.971	<1.38	<0.946	<1.38	34.5	<3.11	<0.930	<0.930	<0.622	<0.622	<0.547	1.37	<0.547	1.37	0.0104	
	10/18/2010	0	0	0	0	0																	0.1		
	8/21/2019	0	4.6	4.6	<52	<52	<52	<52	ND	35	<52	<52	<52	<100	<110	0.64	2.4	0.53	6.6	0.45	0.45	0.45	0.45	3.7	
MW-11	8/21/2019 (FD)	0	11	19	3.6	8.1	18	2.4	0.92	1.3	13	6.4	55	<110	<110	0.64	2.4	0.53	6.6	0.45	0.45	0.45	0.45	3.7	
	3/5/2021	<0.539	3,86	7,26	<1.39	<1.72	<1.15	<1.11	<1.24	<1.56	17.3	<1.26	<1.56	17.3	<2.61	<0.824	<0.824	<0.951	<0.976	<0.951	<0.731	<0.731	<0.731	0.0438	
	2/22/2022	<0.652	30.8	82.3	12.5	<1.37	33.1	3.42	2.64	18.2	<1.25	<1.25	27.1 D.M	347	38.7	<1.20	<0.989	<0.961	10.9	<0.652	4.28	<0.652	4.28	1.95	
	2/22/2022 (FD)	<0.698	30.4	55.0	8.11	<1.18	20.7	<1.84	<1.32	<1.73	7.0	<1.47	<1.99	16.9 D.M	221	24.7	<1.35	<0.868	<0.873	5.86	<0.743	3.01	<0.743	3.01	0.459
	8/23/2022	<0.920	79.7	134	19.6	<2.07	54.1	4.00	4.45	30.3	<1.59	<1.31	39.9 D.M	520	62.4	<2.07	<2.07	<0.948	<0.920	18.7 D.M	0.883	10.1 D.M	<0.883	10.1 D.M	2.40
MW-12	10/18/2010	0	0	0	0	0																	0		
	2/22/2022	0.983	7.05	13.5	<1.85	<2.24	<2.24	<1.96	<1.94	<1.79	<1.78	<1.27	3.97	33.2	3.15	<1.77	<1.77	<1.53	<1.52	4.81	<0.946	5.17	<0.946	5.17	0.0605
	8/23/2022	<0.773	5.92	11.8	<0.942	<1.39	11.6	<2.09	<2.19	<2.00	<1.06	<1.34	3.60 D.M	25.5	<3.85	<1.17	<1.17	<0.601	<0.622	3.50 D.M	<0.755	8.46 D.M	<0.755	8.46 D.M	0.0669
	3/5/2021	<0.542	2.37	6.27	<1.63	<2.15	<2.15	<1.52	<1.55	<1.89	<1.39	<1.39	<1.39	19.8	<2.42	<0.976	<0.976	<0.882	<0.882	<0.717	<0.717	<0.717	<0.717	<0.717	
	2/22/2022	<0.556	2.78	6.36	<1.31	<1.70	<1.70	<1.96	<2.19	<1.96	<1.85	<1.21	<0.857	1.99	<2.82	<1.24	<1.24	<1.33	<1.32	<1.33	<0.675	<0.675	<0.675	0.0337	
MW-13	8/23/2022	<0.820	<2.69	<0.851	<1.23	<1.23	<1.56	<1.46	<1.55	<1.46	<1.20	<1.18	<1.62	17.1	<2.05	<0.969	<0.969	<0.718	<0.761	<0.761	<0.618	<0.618	<0.618	0.0513	
	2/22/2022	<0.577	<1.83	<1.23	<1.69	<1.69	<1.38	<1.45	<1.19	<0.850	<1.19	<0.850	<1.19	13.3	<1.90	<0.928	<0.928	<0.866	<0.822	<0.866	<0.767	<0.767	<0.767	0.00839	

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**NEW
BUSINESS**

**Resolution No. 2024-01
Recognizing and Honoring the Outstanding Service and Achievements of
Dee Dee Simpson-Glenn**

WHEREAS Dee Dee has faithfully served the Humboldt Bay Municipal Water District for 21 years, 4 months, and 27 days, (not that she would count), beginning August 19, 2002 and will retire from the District on January 15th, 2023; and

WHEREAS Dee Dee has been a beloved and respected employee and has been a valuable asset in the cultivation and nurturing of new employees by sharing stories of District history and enlightening them to the "olden' days" when "WTF" only meant Water Task Force; and

WHEREAS Dee Dee has explored the cosmos to hunt down tardy timesheets; has scrutinized and vetoed all means of outlandish peculiarities, blunders, missteps, and general kerfuffles on timesheets; and for every payroll has given her endorsement to the timesheets, meticulously ensuring that her colleagues can mingle with their money and rendezvous with their riches timely and reliably; and

WHEREAS Dee Dee has been the queen of multitasking, the detailer of details, and the principal planner for a plethora of parties and official District soirees; and

WHEREAS Dee Dee has worked tirelessly maintaining the Ruth Lake Lease Lot dossier, persevering to amass arduous archives of the complicated particulars of who's who, who's where, what's what, and what's where, as aficionado of policies and arbiter of improvements; and

WHEREAS Dee Dee has diligently and painstakingly worked with two separate utility billing datasets with accounting acumen and bookkeeping brilliance, has gallantly held court with screaming utility customers, has patiently listened to stories of woe about: payments lost in the mail, payments eaten by dogs, and absconded payments because of the death of the family cat, gerbil, squirrel, or banana slug; and

WHEREAS Dee Dee has been the queen of straightening, tidying, and de-cluttering, and has organized and re-organized the District vault including classifying, codifying, and wrangling the great masses of mountains of extensive District historical records and endeavored to drag the geriatric data from the dinosaur-laden dark ages into the updated and modern digital world to be preserved for all-of-evermore; and

WHEREAS Dee Dee has been the omnipotent ordering guru of the District chapeaus and safety wear, as well as the occasional whizbang wearer of her very own "crazy hat;" and

WHEREAS the District has thoroughly benefitted from Dee Dee's perfection, excellency, and general gold-star abilities in her completion of "all other duties as assigned" (permanently re-named "Dee-Dee Duties"); and

WHEREAS Dee Dee has provided exceptional public service for over twenty-years, the Board of Directors wishes to formally recognize and commend such service;

THEREFORE, BE IT RESOLVED, that the HUMBOLDT BAY MUNICIPAL WATER DISTRICT Board of Directors hereby declares, to Dee Dee Simpson-Glenn, on behalf of the District, the staff, and other close associates, its genuine appreciation for dedicated service performed during her exceptional tenure with the District.

PASSED, APPROVED, AND ADOPTED this 11th day of January 2024

Attest:

Neal Latt, President

Michelle Fuller, Vice-President

J. Bruce Rupp, Secretary/Treasurer

David Lindberg, Asst. Secretary/Treasurer

Sheri Woo, Director

John Friedenbach, General Manager

Dale Davidsen, Superintendent

Chris Harris, Business Manager

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

To: Board of Directors
From: Contessa Dickson
Date: January 11, 2024
Subject: Appointment of Officers and Committee Members

At the January Board meeting, the election/appointment of officers and committee members occurs. The following is a summary of required and discretionary actions that will be on the agenda for your January 11, 2024 meeting.

a. Election/Appointment of Officers

Attached for your information is Section 5 of the Board's Governance manual that addresses the internal organization of the District (These requirements were taken from the pertinent sections of the California Water Code).

1. President - The Board must elect from its members a President in January of odd-numbered years. Since this will be an even-numbered year, an election is **not** required.
2. Vice-President – You may elect a Vice-President at any meeting. If the President is absent or unable to act, the Vice-President would exercise the powers of the President.
3. Appointment of Other Officers – The Board may appoint other officers at any time.

b. Appointment of Committee Members

Attached for your information is Appendix E of your Governance manual that lists the officer and committee assignments as they existed last year, as well as the committee charters. Each is briefly discussed below.

1. Other Appointments:

- ACWA Region 1 – Director Rupp is on the Board.
- ACWA-JPIA Board – Director Rupp is currently on the Board and Director Fuller and General Manager Friedenbach are the alternates.
- Countywide RDA Oversight Board-Director Rupp is on the Board.
- JPIA Employee Benefits Committee- Director Rupp is on the Committee.
- JPIA Finance Committee- Director Rupp is Committee Vice-Chair
- RCEA Board – Director Woo is on the Board and Director Fuller is the alternate.
- RREDC Board – Director Latt is on the Board and Director Lindberg is the alternate.
- LAFCO – This is an elected position; no Board members are on the commission.
- ACWA-JPIA Executive Committee- Director Rupp was elected to the committee.

2. HBMWD Committees:

- Audit Committee – This is a standing committee comprised of the Secretary/Treasurer and one additional Board member. David Lindberg is serving as the second Board member.
- Board Policy and Evaluations Committee- This is an ad-hoc committee to review the Board Policy Manual; the evaluation process for the General Manager and Legal Counsel; and assist the Board in making any changes to improve the manual and evaluation process. The committee is composed of the Board President and one additional member who is nominated by the President and approved by the Board. Director Rupp is serving as the second Board member.
- Mad River Policy Committee-This is an ad-hoc advisory committee formed to help protect the District's interest in the Mad River. The committee will be able to attend meetings, and report back to Board the outcomes and recommend any actions to ensure the Mad River watershed is protected. The committee is composed of the General Manager, Board President and one additional Board member who is nominated by the President and approved by the Board, OR two Board members approved by the Board and the General Manager. Directors Latt and Fuller are on the committee.
- Education and Outreach Committee-This is an ad-hoc advisory committee to provide education and outreach to the public on various topics as needed. Director Lindberg are on the committee.
- Water Resource Planning Advisory Committee- This is an ad-hoc advisory committee to provide advice and counsel to the Board of Directors regarding protection of the District's water rights, and additional beneficial use of water pursuant to the District's water rights permits. Directors Rupp and Woo are on the committee.
- Water Resource Planning-Instream Flow Committee – This is an ad-hoc committee to support planning and assessment work to determine the feasibility of an instream flow dedication in the Mad River. The committee is composed of two Board members, appointed by the President (with the consent of the majority of the Board) and the General Manager. Directors Fuller and Woo are on the committee.
- Water Resource Planning-Transport Committee – This is an ad-hoc committee to assist with market research, assessment, and identification of potential agencies/districts which may be viable candidates for a water transfer in accordance with the District's Term Sheet for Transfer of Water. The committee is composed of two Board members, appointed by the President (with the consent of the majority of the Board) and the General Manager. Directors Rupp and Latt are on the committee.
- Water Task Force – This is an ad-hoc committee comprised of one Board/Council member and one management representative from the District and each of the Municipalities and the RLCSD. The Task Force is convened on an as needed basis to address items of significance for the regional water system. The President has

- Water Task Force – This is an ad-hoc committee comprised of one Board/Council member and one management representative from the District and each of the Municipalities and the RLCSD. The Task Force is convened on an as-needed basis to address items of significance for the regional water system. The President has served as our Board representative and the General Manager as our staff representative. Director Latt is currently serving as the alternate Board representative.
- Website and Social Media Committee-this is an ad-hoc committee to provide advice and direction to upgrade the District's website and on the use of social media. The committee is composed of two Board members appointed by the President and both the General Manager and the Business Manager.
- Trinity County Master Lease Committee -this is an ad-hoc committee comprised of two Board members and the General Manager and the Business Manager. The District holds a lease agreement (Master Lease) with Trinity County and this Committee is advisory in nature. Any action shall be presented to the Board at Board Meeting. Directors Rupp and Latt currently serve on the committee.

3. Legislative Committee-

There has been some discussion by Directors about creating a Legislative Committee for our District. If the Board would like to pursue this, attached for your reference, and, as a possible starting point, is a copy of the ACWA State Legislative Committee's Guidelines dated January 2018.

Board of Directors
Committee Assignments 2023

Officers of the District	Incumbent/Member	Term
President	Neal Latt	Until new appointment by Board (odd numbered years)
Vice President	Michelle Fuller	Until new appointment by Board
Secretary-Treasurer	J. Bruce Rupp	Until new appointment by Board
Assistant Secretary Treasurer	David Lindberg	Until new appointment by Board
General Manager	John Friedenbach	Until new appointment by Board
Attorney	Ryan Plotz and Russ Gans of Mitchell, Brisso, Delaney & Vrieze	Until new appointment by Board
Auditor	R.J. Riccariardi, Inc (O'Connor)	Until new appointment by Board
Other Assignments/Appointments		
ACWA Region 1 Board Member	J. Bruce Rupp	Next Election
ACWA-JPIA Board Member	J. Bruce Rupp (regular) John Friedenbach (alternate) Michelle Fuller (alternate)	Until new appointment by Board
JPIA Employee Benefits Committee	J. Bruce Rupp	Until new appointment
JPIA Executive Committee	J. Bruce Rupp	Until new appointment
ACWA Finance Committee, Vice Chair	J. Bruce Rupp	Until new appointment
RREDC Board Member	Neal Latt (regular) David Lindberg (alternate)	Until new appointment by Board
RCEA Board Member	Sheri Woo (regular) Michelle Fuller (alternate)	Until new appointment by Board
Countywide RDA Oversight Board Member	J. Bruce Rupp	Until Next Election Cycle

Board of Directors
Committee Assignments 2023

Committee Assignments (Charters Attached)		
Audit Committee	J. Bruce Rupp with David Lindberg	Secretary/Treasurer is standing member and second Director appointed year-to-year
Committee Assignments (Con't) (Charters Attached)		
Water Task Force	One Board/Council member and one management representative from District and each Municipality (may also include a representative from wholesale industrial customer) and Ruth Lake CSD HBMWD Members: President Sheri Woo and GM Alternate: David Lindberg	Until new appointment
Water Resource Planning Advisory Committee	Bruce Rupp and Sheri Woo	Until new appointment
Committee to Support and Advance Local Water Sales and Advance Consideration of "Transport" Option	J. Bruce Rupp and Neal Latt	Until new appointment
Committee to Support Consideration of an Instream Flow Dedication in the Mad River	Sheri Woo and Michelle Fuller	Until new appointment
Board Policy & Evaluations Committee	Neal Latt and J. Bruce Rupp	Until new appointment
Education and Outreach Committee	David Lindberg and Michelle Fuller	Until new appointment
District Website Social Media Ad-Hoc Committee	Sheri Woo and Michelle Fuller, Business Manager	Until new appointment
Mad River Policy Committee	Director Latt and Director Fuller	Until new appointment
Trinity County Master Lease Committee	Director Rupp and Director Latt	Until new appointment

Committee	Prior Members	Status
Ad Hoc Committee for Negotiating Wholesale Contracts	Neal Latt Bruce Rupp	Inactive Committee
Joint Agency Aquatic Invasive Species Committee	Sheri Woo Michelle Fuller	Inactive Committee
Agenda Review Committee	Board President & Secretary / Treasurer	

ACWA State Legislative Committee's Guidelines for Taking Positions on Legislation

Last Revised January 2018

Background

A number of controversial bills are introduced each year in the California Legislature. It is always important to understand how ACWA takes positions on legislation. An explanation of that process follows, including details on ACWA's State Legislative Committee's Annual Planning Meeting.

State Legislative Committee: A Definition

ACWA's State Legislative Committee (the Committee) is a standing and limited committee composed of not more than four representatives from each of ACWA's ten geographically-based regions, for a total of not more than forty members. Representatives are: (1) nominated by an ACWA member agency; (2) recommended from that pool of candidates by the Chair of the respective region (in most cases in consultation with the region's board) to the ACWA President; and (3) appointed by ACWA's President for a two-year term.

The Role of ACWA Members and the Committee's Annual Planning Meeting

To establish priorities for the legislative session, each summer the Committee notifies all ACWA member agencies via announcements in ACWA News, via e-mail and through a direct letter to the agency General Manager that the Committee is accepting proposals for legislation to review and consider for sponsorship or support. ACWA's State Legislative Department compiles the proposals, completes a thorough analysis of each submission, and provides it to Committee Members with a recommendation for action. The Committee then reviews the proposals in the fall at its annual planning meeting and determines legislative priorities for the following year, including which proposals will or will not be sponsored or supported by ACWA.

Committee Meetings

During the regular legislative session, which begins in January of odd-numbered years, the Committee meets approximately every three weeks, for a total of ten meetings a year, to review legislation. Special meetings may be called on an as-needed basis. ACWA positions on legislation are determined by a vote of the Committee (i.e., Committee Members and approved alternates) based on analyses and recommendations prepared by ACWA legislative staff. Analyses are sent to members of the Committee and other ACWA members, as requested, in one or more electronic mailings before each Committee meeting. The Committee discusses each bill during its meetings and votes on positions to guide ACWA staff advocacy efforts on the legislation.

ACWA's Positions on Legislation

The Committee takes positions on legislation that, if enacted, would impact ACWA members. The Committee may take the following positions on legislation: Oppose, Support, Oppose Unless Amended, Support if Amended, Not Favor, Favor, Not Favor Unless Amended, Favor if Amended, and Watch (neutral). ACWA's legislative staff testifies at hearings and lobbies

legislators and staff through meetings and member agency contacts on all positions except Watch, Favor and Not Favor. For Favor and Not Favor positions, written communication of ACWA's position is provided to the legislator.

Positions are not normally taken on legislation if member agencies are on opposite sides of an issue. Exceptions include legislation that, if enacted, would establish poor precedent if applied broadly to ACWA member agencies.

If a particular bill requires further review before consensus on an official ACWA position can be determined, policy subcommittees may be formed to assist the Committee's review of proposed legislation.

Motions During Debate

When bringing or debating a motion before the State Legislative Committee, the following process will apply. The three steps for bringing a motion before the State Legislative Committee (committee) are:

- (a) A Committee Member makes a motion
- (b) Another Committee Member seconds the motion
- (c) The Chair states the motion

Once the motion has been stated by the Chair, it is open to formal discussion. While only one motion can be considered at a time, and a motion must be disposed of before any other question is considered;

- (a) A motion may be amended before it is voted on, either by the consent of the Committee Members who moved and seconded, or by a new motion and second, which is then approved by the Committee.
- (b) A motion may be tabled before it is voted on by motion made to table, which is then seconded and approved by the Committee.
- (c) A motion may be rejected without further discussion of or action on the motion by a motion of "objection to consideration," which is then seconded and approved by the Committee.
- (d) Further discussion of a motion can be terminated by a motion "to call the question," which is then seconded and approved by the Committee. Any Committee Member, including the Chair, may make or second a motion.

Amendment Development Process

If the Committee takes an Oppose Unless Amended or Support if Amended position, the Committee will typically discuss the concepts for the amendments at the meeting. Then a Committee Member(s) or ACWA's legislative staff, in consultation with Committee Members as needed, will develop the amendments after the meeting.

In some situations, a Committee Member, staff or a guest may develop an amendment set for consideration by the Committee at the meeting. In order to facilitate an informed decision by the Committee, it is the Committee's policy to have proposed written amendment sets

available for review by the Committee as soon as is feasible. Therefore, absent extenuating circumstances, proposed written amendments should be provided to ACWA staff for distribution to the Committee at least forty-eight hours in advance of the Committee meeting. If extenuating circumstances exist so that a guest cannot provide an amendment set to staff 48 hours in advance of the meeting, a guest may ask a Committee Member to present the amendment set (as opposed to guests distributing amendment sets at the meeting without any prior vetting).

Information Sharing

To provide adequate information to the entire ACWA membership, the Committee sponsors an annual Legislative Symposium, provides state legislative updates in ACWA News, posts positions and other information on the State Legislative Committee page of ACWA's Web site, and sends out advisories and alerts on key legislation. State Legislative Committee Members may access information on the State Legislative Committee page by logging in on acwa.com and navigating to the My ACWA tab > ACWA Committees > State Legislative Committee > 2022 State Legislative Committee Meeting Materials (Members Only). ACWA's legislative department is available to provide specific information on bills, and Committee Members are encouraged to communicate ACWA positions on priority legislation at the region level. ACWA's State Legislative Department appreciates being informed by ACWA members of positions taken by ACWA members on legislation.

For more information, contact Adam Quiñonez, ACWA Director of State Relations, at (916) 441-4545 or adamq@acwa.com.

Humboldt Bay Municipal Water District

To: Board of Directors

From: Contessa Dickson

Date: January 11, 2023

Re: Board Secretary Conference/Minutes Recommendation

Background/Current

Contessa attended the CSDA Board Secretary/Clerk conference held in Monterey November 6-8, earning a certificate of completion. She expresses her appreciation for the opportunities to continue her education in this field and to network with her new peers.

One of the topics was **Best Practices for Taking and Processing Meeting Minutes**. During this session she attended, led by Stephanie Smith with Best, Best & Krieger LLP, it was highlighted there are 4 basic types of minute-taking: **Verbatim, Summary, Brief Summary, and Action**. The question was posed: who still creates summary minutes? Out of the group of about 150 attendees, Contessa and one other person raised their hands. Throughout the 1 ½ hour training, Ms. Smith advocated for Action Minutes and passionately advised them all to propose to their Boards to consider utilizing Action Minutes. Stating, the law only requires an accurate record of the action taken. Her key points for justifying Action Minutes are:

- Action Minutes are the safest and most efficient form of minutes.
- Board member's "tones" in non-Action Minutes can be mistaken resulting in disagreements or wasting time in future meetings due to discussions.
- Summary minutes are dangerous. Content can be misinterpreted giving future prospective plaintiffs ammunition for litigation.
- It is up to any interested parties to attend a meeting or research a topic.
- Any information needed from previous Board meetings should be attainable utilizing the Action Minutes, agenda, and/or Board packet.

After the conference, Contessa researched some of our local Districts and neighboring counties to see what form of minutes were in practice. From the 9 surveyed, it was found only 2 were preparing brief summary minutes, the other 7 were action/brief minutes. Although our minutes are considered Summary Minutes, they are not brief compared to the others. Attached are examples of Brief Summary Minutes by McKinleyville CSD and Action Minutes by Trinity Waterworks District 1.

Minutes surveyed were from:

Mendocino County BOS	Trinity County Water Works
McKinleyville CSD	Blue Lake CSD
City of Arcata	City of Eureka
Siskiyou Flood Control & Water conservation District	Shasta Community Services District
Humboldt CSD	

Staff Recommendation

Staff recommends the Board approve moving to Action and Brief Summary minutes. Attached are examples of Action/Brief Summary, from a portion of our minutes from November. Followed by the actual written minutes.

ACTION MINUTES SAMPLE

1. REPORTS (from STAFF)

1.1 Engineering

- a. Collector 2 Rehabilitation Project: NO ACTION
- b. Essex Onsite Sodium Hypochlorite Generation: NO ACTION
- c. TRF Generator: NO ACTION
- d. Collector Mainline Redundancy Project
 - i. Match Commitment letter
On motion by Director Rupp and seconded by Director Woo, the Board voted 5-0 to approve the Match Commitment Letter.
 - ii. Collector Mainline extension project: NO ACTION
CalOES approved the time extension from December 4, 2023 to December 4, 2024 for the completion of Phase 1 of the project.
- e. Reservoirs Seismic Retrofit Project
 - i. GHD Scope of Services for Phase 2
On a motion by Director Woo, seconded by Director Lindberg, the Board voted 5-0 to award the Phase 2 engineering contract of the project to GHD.

Status report re: other engineering work in progress: NO ACTION

1.2 Financial

- a. October 2023 Financial Statement & Vendor Detail Report: NO ACTION
Mr. Friedenbach shared the October 2023 financial report, prepared by Ms. Harris.
- b. October 2023 Fieldbrook-Glendale contract revenue and Expense Summary: NO ACTION
- c. Mr. Friedenbach provided an overview of the revenue and expense summary.

CURRENT SUMMARY MINUTES

10. REPORTS (from STAFF)

10.1 Engineering

- a. Collector 2 Rehabilitation Project

Denise Monday, DWR Grant Liaison for Humboldt County conducted a site visit and provided positive comments. The construction is complete and the equipment has been moved off of the site. The final report with pre and post well draw down testing and as-builts is in process. The October pay request of \$108,205 was made. There will be one more pay request, including the five-percent retention.
- b. Essex Onsite Sodium Hypochlorite Generation

Most of the equipment is here except for a few minor items. They are making good progress and pushing forward on the design for installation and integration.
- c. TRF Generator

Mr. Stevens explained they are moving forward and 60% design should be completed this month.
- d. Collector Mainline Redundancy Project
 - i. Match Commitment Letter

Mr. Stevens explained that the match has increased by \$924,000 dollars. The Board asked questions regarding the additional cost. On a motion by Director Rupp and seconded by Director Woo, the Board voted 5-0 to approve the Match Commitment Letter.
 - ii. Collector Mainline extension project

CalOES approved the time extension from December 4, 2023 to December 4, 2024 for the completion of Phase 1 of the project.
- e. Reservoirs Seismic Retrofit Project
 - i. GHD Scope of Services for Phase 2

Mr. Stevens provided the scope of services for Phase 2 of the project. On a motion by Director Woo, seconded by Director Lindberg, the Board voted 5-0 to award the Phase 2 engineering contract of the project to GHD.
- f. Status report re: other engineering work in progress

Nothing to report.

**Humboldt Bay Municipal Water
District 828 7th Street, Eureka**



**Minutes for Regular Meeting of the Board of Directors
November 9, 2023**

10.2 Financial

a. October 2023 Financial Statement & Vendor Detail Report

Mr. Friedenbach shared the October 2023 financial report, prepared by Ms. Harris, and highlighted the balances. The General Account balance is at \$2 million, the various investments balance is \$10 million, Advanced Charges are at \$5 million and the General Reserves are at \$2.7 million. Regarding expenses, the District still has not received a bill from PG&E for power for pumping. This is the third month in a row the bill has not been received from PG&E. The vendor expenses for October total \$998,166.89. Director Rupp reviewed the bills and stated everything was in order. On motion by Director Rupp, seconded by Director Lindberg, the Board voted 5-0 to approve October financial report and vendor detail in the amount of \$998,166.89.

b. October 2023 Fieldbrook-Glendale contract revenue and Expense Summary

Mr. Friedenbach provided an overview of the revenue and expense summary. The Board had no questions.

SAMPLE

MINUTES OF THE REGULAR MEETING OF THE MCKINLEYVILLE COMMUNITY SERVICES DISTRICT HELD ON WEDNESDAY, AUGUST 2, 2023 AT 6:00 P.M. IN PERSON AT AZALEA HALL – 1620 PICKETT ROAD, MCKINLEYVILLE, CALIFORNIA and TELECONFERENCE Via ZOOM & TELEPHONE: ZOOM MEETING ID: 859 4543 6653 (<https://us02web.zoom.us/j/85945436653>) and TOLL FREE: 1-888-788-0099

AGENDA ITEM A. CALL TO ORDER:

A.1 Roll Call: The meeting was called to order at 6:00 p.m. with following Directors and staff in attendance in person at Azalea Hall:

- | | |
|---|---|
| Greg Orsini, President | Pat Kaspari, General Manager |
| Scott Binder, Vice President | Joey Blaine, Board Secretary |
| James Biteman, Director | James Henry, Operations Director |
| David Couch, Director | Lesley Frisbee, Parks & Recreation Director |
| Dennis Mayo, Director (Remote via Zoom) | Nicole Alvarado, Finance Director |
| | Norman Schwenn, IT Technician |

Motion: It was moved to allow Director Mayo to participate remotely per the guidance of AB 2449.

Motion by: Director Couch; **Second:** Director Binder

There were no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

A.2 Pledge of Allegiance: The Pledge of Allegiance was led by Director Couch.

A.3 Additions to the Agenda: There were no additions or changes to the agenda.

A.4 Approval of the Agenda:

Motion: It was moved to approve the agenda.

Motion by: Director Binder; **Second:** Director Biteman

There were no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

A.5 Closed Session Discussion

There was no closed session.

AGENDA ITEM B. PUBLIC HEARINGS:

No public hearing scheduled.

AGENDA ITEM C. PUBLIC COMMENT AND WRITTEN COMMUNICATIONS:

No public comments were received.

AGENDA ITEM D. CONSENT CALENDAR:

D.1 Consider Approval of the Minutes of the Board of Directors Regular Meeting on June 7, 2023 and Special Meeting on June 12, 2023

- D.2 Consider Approval of June 2023 Treasurer's Report
- D.3 Compliance with State Double Check Valve (DCV) Law
- D.4 Consider Approval of the Senior Center Management Services and Usage Agreement between McKinleyville Community Services District (MCSD) and the McKinleyville Senior Center
- D.5 Consider Approval of Agreement between McKinleyville Union School District and the McKinleyville Community Services District for the Provision of After School Leaders to the 21st Century Community Learning Center After School Program at Dows Prairie Elementary School and Morris Elementary School
- D.6 Consider Adoption of Resolution 2023-13 Amending the McKinleyville Community Services District Records Retention Policy
- D.7 Consider Approval of Contract with LACO for Third Party Testing and Observation for 4.5MG Tank Construction
- D.8 Approve FY21-22 Single Audit
- D.9 Consider Approval of MOU to be executed with local school PTO's for the provision of Dances for Humboldt County Middle School Students
- D.10 Consider Approval of Resolution 2023-16 Designating Subrecipient's Authorized Agent for the Hazard Mitigation Grant Program and the Pre-Disaster Mitigation Program
- D.11 Consider Director Binder's Attendance of the ACWA Region 1 Program And Tour, August 11, 2023 in Middletown, CA

General Manager Kaspari requested items D.1 and D.10 be pulled from the consent calendar.

Director Binder recused himself from voting on D.4 due to a conflict of interest, and asked that the item be pulled from the agenda so that he could abstain from voting.

Motion: It was moved to approve the Consent Calendar sans items D.1, D.4, and D.10.

Motion by: Director Couch; **Second:** Director Biteman

There were no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

- D.1 Consider Approval of the Minutes of the Board of Directors Regular Meeting on June 7, 2023 and Special Meeting on June 12, 2023

Board Secretary Blaine noted that a correction to the June 7, 2023 minutes was necessary under item E.7. The minutes read "**Motion Summary:** Motion Did Not Pass." After amendment, the minutes were to read "**Motion Summary:** Motion passed."

Motion: It was moved to approve to approve the minutes of the Board of Directors Regular Meeting on June 7, 2023 as amended and Special Meeting on June 12, 2023

Motion by: Director Binder; **Second:** Director Biteman

There were no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

- D.4 Consider Approval of the Senior Center Management Services and Usage Agreement between McKinleyville Community Services District and the McKinleyville Senior Center

Motion: It was moved to approve the Senior Center Management Services and Usage Agreement between McKinleyville Community Services District and the McKinleyville Senior Center

Motion by: Director Couch; **Second:** Director Biteman

There were no comments from the Board or public.

Roll Call: Ayes: Biteman, Couch, Mayo and Orsini Nays: None Abstain: Binder Absent: None

Motion Summary: Motion Passed.

D.10 Consider Approval of Resolution 2023-16 Designating Subrecipient's Authorized Agent for the Hazard Mitigation Grant Program and the Pre-Disaster Mitigation Program

General Manager Kaspari noted the resolution had been amended to reflect the wording required by FEMA and designate General Manager as well as the Finance Director and Board President as authorized agents for the District.

Motion: It was moved to approve Resolution 2023-16, as amended.

Motion by: Director Couch; **Second:** Director Biteman

There were no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

AGENDA ITEM E. CONTINUED AND NEW BUSINESS:

Items below are in the order in which they took place.

E.1 Consider Adoption of Resolution 2023-14 Recognizing, Honoring, and Commending Brad Hayman for Ten (10) Years of Service

Parks and Recreation Director Frisbee gave an overview of the item and read Resolution 2023-14 into the record.

Board members and staff gave their personal thanks for Brad's service to MCSD.

Brad Hayman expressed appreciation for his time of employment at MCSD.

Motion: It was moved to adopt Resolution 2023-14 recognizing and honoring Brad Hayman for his ten years of service to the McKinleyville Community Services District.

Motion by: Director Binder; **Second:** Director Couch

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

E.2 Recognition of Staff Accomplishments from 2022-23 and Introduction of New District Staff Members (Information)

General Manager Kaspari overviewed the item.

The Board welcomed new staff and congratulated those promoted.

Finance Director Alvarado commended promoted and new staff.

Lisa Dugan, McKinleyville resident, commended the Board on the kindness and approachability of staff.

David Baldosser, MCSD Customer Service Supervisor, congratulated promoted staff on their accomplishments and welcomed new staff.

This was an information only item. No action taken.

E.3 Consider Release of Response to Humboldt County Civil Grand Jury Report on Incorporation

General Manager Kaspari reviewed the item.

Legal Counsel Gans explained that he had conferred with County counsel and confirmed that there was minimal concern regarding a violation of confidentiality if the Board continued moving forward with staff recommendation.

Director Mayo commented on the content of the Grand Jury report.

President Orsini and Director Binder highlighted the importance and Board priority of transparency.

Motion: To release the MCSD response to the Humboldt County Civil Grand Jury Report on Incorporation.

Motion by: Director Couch; **Second:** Director Binder

There we no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

E.4 Consider Topics for Joint McKinleyville Municipal Advisory Committee (MMAC) and MCSD Board Meeting in October (Action)

General Manager Kaspari overviewed the item.

Director Mayo suggested the discussion topic of traffic circulation on Central Avenue.

Director Biteman suggested the discussion topic of clarity of the role of MMAC and the relationship between MMAC and MCSD in the governance of McKinleyville.

Lisa Dugan, Chair of the MMAC, gave public comment and reviewed the MMAC's mission.

Motion: To bring the topics of potential McKinleyville incorporation, MCSD Measure B Reauthorization to support Parks and Recreation, traffic circulation on Central Ave, bringing McKinleyville's voice to County issues, and the roll of MMAC and the relationship between MMAC and MCSD in Governance of McKinleyville to the Joint MMAC and MCSD Board Meeting in October.

Motion by: Director Mayo; **Second:** Director Binder

There we no comments from the Board or public.

Roll Call: Ayes: Binder, Biteman, Couch, Mayo and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

E.6 Consider Approval of Naming of a Portion of the Baduwa't Public Access Project in Memory of Former Board Director George Wheeler (Action)

General Manager Kaspari reviewed the item.

The Board reviewed Director Wheeler's legacy and considered the merits of the proposed naming.

Meghan O'Brien, McKinleyville resident, commented on Director Wheeler's legacy and shared a similar message from resident Joyce King.

John Corbett, McKinleyville resident, encouraged the consultation of both the Wiyot and Yurok tribes. He also commented on Director Wheeler's merit.

Jennifer Wheeler, McKinleyville resident and Director Wheeler's wife, spoke about Director Wheeler's lifelong public service.

Lisa Dugan, McKinleyville resident, spoke on the inspiration Director Wheeler was to the community.

President Orsini reflected on his relationship with Director Wheeler during his time as MCSD's General Manager.

Motion: To approve resolution 2023-15, plant native trees and erect a sign in memory of Director George Wheeler on a portion of the Baduwa't Public Access Project.

Motion by: Director Mayo; **Second:** Director Binder

Roll Call: Ayes: Binder, Biteman, Couch, Mayo, and Orsini Nays: None Absent: None

Motion Summary: Motion Passed

E.5 Consider the Regular Board Meeting Dates, Time, and Location for the 2024 Calendar Year (Information)

This was an information only item. No action taken.

E.7 Review and Discuss Annual Board Self-Evaluation (Information/Discuss)

President Orsini prompted the Board members to individually describe what excited and prompted them to join the Board. A subsequent discussion took place.

Director Biteman expressed concern the MCSD's role may not be clear to the community and would like to think of how to change that as a Board. President Orsini challenged the Board Members to bring two ideas on how to inform the Public of the District's roll in McKinleyville to the next Strategic Planning meeting.

This was an information only item. No action was taken.

AGENDA ITEM F. REPORTS

F.1 ACTIVE COMMITTEE REPORTS

- a. **Parks and Recreation Committee (Binder/Biteman):** Did not attend.
- b. **Area Fund (John Kulstad/Binder):** Did not meet.
- c. **Redwood Region Economic Development Commission (Biteman/Mayo):** Director Biteman gave a brief report.
- d. **McKinleyville Senior Center Advisory Council (Binder/Couch):** Director Binder gave a brief report on the activities of the Senior Center.
- e. **Audit and Finance (Orsini/Biteman):** Did not meet.
- f. **Employee Negotiations (Couch/Mayo):** Did not meet.
- g. **McKinleyville Municipal Advisory Committee (Orsini/Binder):** Director Orsini gave a brief report on the activities of MMAC.
- h. **Ad Hoc Community Forest Committee (Mayo/Orsini):** Did not meet.

F.3 STAFF REPORTS

- a. **Finance and Administration Department (Nicole Alvarado):** Finance Director Alvarado gave a brief update on the success of transferring funds from CalTrust to California Class.
- b. **Operations Department (James Henry):** Operations Director James Henry had nothing further to add to his written report.
- c. **Parks & Recreation Department (Lesley Frisbee):** Recreation Director Lesley Frisbee noted that the PARC changed their meeting to the 3rd Wednesday of the month.
- d. **General Manager (Patrick Kaspari):** General Manager Kaspari highlighted that a significant portion of the cost savings reported represent real cash savings. He also gave a brief update on the 4.5 MG Tank project and the Central Ave Mainline Rehabilitation project.

F.4 PRESIDENT'S REPORT:

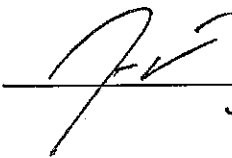
No report.

F.5 BOARD MEMBER COMMENTS, ANNOUNCEMENTS, REPORTS AND AGENDA ITEM REQUESTS:

None

G. ADJOURNMENT:

Meeting Adjourned at 8:37 p.m.



Joey Blaine, Board Secretary

TRINITY COUNTY WATERWORKS DISTRICT #1
BOARD OF DIRECTORS
REGULAR BOARD MEETING
320 Reservoir Road
Hayfork, CA

MEETING MINUTES
August 15, 2023

Director Diane Yates
Director Melody McLearn
Director Kenneth Wiley

Shane McDonald – Operations Manager
Brandy Perrone – Clerk of the Board

1. Meeting called to order in open session at 2:00 PM

CONSENT CALENDAR

2.a Approved the minutes of the July 18th, 2023, Regular Board Meeting.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

2.b Approved the minutes of the July 26th, 2023, Special Board Meeting.

Received public comment from Craig Hair, Jr.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

COMMUNICATIONS/CORRESPONDENCE: None

PUBLIC COMMENTS/DISCUSSION:

Received public comments from Evelyn Haynes, Dennis Rourke and Mike Cherney.

OFFICE MANAGER REPORT:

- 5.a Appointment of Diane Yates to position of Chairman.

Received public comment from Dennis Rourke.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

- 5.b Accepted letter of resignation of Daniel Bowman from the Trinity County Waterworks Board.

Motion: Kenneth Wiley **Second:** Melody McLearn **Carried**
Ayes: Yates, McLearn, Wiley

- 5.c Motion to place advertisement in the Trinity Journal for board vacancy from 8/23/23 to 9/13/23.

Received public comment from Dennis Rourke.

Motion: Kenneth Wiley **Second:** Melody McLearn **Carried**
Ayes: Yates, McLearn, Wiley

- 5.d Approved contract for Craig Hair, Jr.'s OPEB retirement. Contract to be sent to Craig Hair, Jr., for signing.

Received public comment from Dennis Rourke, Victoria Schoelen and Craig Hair, Jr.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

- 5.e Review and accept contract with Craig Hair Construction for assistance finalizing the Ewing Reservoir grant.

Received public comment from Craig Hair, Jr.

Motion: Kenneth Wiley **Second:** Melody McLearn **Carried**
Ayes: Yates, McLearn, Wiley

- 5.f** Accept Resolution 2023-0810 allowing an exemption for APN 014-180-95-00 from mandatory sewer connection.

Received public comment from Mike Cherney, Dennis Rourke and Craig Hair, Jr.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

- 5.g** Approved emergency water applications for parcels 014-420-67-00 and 017-440-07-00 for 20,000 gallons per month.

Motion: Kenneth Wiley **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

OPERATIONS MANAGER REPORT:

- 6.a** Operations Manager, Shane McDonald, updated the board on the water quality. Board requests a letter to be sent out with billing and a notice to be put on website updating the public.

Received public comments and questions from Dennis Rourke, Arnold Bridges, Victoria Schoelen, Craig Hair, Jr. and Mike Cherney.

- 6.b** Approve purchase of a Honda 4 stroke compactor from Bayley Lumber for \$2800.

Received public comment from Craig Hair, Jr.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

- 6.c** Approve purchase of 2' steel plates to upgrade dump truck with sides. Steel costs \$1700.

Motion: Melody McLearn **Second:** Kenneth Wiley **Carried**
Ayes: Yates, McLearn, Wiley

- 6.d** Director Wiley recommended Morgan Rourke to fill the vacancy. Director McLearn recommended Angenett Taft to fill the vacancy. The board allowed applicants to present themselves.

Received public comments from Arnold Bridges, Morgan Rourke, Craig Hair, Jr., Dennis Rourke and Angenett Taft.

Motion to recommend Angenett Taft to the Trinity County Board of Supervisors to fill vacant seat on the Trinity County Waterworks Board of Directors for term ending on 12/31/2026.

Motion: Melody McLearn **Second:** Diane Yates **Carried**

Ayes: Yates, McLearn

Nays: Wiley

- 6.e Operations Manager, Shane McDonald, informed the board that he had changed gate codes and locks after the break-in at the sewer plant. New dusk till dawn lights are currently being installed at both facilities.

Received public comments from Victoria Schoelen, Angenett Taft and Arnold Bridges.

CONFERENCE/EDUCATION SCHEDULE: None

COMMITTEE REPORTS:

- 7.a SDRMA Report: None

BUDGET REPORT/BUDGET TRANSFERS/BILLS PAID:

- 8.a Motion to accept reviewed and ratified August 2023 bills.

Motion: Kenneth Wiley **Second:** Melody McLearn **Carried**

Ayes: Yates, McLearn, Wiley

- 8.b Budget Transfers: None

- 8.c Motion to accept budget report.

Motion: Kenneth Wiley **Second:** Melody McLearn **Carried**

Ayes: Yates, McLearn, Wiley

SEWER: None

CLOSED SESSION: Brown Act 54957- The Board may convene to closed session on matters of personnel or litigation.

ADJOURN at 3:38 PM

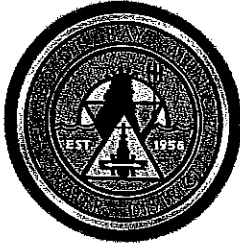
TRINITY COUNTY WATERWORKS DISTRICT #1

Diane Yates, Chairman
Board of Directors,
Trinity County Waterworks District #1

Attest:

Brandy Perrone
Clerk of the Board

ENGINEERING



HUMBOLDT BAY MUNICIPAL WATER DISTRICT

828 Seventh Street • Eureka, California 95501-1114
PO Box 95 • Eureka, California 95502-0095
Office 707-443-5018 Essex 707-822-2918
Fax 707-443-5731 707-822-8245
EMAIL OFFICE@HBMWD.COM
Website: www.hbmwd.com

BOARD OF DIRECTORS
NEAL LATT, PRESIDENT
MICHELLE FULLER, VICE-PRESIDENT
J. BRUCE RUPP, SECRETARY-TREASURER
DAVID LINDBERG, ASSISTANT SECRETARY-TREASURER
SHERI WOO, DIRECTOR

GENERAL MANAGER
JOHN FRIEDENBACH

December 11, 2023

VIA EMAIL: ContractorShane.Sweeney@CalOES.ca.gov
Mr. Shane Sweeney
Grants Specialist – Coastal Unit
CalOES
3650 Schriever Avenue
Mather, CA 95655-4203

Subject: HMGP #DR4558-PJ0389
Phase 1 Deliverables
Humboldt Bay Municipal Water District TRF Power Resiliency Generator Project

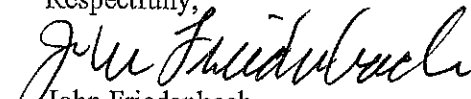
Dear Shane,

We are providing the following Phase 1 deliverables documents for your review:

1. Engineering Designs at 60%
2. Engineering Specifications at 60%
3. Geotechnical Investigation Report – KC Engineering Company – June 26, 2023
4. Environmental Studies – ENPLAN – June 29, 2023
5. CEQA Documentation
6. Phase 1 Cultural Resource Inventory Report – DZC Archaeology – July 2023 -**CONFIDENTIAL**

If you have any questions, please do not hesitate to contact us.

Respectfully,


John Friedenbach
General Manager

Cc: Bryan Gentles, Pace Engineering

John Friedenbach

From: Sweeney, Shane (Contractor)@CalOES.ca.gov
<ContractorShane.Sweeney@CalOES.ca.gov>
Sent: Friday, December 22, 2023 7:57 AM
To: John Friedenbach
Cc: 'Chris Harris'; Lacey, Christine@CalOES
Subject: RE: DR4569-PJ0538 FEMA Project Status Update

Hi John,

Please see below for my latest FEMA update.

DR4569-538: Humboldt Bay Municipal Water District (RFI submitted Dec 2022)

- o Cultural Resources
 - Tribal consultation materials submitted 5/9/23, edits received 8/18/23, resubmitted 8/22/23, signed 8/23/23, mailed 8/28/23, provided updated log and receipts 8/29/23, final log submitted 10/9/23
 - DPR523 forms submitted 11/1/23
 - SHPO package submitted 11/1/23, comments on SHPO letter received 11/21/23, resubmitted 11/21/23
- o Estimated Completion: January 2024 (pending SHPO consultation, REC)

Shane

From: John Friedenbach <friedenbach@hbmwd.com>
Sent: Thursday, December 21, 2023 12:08 PM
To: Sweeney, Shane (Contractor)@CalOES.ca.gov <ContractorShane.Sweeney@CalOES.ca.gov>
Cc: 'Chris Harris' <harris@hbmwd.com>
Subject: RE: DR4569-PJ0538 FEMA Project Status Update

Message is From an External Sender
This message came from outside your organization.

Hi Shane,
Can you please inquire with FEMA as to the current status of our Advance Assistance grant for the R. W. Matthews dam?
Thank you,

John Friedenbach
General Manager
Humboldt Bay Municipal Water District
www.hbmwd.com
707-443-5018 work
707-362-7509 cell

FINANCIAL

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
STATEMENT OF FUND BALANCES - PAGE 1 OF 2



<u>BANK ACCOUNT BALANCES AT MONTH-END</u>	December 31, 2023	December 31, 2022
GENERAL ACCOUNTS		
1. US Bank - General Account	1,390,438.77	3,880,510.55
2. US Bank - Xpress BillPay/Electronic Payments Account	5,775.62	5,117.33
<i>Subtotal</i>	1,396,214.39	3,885,627.88
INVESTMENT & INTEREST BEARING ACCOUNTS		
3. US Bank - DWR/SRF Money Markey AcCnt	29,796.70	303,421.18
4. US Bank - DWR/SRF Reserve CD Account	547,336.94	547,336.94
5. US Bank - PARS Investment Account	861,842.77	928,792.93
<i>Contributions = \$800,000 Disbursements = \$166,619</i>		
6. L. A. I. F Account - MSRA Reserve Account	460,123.29	447,094.05
7. CalTRUST - Restricted Inv. Account (Medium Term)	1,712,100.45	1,682,113.05
8. CalTRUST - DWFP Reserve Account (FedFund)	-	244,362.75
9. CalTRUST - ReMat Account (LEAF Fund)	-	1,162,426.45
10. CalTRUST - General Reserve Account (Short-Term)	4,605,814.04	2,392,163.51
<i>Total CalTRUST Accounts</i>	<i>6,317,914.49</i>	<i>5,481,065.76</i>
11. California CLASS - DWFP Reserve Account	255,162.21	-
12. California CLASS - ReMat Reserve Account	1,413,517.51	-
<i>Total California CLASS Accounts</i>	<i>1,668,679.72</i>	<i>-</i>
13. Humboldt County - SRF Loan Payment Account	144,027.71	280,861.90
14. Humboldt County - 1% Tax Account	182,445.72	869,386.41
15. Principle Investment Account	42,009.78	44,813.25
<i>Subtotal</i>	10,254,177.12	8,902,772.42
OTHER ACCOUNTS		
16. ReMat Deposit - Mellon Bank	27,000.00	27,000.00
17. Cash on Hand	650.00	650.00
<i>Subtotal</i>	27,650.00	27,650.00
TOTAL CASH	11,678,041.51	12,816,050.30

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
STATEMENT OF FUND BALANCES - PAGE 2 OF 2



<u>FUND BALANCES AT MONTH-END</u>	December 31, 2023	December 31, 2022
RESTRICTED FUNDS - ENCUMBERED		
1. Prior-Year Price Factor 2 Rebate	(11,848.50)	(14,560.10)
2. Prior-Year Restricted AP Encumbrances	(705,698.00)	(51,724.00)
3. Advanced Charges - 3x Tank Seismic Retrofit	(1,519,111.09)	(1,269,146.62)
4. Advanced Charges - Cathodic Protection Project	(124,999.96)	(124,999.96)
5. Advanced Charges - Collector 2 Rehabilitation	(704,531.18)	(997,238.62)
6. Advanced Charges - On-Site Generation of Chlorine	(676,906.17)	(1,097,466.45)
7. Advanced Charges - Redundant Pipeline	(387,782.70)	(311,792.49)
8. Advanced Charges - TRF Emergency Generator	(372,389.61)	(375,000.00)
9. 3AC Collected Funds - TRF Emergency Generator	(312,858.62)	(312,858.62)
10. Advanced Funding - FEMA, Shoreline Debris Removal	-	(37,075.62)
11. Advanced Funding - August Complex-Ruth Paving	(112,456.22)	(112,456.22)
12. Advanced Charges - Assist. Spillway Seismic Grant	(23,333.32)	(23,333.32)
13. Advanced Funding - Eureka Cyber Security	(19,597.72)	(19,597.72)
14. Advanced Charges - Essex Facility Expansion	(105,400.00)	(105,400.00)
15. Advanced Charges - Capital Financing/Debt Service	(324,402.04)	(162,200.02)
<i>Subtotal</i>	(5,401,315.13)	(5,014,849.76)
RESTRICTED FUNDS - OTHER		
16. 1% Tax Credit to Muni's	(182,445.72)	18,048.38
17. DWR Reserve for SRF Payment	(29,796.70)	(303,421.18)
18. DWR Reserve for SRF Loan	(547,336.94)	(547,336.94)
19. Pension Trust Reserves	(861,842.77)	(928,792.93)
20. ReMat Deposit	(27,000.00)	(27,000.00)
21. HB Retail Capital Replacement Reserves	(198,680.12)	(151,561.53)
<i>Subtotal</i>	(1,847,102.25)	(1,940,064.20)
UNRESTRICTED FUNDS		
BOARD RESTRICTED		
22. MSRA Reserves	(460,123.29)	(447,094.05)
23. DWFP Reserves	(255,162.21)	(244,362.75)
24. ReMat Reserves	(1,413,517.51)	(1,162,426.45)
25. Paik-Nicely Development	-	(4,158.00)
26. Principle Investment Reserves	(42,009.78)	(44,813.25)
27. Northern Mainline Extension Study Prepayment	56.40	56.40
28. Blue Lake Rancheria Extension Study Prepayment	5,764.63	-
<i>Subtotal</i>	(2,170,756.39)	(1,902,798.10)
UNRESTRICTED RESERVES		
29. Accumulation for SRF Payment	(144,027.61)	(280,861.90)
30. General Fund Reserves	(2,114,840.13)	(3,683,108.78)
<i>Subtotal</i>	(2,258,867.74)	(3,958,338.24)
TOTAL NET POSITION	(11,678,041.51)	(12,816,050.30)

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
 REVENUE REPORT
 December 31, 2023

A. REVENUE RETURNED TO CUSTOMERS VIA PF2

	MTD RECEIPTS	YTD RECEIPTS	PRIOR YEAR	BUDGET	% OF BUDGET
1. Humboldt Bay Retail Water Revenue	34,708	186,531	163,822	350,000	53%
General Revenue					
Power Sales (Net ReMat)	0	0	33,746	125,000	0%
Tax Receipts (1% Taxes)	0	529,900	0	1,000,000	53%
2. Miscellaneous Revenue*	859	4,209	66,279	50,000	8%
<i>*Detail on following page</i>					
TOTAL PF2 REVENUE CREDITS	35,567	720,640	263,847	1,525,000	47%

B. DISTRICT REVENUE

	MTD RECEIPTS	YTD RECEIPTS	PRIOR YEAR	BUDGET	% OF BUDGET
3. Industrial Water Revenue					
Harbor District	0	0	200	0	0
<i>Subtotal Industrial Water Revenue</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>0</i>
4. Municipal Water Revenue					
City of Arcata	128,121	766,566	756,608	1,538,900	50%
City of Blue Lake	17,026	102,155	98,800	202,362	50%
City of Eureka	598,024	1,790,911	1,754,949	3,617,684	50%
Fieldbrook CSD	16,423	99,413	109,438	194,298	51%
Humboldt CSD	96,976	559,693	530,600	1,105,724	51%
Manila CSD	7,396	45,143	43,889	90,372	50%
McKinleyville CSD	105,702	633,464	618,158	1,266,298	50%
<i>Subtotal Municipal Water Revenue</i>	<i>969,669</i>	<i>3,997,344</i>	<i>3,912,441</i>	<i>8,015,638</i>	<i>50%</i>
TOTAL INDUSTRIAL & WHOLESALE REVENUE	969,669	3,997,344	3,912,640	8,015,638	50%

5. Power Sales					
Power Sales (ReMat Revenue)	0	0	69,877	300,000	0%
Interest (ReMat Revenue)	0	0	0	0	
TOTAL REMAT REVENUE	0	0	69,877	300,000	0%

6. Other Revenue and Grant Reimbursement					
HB Retail Capital Replacement Rev.	4,242	23,980	23,541		
FCSO Contract	50,370	145,154	158,973		
FEMA/CalOES Grant Revenue	0	152,968	376,395		
SWRCB In-Stream Flow Grant Revenue	0	14,653	5,243		
Quagga Grant Revenue	0	0	0		
Misc. Grant Revenue	0	1,120	0		
CalFire Healthy Forest Funding	0	0	0		
CalFire Fuel Reduction Funding	0	339,969	0		
Interest - Muni PF2 Retained	20	7,684	2,368		
Net Increase/(Decrease) Investment Accounts	124,650	273,965	(27,353)		
TOTAL OTHER/GRANT REVENUE	179,282	959,494	539,168		
GRAND TOTAL REVENUE	1,184,518	5,677,478	4,785,532	9,840,638	58%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
 MISCELLANEOUS REVENUE - DETAIL REPORT
 December 31, 2023

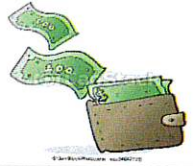


B. MISCELLANEOUS RECEIPTS (RETURNED TO CUSTOMERS VIA PF2)

	MTD RECEIPTS	YTD RECEIPTS
<u>Miscellaneous Revenue</u>		
Dividend - Principal Life	358	1,047
Fees - Park Use	-	-
Rebate - CALCard	420	647
Refund - Diesel Fuel Tax	-	200
Refunds - Miscellaneous	-	101
Reimb - Blue Lake SCADA/Internet Monthly Fees	-	-
Reimb. - Copies & Postage	1	134
Reimb. - Gas	-	-
Reimb. - Misc. Employee	-	-
Reimb. - Telephone	-	-
UB - Water Processing Fees	-	180
UB - Hydrant Rental Deposit/Use	-	-
<u>Ruth Area</u>		
Lease - Don Bridge	-	-
Rent - Ruth Cabin	80	1,800
Ruth Annual Lessee Water Fees	-	100
<hr/>		
TOTAL MISCELLANEOUS REVENUE	859	4,209

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MONTHLY EXPENDITURE REPORT - PAGE 1 OF 3
December 31, 2023

50%
Of Budget Year

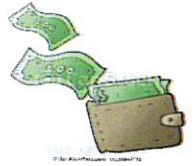


SALARY AND EMPLOYEE BENEFIT EXPENDITURES (S. E. B.)

	Month-to-Date	Year-to-Date	Prior Year	Budget	% of Budget
Compensation					
1. Wages - Regular	203,495.22	1,125,154.41	1,170,765.66	2,556,746	50%
2. Wages - Sick	8,466.91	46,968.00	71,724.14		
3. Wages - Vacation	12,355.30	114,843.24	121,056.45		
<i>Subtotal</i>	224,317.43	1,286,965.65	1,363,546.25	2,556,746	50%
4. Wages - Overtime	618.74	6,649.00	7,257.85	15,855	
5. Wages - Holiday (Worked)	1,816.32	5,437.19	4,797.58	15,855	
<i>Subtotal</i>	2,435.06	12,086.19	12,055.43	31,710	38%
6. Wages - Part-Time	3,036.99	32,300.49	26,677.80	115,430	28%
7. Wages - Shift Differential	819.44	5,634.84	5,644.65	12,156	46%
8. Wages - Standby	8,624.20	50,770.70	45,122.01	97,773	52%
9. Director Compensation	2,320.00	12,880.00	13,520.00	26,000	50%
10. Secretarial Fees	328.13	1,706.26	1,575.00	3,200	53%
11. Payroll Tax Expenses	16,864.06	104,033.32	108,163.95	228,272	46%
<i>Subtotal</i>	31,992.82	207,325.61	200,703.41	482,831	43%
Employee Benefits					
12. Health, Life, & LTD Ins.	49,253.54	269,285.60	333,948.95	982,991	27%
13. Air Medical Insurance	79.00	2,370.00	1,950.00	2,707	88%
14. Retiree Medical Insurance	9,511.89	55,073.24	55,360.48	83,000	59%
<i>14a. Retiree Medical Reimb.</i>	<i>(1,533.63)</i>	<i>(6,047.41)</i>	<i>(30,644.38)</i>		
15. Employee Dental Insurance	2,806.94	16,474.09	17,972.80	44,086	37%
16. Employee Vision Insurance	618.09	3,518.36	3,879.04	7,471	47%
17. Employee EAP	82.61	470.06	498.73	1,116	42%
18. Fitness Stipend	-	-	-	5,400	0%
19. 457b District Contribution	3,925.00	22,537.50	13,919.04	48,900	46%
20. CalPERS Expenses	31,903.26	385,517.46	476,010.13	599,102	64%
21. Workers Comp Insurance	-	58,201.69	60,210.92	146,512	40%
<i>Subtotal</i>	96,646.70	807,400.59	933,105.71	1,921,285	42%
TOTAL S.E.B	355,392.01	2,313,778.04	2,509,410.80	4,992,572	46%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MONTHLY EXPENDITURE REPORT - PAGE 2 OF 3
December 31, 2023

50%
Of Budget Year



SERVICE & SUPPLY EXPENDITURES (S & S)

	Month-to-Date	Year-to-Date	Prior Year	Budget	% of Budget
Operations & Maintenance					
1. Auto Maintenance	3,508.17	24,028.01	28,642.03	39,200	61%
2. Engineering	8,859.06	18,076.75	34,182.87	75,000	24%
3. Lab Expenses	2,920.00	12,815.00	12,835.00	13,000	99%
4. Maintenance & Repairs					
General	893.45	14,366.19	22,220.40	45,200	32%
TRF	643.01	2,429.88	8,352.86	17,000	14%
<i>Subtotal</i>	<i>1,536.46</i>	<i>16,796.07</i>	<i>30,573.26</i>	<i>62,200</i>	<i>27%</i>
5. Materials & Supplies					
General	2,937.63	28,068.47	27,020.42	39,500	71%
TRF	1,750.64	23,180.24	9,316.73	35,000	66%
<i>Subtotal</i>	<i>4,688.27</i>	<i>51,248.71</i>	<i>36,337.15</i>	<i>74,500</i>	<i>69%</i>
6. Radio Maintenance	3,128.09	6,018.54	3,582.06	8,500	71%
7. Ruth Lake License	-	1,500.00	-	1,500	100%
8. Safety Equip./Training					
General	2,260.50	7,765.48	10,513.14	19,000	41%
TRF	-	153.00	144.00	2,000	8%
<i>Subtotal</i>	<i>2,260.50</i>	<i>7,918.48</i>	<i>10,657.14</i>	<i>21,000</i>	<i>38%</i>
9. Tools & Equipment	260.57	1,323.80	1,031.24	5,000	26%
10. USGS Meter Station	-	8,600.00	8,220.00	9,000	96%
<i>Operations Subtotal</i>	<i>27,161.12</i>	<i>148,325.36</i>	<i>166,060.75</i>	<i>308,900</i>	<i>48%</i>
General & Administration					
11. Accounting Services	200.00	19,805.00	24,215.00	35,000	57%
12. Bad Debt Expense	-	-	-	-	0
13. Dues & Subscriptions	500.00	32,128.56	30,617.95	37,400	86%
14. IT & Software Maintenance	3,583.30	32,386.46	33,742.53	82,000	39%
15. Insurance	-	130,217.44	107,309.77	120,000	109%
16. Internet	680.94	4,135.07	6,757.26	5,500	75%
17. Legal Services	554.44	7,880.60	11,447.41	35,000	23%
18. Miscellaneous	203.57	4,583.82	5,015.73	10,000	46%
19. Office Building Maint.	1,748.32	10,071.23	11,257.25	19,000	53%
20. Office Expense	5,695.13	23,987.59	19,992.80	39,600	61%
21. Professional Services	-	1,433.75	6,675.88	20,000	7%
22. Property Tax	-	2,764.00	2,764.00	3,000	92%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MONTHLY EXPENDITURE REPORT - PAGE 3 OF 3
December 31, 2023

**SERVICE & SUPPLY EXPENDITURES (con't)**

	Month-to-Date	Year-to-Date	Prior Year	Budget	% of Budget
23. Regulatory Agency Fees	4,374.00	129,912.57	50,938.51	199,000	65%
24. Ruth Lake Programs	-	-	-	5,000	0%
25. Safety Apparel	2,065.27	2,807.44	2,608.36	9,300	30%
26. Technical Training	-	314.23	101.36	14,000	2%
27. Telephone	1,381.22	6,339.58	7,734.28	19,000	33%
28. Travel & Conference	265.03	10,340.17	6,106.00	22,000	47%
<i>Gen. & Admin. Subtotal</i>	<i>21,251.22</i>	<i>419,107.51</i>	<i>327,284.09</i>	<i>674,800</i>	<i>62%</i>
TOTAL SERVICE & SUPPLY	48,412.34	567,432.87	493,344.84	983,700.42	58%

Power

29. Essex - PG & E	481,678.45	544,311.35	416,505.23		
30. 2Mw Generator Fuel	-	-	8,561.05		
<i>Subtotal Essex Pumping</i>	<i>481,678.45</i>	<i>544,311.35</i>	<i>425,066.28</i>		
31. All other PG & E	25,580.33	59,263.63	36,094.86		
<i>Subtotal All Power</i>	<i>507,258.78</i>	<i>603,574.98</i>	<i>461,161.14</i>	<i>1,019,000</i>	<i>59%</i>

Total Service and Supplies incl.

Power	555,671.12	1,171,007.85	954,505.98	2,002,700	58%
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PROJECTS, FIXED ASSETS & CONSULTING SERVICES

	Month-to-Date	Year-to-Date		Budget	% of Budget
	507,091.00	3,739,950.00		19,840,575	19%

GRAND TOTAL EXPENSES	1,418,154.13	7,224,735.89	3,463,916.78	26,835,847	27%
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32. Debt Service - SRF Loan	273,668	273,668	273,668	273,668	100%
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TOTAL EXPENSES WITH DEBT SERVICE

	1,691,822.13	7,498,403.89	3,747,301.80	27,109,515.39	
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OTHER EXPENSES

33. ReMat Consultant Exp.	-	-	9,717.02		
34. Capital Replacement Exp.	-	-	-		

TOTAL EXPENSES WITH REMAT

	555,671.12	1,171,007.85	964,223.00		
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HUMBOLDT BAY MUNICIPAL WATER DISTRICT PROJECT PROGRESS REPORT

December 31, 2023

50% Of Budget Year



A. CAPITAL PROJECTS

GRANT FUNDED CAPITAL PROJECTS	MTD	YTD	BUDGET	% OF
	EXPENSES	TOTAL		BUDGET
1 Grant - TRF Generator <i>(Treatment Facility Project, \$1.9M - FEMA, Approved)</i>	0	78,254	1,900,000	4%
2 Grant - Collector 2 Rehabilitation <i>(\$1.6M - NCRP Prop 1, Approved)</i>	304,749	2,162,328	3,200,000	68%
3 Grant - Collector Mainline Redundancy Pipeline <i>(Treatment/Base Facility Project, \$3.1M - FEMA, Approved)</i>	7,850	76,774	3,100,000	2%
4 Grant - 2x Tank Seismic Retrofit	19,254	19,254	5,700,000	0%
4A Grant - 1x Tank (Industrial) Seismic Retrofit <i>(\$5.7M - FEMA, Industrial Expenses Line 103B)</i>	(7,001)	(7,001)	0	
4B 12kV Relocation	0	60,000	0	0%
TOTAL GRANT FUNDED CAPITAL PROJECTS	324,852	2,389,609	13,900,000	17%

NON-GRANT FUNDED CAPITAL PROJECTS

5 Mainline Valve Replacement Program	0	0	170,000	0%
6 ADA Improvments - Eureka Office Parking Lot	0	488	11,000	4%
7 Storage Barn at Headquarters <i>(\$180k, FY24/FY25, Advanced Charges being Collected)</i>	0	0	0	0
TOTAL NON-GRANT FUNDED CAPITAL PROJECTS	0	488	181,000	0%

B. EQUIPMENT AND FIXED ASSET PROJECTS

	MTD	YTD	BUDGET	% OF
	EXPENSES	TOTAL		BUDGET
8 FY24 Replace Essex Admin Computers	2,651	2,651	6,500	41%
9 FY24 Replace Control Computers	2,177	2,177	5,250	41%
10 Spare Collector Motor	102,787	102,787	108,250	95%
11 Portable Eye Wash & Shower	0	1,470	1,750	84%
12 Pipeline Maintenance Equipment	0	5,354	5,750	93%
13 John Deere 4052 Implements	0	2,497	6,500	38%
14 Maintenance Shop High Bay Lights	2,296	2,296	3,250	71%
15 Cordless Tools & Equipment	0	4,085	5,250	78%
16 TRF Security Fence <i>(Treatment Facility Project)</i>	0	0	7,750	0%
17 TRF Spare Process Pumps <i>(Treatment Facility Project)</i>	0	25,508	25,750	99%
18 TRF Replace PH Probes <i>(Treatment Facility Project)</i>	0	0	26,750	0%
19 TRF Benchtop Turbidity Meter <i>(Treatment Facility Project)</i>	0	0	6,750	0%
20 Tesla Battery Project - TRF <i>(Treatment Facility Project)</i>	0	1,164	0	0
20A FY24 Turbidimeter Replacement <i>(Treatment Facility Project)</i>	103	14,784	0	0



HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 2 OF 5
December 31, 2023

B. EQUIPMENT AND FIXED ASSET PROJECTS (con't)

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
21 FY24 Replace Eureka Admin Computers	0	0	3,000	0%
22 Ruth Hydro Power Monitor Replacement	0	0	13,500	0%
23 Ruth Hydro Plant PRV Internal Belzona Repairs	0	0	4,750	0%
24 Ruth Hydro Incoming Power Feed Conductors	0	0	42,500	0%
25 Ruth Bunkhouse Picnic Table Replacement	0	1,388	2,000	69%
26 Ruth Automated Tiltometers	0	0	50,000	0%
26A Grant - Power Loss - FEMA 4699 Winter Storm	58	1,509	0	0%
TOTAL EQUIPMENT & FIXED ASSET PROJECTS	110,073	167,671	325,250	52%

C. MAINTENANCE PROJECTS

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
27 FY24 Pipeline Maintenance	682	682	14,000	5%
28 FY24 Main Line Meter Flow Calibration	0	0	28,000	0%
29 FY24 Technical Support & Software Updates	1,445	33,880	26,750	127%
30 FY24 Generator Services	0	0	3,500	0%
31 FY24 Hazard & Diseased Tree Removal	0	0	8,000	0%
32 FY24 Cathodic Protection	0	0	1,500	0%
33 FY24 Maintenance Emergency Repairs	0	4,464	50,000	9%
34 FY24 Fleet Paint Repairs	0	0	5,000	0%
35 Particle Counter Calibration	52	1,727	1,750	99%
36 EOC Emergency Backpack Supplies	0	1,449	1,750	83%
37 Collector 1 Conductor Replacement	0	0	89,750	0%
38 FY24 Power Pole/Line Inspection/Maintenance	0	0	43,500	0%
39 SBPS Roll-Up Door	0	0	33,000	0%
40 Service Vehicle Utility Box Lighting	0	1,473	1,750	84%
41 Park #1 Gazebo Roof Replacement	0	2,843	3,500	81%
42 Pipeline R-O-W Maintenance	0	0	20,000	0%
43 FY24 TRF Generator Maintenance	0	328	500	0%
<i>(Treatment Facility Project)</i>				
44 FY24 TRF Limitorque Valve Retrofit Supplies	0	0	14,500	0%
<i>(Treatment Facility Project)</i>				
45 TRF Valve Network Upgrade (Phase 2)	0	511	125,000	0%
<i>(Treatment Facility Project)</i>				
46 FY24 Brush Abatement Ruth Hydro	0	0	21,000	0%
47 FY24 LTO Insurance	0	0	5,000	0%
48 FY24 Spillway Repairs	0	352	10,000	4%
49 FY24 Howell Bunger Valve Inspection	0	0	1,000	0%
20 FY24 Log Boom Inspection	0	123	1,500	8%
51 Ruth Hydro Synchronizer Testing	0	0	21,000	0%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 3 OF 5
December 31, 2023

50% Of Budget Year

**C. MAINTENANCE PROJECTS (con't)**

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
52 Replace Headquarters Garage Doors	0	0	6,750	0%
53 FY24 Eureka Office Generator Service	0	697	500	139%
53A Shoreline Debris Removal, Ruth Fire Recovery	0	1,488	0	0%
TOTAL MAINTENANCE PROJECTS	2,179	50,017	538,500	9%

D. PROFESSIONAL & CONSULTING SERVICES

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
54 Prof. Services for New Capital Debt	0	0	0	0
55 FY24 Crane Testing/Certification	0	8,414	10,000	84%
56 FY24 Chlorine System Maintenance	0	2,136	6,750	32%
57 FY24 Hydro Plant Annual Elect/Maint Inspection	0	172	4,000	4%
58 FY23 Hydro Plant Annual Elec. Maint./Testing	0	0	5,000	0%
59 FY24 Essex Mad River Cross-Sectional Survey	1,310	6,550	12,000	55%
60 FY24 Technical Training	75	6,632	27,000	25%
61 FY24 O & M Training	0	0	20,000	0%
62 Backflow Tester Certification	2,433	3,713	5,750	65%
63 EAP Tabletop Planning	0	0	5,000	0%
64 CIP 10-yr Financial Revision and Project Review	0	0	15,000	0%
65 FY24 Public Education Funds	500	1,500	5,000	30%
66 FY24 Mad River Regulatory Compliance Assistance	0	0	50,000	0%
67 Spillway Bridge Inspection	0	0	7,500	0%
68 FY24 GHD Review/Report Mad River Cross-Sectional	0	0	5,000	0%
69 FY24 Grant Application Assistance	0	0	20,000	0%
70 Domestic Water for Nordic Aqua Farm	0	0	5,000	0%
71 Samoa Peninsula ROW EIR (GHD)	1,621	20,549	240,850	9%
72 Domestic Water System Cathodic Protection Updates	7,455	17,075	48,000	36%
73 Water Quality Monitoring Plan Update	0	0	20,000	0%
74 Water Model Update/Peninsula Domestic Capacity Rvw	0	0	30,000	0%
75 Engineering Study-Replace 15-inch Peninsula Pipe	0	0	25,000	0%
76 Dam Crest Monument Survey (Vertical Cntrl Survey)	0	0	20,000	0%
77 GHD - Dam Vertical Control Survey Analysis	0	5,200	5,000	104%
78 FY24 Dam Spillway Wall Monument Survey	0	10,200	17,500	58%
79 GHD - Dam Spillway Wall Monument Survey Analysis	0	0	6,500	0%
80 Dam Left Abutment Slide Monitoring Survey	0	0	10,000	0%
81 GHD - Dam Left Abutment Slide Monitoring Survey	0	0	3,000	0%
82 FY24 FERC DSSMR Assistance (GHD)	0	0	5,000	0%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 4 OF 5

50% Of Budget Year



December 31, 2023

D. PROFESSIONAL & CONSULTING SERVICES (CONT)

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
83 FY24 Spillway Repair, Dam Inspection/Reporting Assistance	0	787	5,000	16%
84 FY24 FERC Chief Dam Safety Engineer	0	1,382	12,000	12%
TOTAL PROF/CONSULTING SERVICES	13,394	84,308	650,850	13%

E. INDUSTRIAL SYSTEM PROJECTS

85 Refurbish PS-6 (Phase 1)	0	0	0	0
86 2 Pumps/Motors/VFD's for Pump Station 6	0	0	0	0
87 Maintain Water to PS6 During Low-Flow Months	0	0	13,250	0%
88 Industrial System Assistance	0	0	0	0
89 Crossover Vault Modifications	0	0	0	0
90 Pump Station 6 Gravel Bar Work and Permitting	0	0	0	0
TOTAL INDUSTRIAL SYSTEM PROJECTS	0	0	13,250	0%

F. CARRY-OVER PROJECTS FROM PRIOR YEAR

TOTAL CARRYOVER PROJECTS	0	0	0	0%
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G. ADVANCED CHARGES & DEBIT SERVICE FUNDS COLLECTED

	MTD	YTD	BUDGET	% BUDGET
91 On-Site Generation of Chlorine <i>(\$1.3M - FY23/24 Treatment Facility Project)</i>	10,996	65,975	131,950	50%
92 Prof. Services for New Capital Debt	13,517	81,100	162,200	50%
93 Storage Barn for Ruth Headquarters	7,500	45,000	90,000	50%
TOTAL ADVANCED CHARGES COLLECTED	32,013	192,075	384,150	50%

H. PROJECTS NOT CHARGED TO MUNICIPAL CUSTOMERS

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
94 On-Site Generation of Chlorine <i>(\$1.2M - FY23, Treatment Facility Project)</i>	3,309	609,652	1,212,499	50%
95 Humboldt Bay Radio Read Meters <i>(Capital Replacement Funds)</i>	0	0	9,500	0%
96 Ruth Paving and Repairs <i>(Non-FEMA August Complex Wildfire Funds Collected)</i>	0	0	0	0



50% Of Budget Year

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 5 OF 5
December 31, 2023

H. PROJECTS NOT CHARGED TO MUNICIPAL CUSTOMERS (con't)

	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
97 Domestic Water System Cathodic Protection Upgrades	0	0	0	0
<i>(Collected Advance Charges)</i>				
98 Streambed Flow Enhancement Grant	505	11,651	457,755	3%
<i>(DWR Grant)</i>				
99 Clean-Out Industrial Water Tank	0	0	0	0
<i>(ReMat Reserves)</i>				
100 North Mainline Extension Study	0	0	10,000	0%
101 BL Rancheria Water	8,681	10,673	0	0
102 CalFire Healthy Forest Grant	1,679	7,160	5,000,000	0%
<i>(CalFire Grant)</i>				
103 CalFire Fuels Reduction Program	30	30	500,000	0%
<i>(CalFire Funding)</i>				
103A Quagga Grant Projects (Ruth Lake)	93	19,216	0	0%
103B Grant - 1x Tank (Industrial) Seismic Retrofit	7,001	7,001	0	0
TOTAL NOT CHARGED TO CUSTOMERS	21,297	665,383	7,189,754	9%

PROJECT PROGRESS REPORT SUMMARY OF ALL ACTIVITY

CUSTOMER CHARGES	MTD	YTD	BUDGET	% BUDGET
TOTAL NON-GRANT FUNDED CAPITAL PROJECTS	0	488	181,000	0%
<i>Treatment Facility Portion</i>				
	0	0	0	
TOTAL EQUIPMENT & FIXED ASSET PROJECTS	110,073	167,671	325,250	52%
<i>Treatment Facility Portion</i>				
	0	26,672	67,000	
TOTAL MAINTENANCE PROJECTS	2,179	50,017	538,500	9%
<i>Treatment Facility Portion</i>				
	0	839	140,000	
TOTAL PROF/CONSULTING SERVICES	13,394	84,308	650,850	13%
<i>Treatment Facility Portion</i>				
	0	0	0	
TOTAL INDUSTRIAL SYSTEM PROJECTS	0	0	13,250	0%
TOTAL CARRYOVER PROJECTS	0	0	0	0
<i>Treatment Facility Portion</i>				
	0	0	0	
TOTAL ADVANCED CHARGES/DEBIT SERVICE	32,013	192,075	384,150	50%
<i>Treatment Facility Portion</i>				
	\$0	\$0	\$0	
TOTAL CUSTOMER CHARGES	\$157,658	\$494,558	\$2,093,000	24%
NON-CUSTOMER CHARGES (CURRENT FY)	MTD	YTD	BUDGET	% BUDGET
TOTAL GRANT FUNDED CAPITAL PROJECTS	324,852	2,389,609	13,900,000	17%
TOTAL NON-CUSTOMER CHARGES	21,297	665,383	7,189,754	9%
TOTAL USE OF ENCUMBERED FUNDS	1,641	95,200	800,898	12%
TOTAL NON-CUSTOMER CHARGES	\$347,791	\$3,150,192	\$21,890,652	14%
GRAND TOTAL PROJECT BUDGET ACTIVITY	\$505,450	\$3,644,750	\$23,983,652	15%



HUMBOLDT BAY MUNICIPAL WATER DISTRICT
ENCUMBERED FUNDS RECONCILIATION REPORT
December 31, 2023

	MTD	YTD	AMOUNT	
	EXPENSES	TOTAL	ENCUMBERED	REMAINING
A. CAPITAL PROJECTS				
1E Fiber Optic Link - Collector 2 - Phase 1	0	677	28,500	27,823
2E Power and Fiber Optic Link-Collector 2 - Phase 2	0	3,084	44,000	40,916
3E Underground Power to Collector 2 - Phase 3	0	13,979	207,084	193,105
4E Retaining Wall for Valve Access	0	0	70,000	70,000
B. EQUIPMENT & FIXED ASSET PROJECTS				
5E Essex Stand Alone Security and Fire Monitoring	0	1,554	1,750	196
6E Electrical Shop Offices	496	7,132	19,937	12,805
7E Hydro Plant Neutral Overvoltage Relay	0	0	8,956	8,956
8E Hydro Plant Wicket Gate & HBV Signal Upgrade	1,145	8,357	8,500	143
C. MAINTENANCE PROJECTS				
9E FY23 Main Line Meter Flow Calibration	0	124	24,803	24,679
10E Truesdale to Samoa Booster Station Telemetry Radio	0	460	3,209	2,749
11E Line Shed Alarm Upgrades	0	0	6,500	6,500
D. PROFESSIONAL & CONSULTING SERVICES				
24E Above Ground 10,000 Gallon Fuel Tank Testing	0	0	5,400	5,400
25E Salary Survey	0	0	25,000	25,000
26E Engineering Study-Replace 15-inch Peninsula Pipe	0	0	4,702	4,702
27E Samoa Peninsula Coastal Development Permit	0	7,469	26,465	18,996
28E Samoa Peninsula ROW EIR (GHD)	0	32,932	32,932	0
29E Transformer at Hydro Plant	0	8,524	19,779	11,255
30E Upgrade Microsoft Office - Essex	0	15	900	885
31E 404 Permit Assistance	0	0	24,196	24,196
32E Lease Lots Surveys	0	0	22,618	22,618
33E GIS / FIS Ruth Area, Including Internship	0	0	5,000	5,000
34E GIS Project at Ruth Lake (USFS)	0	0	7,500	7,500
35E Collector Arc Flash Study Update and Breaker Testi	0	9,816	9,760	(56)
36E CAISO Meter Inspection Calibration	0	0	4,000	4,000
37E Technical Dam/Spillway Support*	0	1,076	189,407	188,331

*This total comprised of projects #23-51-0033, 23-58-0115, 23-58-0116, 23-56-0122, 23-58-9123, 22-58-0121

ENCUMBERED FUNDS TOTAL	1,641	95,200	800,898	705,698
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Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 1
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
101 NETLINK			
101 NETLINK	12/08/2023	<i>Ruth Data Link/Internet</i>	190.00
Total 101 NETLINK:			190.00
Acme Rigging & Supply Company			
Acme Rigging & Supply Company	12/22/2023	<i>Left slings</i>	133.31
Total Acme Rigging & Supply Company:			133.31
ACWA/JPIA			
ACWA/JPIA	12/20/2023	<i>RETIREE MEDICAL</i>	9,511.89
Total ACWA/JPIA:			9,511.89
Advanced Security Systems			
Advanced Security Systems	12/08/2023	<i>Eureka Office Alarm - Annual Billing</i>	462.00
Total Advanced Security Systems:			462.00
AirGas NCN			
AirGas NCN	12/22/2023	<i>Safety PPE for inventory</i>	142.81
AirGas NCN	12/08/2023	<i>Respirator wipes</i>	21.05
AirGas NCN	12/22/2023	<i>Safety PPE for inventory</i>	18.38
AirGas NCN	12/22/2023	<i>Safety PPE for inventory</i>	207.37
AirGas NCN	12/22/2023	<i>Safety PPE for Ruth</i>	90.64
Total AirGas NCN:			480.25
Analytical Services, Inc			
Analytical Services, Inc	12/22/2023	<i>Lab Samples</i>	1,695.00
Total Analytical Services, Inc:			1,695.00
AT & T			
AT & T	12/22/2023	<i>Eureka/Essex Landline</i>	31.43
AT & T	12/22/2023	<i>Arcata/Essex Landline</i>	31.43
AT & T	12/22/2023	<i>Eureka Office/Alarm</i>	60.05
AT & T	12/22/2023	<i>TRF</i>	29.25
AT & T	12/22/2023	<i>Essex office/Modem/Control Alarm System</i>	29.25
AT & T	12/11/2023	<i>Eureka Office Long Distance</i>	7.71
AT & T	12/11/2023	<i>Essex office/Modem/Control Alarm System</i>	6.77
Total AT & T:			195.89
ATS Communications			
ATS Communications	12/22/2023	<i>IT Support for Essex Admin Computers</i>	1,430.00
Total ATS Communications:			1,430.00
Baldwin,Blomstrom,Wilkinson			
Baldwin,Blomstrom,Wilkinson	12/19/2023	<i>Calfire healthy forest grant 10/24-11/10/23</i>	1,678.75
Total Baldwin,Blomstrom,Wilkinson:			1,678.75
Brandi Easter			
Brandi Easter	12/08/2023	<i>Portrait of Sheri Woo</i>	188.56

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 2
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Brandi Easter:			188.56
Campton Electric Supply			
Campton Electric Supply	12/22/2023	Lights for Essex Shop	54.80
Total Campton Electric Supply:			54.80
Caselle, Inc			
Caselle, Inc	12/08/2023	Support & Maint for Electronic W2s/1099s - 6 months	150.00
Total Caselle, Inc:			150.00
City of Eureka			
City of Eureka	12/11/2023	Eureka office water/sewer	107.58
City of Eureka	12/19/2023	Instream Flow Public Outreach 1/24/2024	505.00
Total City of Eureka:			612.58
Coastal Business Systems Inc.			
Coastal Business Systems Inc.	12/05/2023	Eureka office copy and fax machine	866.28
Coastal Business Systems Inc.	12/05/2023	Essex copy/fax machine	309.77
Coastal Business Systems Inc.	12/28/2023	Eureka office copy and fax machine	750.17
Coastal Business Systems Inc.	12/28/2023	Essex copy/fax machine	268.25
Total Coastal Business Systems Inc.:			2,194.47
Coastal Ecosystems Institute			
Coastal Ecosystems Institute	12/28/2023	2024 Humboldt Bay Symposium - Sponsor	500.00
Total Coastal Ecosystems Institute:			500.00
Corey Borghino			
Corey Borghino	12/22/2023	Employee Recognition	90.43
Total Corey Borghino:			90.43
Cummins Sales and Service			
Cummins Sales and Service	12/28/2023	Coolant for 100KW generator at TRF	210.14
Total Cummins Sales and Service:			210.14
Downey Brand Attorneys LLP			
Downey Brand Attorneys LLP	12/05/2023	Legal Fees April 2023 - BL Rancheria Water	8,138.00
Total Downey Brand Attorneys LLP:			8,138.00
Eureka Chamber of Commerce			
Eureka Chamber of Commerce	12/05/2023	Annual Membership 2024	500.00
Total Eureka Chamber of Commerce:			500.00
Eureka Oxygen			
Eureka Oxygen	12/22/2023	Service Charge	5.84
Eureka Oxygen	12/22/2023	cylinder rental	127.00

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 3
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Eureka Oxygen:			132.84
Eureka Rubber Stamp			
Eureka Rubber Stamp	12/08/2023	Name Plate - J. Sells	14.88
Total Eureka Rubber Stamp:			14.88
Eureka-Humboldt Fire Ext.,Co, Inc			
Eureka-Humboldt Fire Ext.,Co, Inc	12/08/2023	Credit Memo	2.73-
Eureka-Humboldt Fire Ext.,Co, Inc	12/08/2023	Fire Extinguisher training demo for Essex staff	230.20
Total Eureka-Humboldt Fire Ext.,Co, Inc:			227.47
FasTrak Invoice Processing Department			
FasTrak Invoice Processing Department	12/05/2023	Bridge Toll 11/17/2023	7.00
Total FasTrak Invoice Processing Department:			7.00
FEDEX			
FEDEX	12/08/2023	Return particle counter	51.85
Total FEDEX:			51.85
Ferguson Waterworks #1423			
Ferguson Waterworks #1423	12/22/2023	HB/FB Meter Reading Software	650.00
Ferguson Waterworks #1423	12/22/2023	HB/FB Meter Reading Software	1,850.00
Total Ferguson Waterworks #1423:			2,500.00
Fortuna Iron Corporation			
Fortuna Iron Corporation	12/22/2023	Stainless Steel ladder for Collector 2 project	18,145.10
Total Fortuna Iron Corporation:			18,145.10
Franchise Tax Board			
Franchise Tax Board	12/05/2023		65.00
Franchise Tax Board	12/20/2023		65.00
Total Franchise Tax Board:			130.00
Frontier Communications			
Frontier Communications	12/05/2023	Ruth HQ	59.25
Frontier Communications	12/05/2023	Ruth Hydro/Ruth Dataline	235.09
Frontier Communications	12/28/2023	Ruth Hydro/Ruth Dataline	243.75
Frontier Communications	12/28/2023	Ruth HQ	59.25
Total Frontier Communications:			597.34
GEI Consultants, Inc			
GEI Consultants, Inc	12/07/2023	Main Line Resiliency Project 23-0799	7,801.75
Total GEI Consultants, Inc:			7,801.75
Genesis Computer Systems, Inc			
Genesis Computer Systems, Inc	12/22/2023	CIP replacement of older machines	2,651.24
Genesis Computer Systems, Inc	12/22/2023	CIP replacement of older machines	2,177.14

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 4
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Genesis Computer Systems, Inc:			4,828.38
GFS Chemicals, Inc			
GFS Chemicals, Inc	12/22/2023	TRF lab instrument calibration	432.87
Total GFS Chemicals, Inc:			432.87
GHD			
GHD	12/05/2023	Samoa Peninsula ROW EIR #23-0625	4,132.10-
GHD	12/05/2023	General Engineering	1,798.39
GHD	12/05/2023	General Engineering - FEMA Grant - Power Loss	58.38
GHD	12/05/2023	General Engineering - Collector Mainline Redundancy Project	48.63
GHD	12/05/2023	Collector 2 Rehabilitation Project	1,794.36
GHD	12/05/2023	OSHG Installation and Integration Design #23-0091	1,010.88
GHD	12/05/2023	Cathodic Protection #24-0027	5,747.77
GHD	12/05/2023	Blue Lake Rancheria Mainline Extension #24-0100	542.63
GHD	12/22/2023	Reservoirs Seismic Retrofit Phs 2 #24-0811	10,762.89
GHD	12/22/2023	Reservoirs Seismic Retrofit Phs 2 #24-0811	6,255.96
GHD	12/22/2023	Reservoirs Seismic Retrofit Phs 2 #24-0812	1,490.25
GHD	12/22/2023	Reservoirs Seismic Retrofit Phs 2 #24-0812	745.13
GHD	12/22/2023	Collector 2 Rehabilitation	2,334.60
GHD	12/22/2023	Cathodic Protection #24-0027	1,706.99
GHD	12/22/2023	OSHG Installation and Integration Design #23-0091	2,297.76
GHD	12/22/2023	General Engineering	1,215.64
GHD	12/22/2023	General Engineering - Ruth	97.26
GHD	12/22/2023	Samoa Peninsula ROW EIR #23-0625	5,753.40
Total GHD:			39,528.82
Grainger			
Grainger	12/08/2023	Heating equipment for spare collector motors	884.63
Total Grainger:			884.63
Hach Company			
Hach Company	12/08/2023	Hach Turbidimeters	102.97
Total Hach Company:			102.97
Harper Motors			
Harper Motors	12/08/2023	Unit 12 repairs	104.49
Total Harper Motors:			104.49
Health Equity Inc			
Health Equity Inc	12/08/2023	HSA Admin Fee Dec 2023 16 employees	47.20
Health Equity Inc	12/08/2023	HSA Admin Fee Dec 2023 - 6 employees	17.70
Health Equity Inc	12/20/2023	District HSA Contributions- Dec 2023	208.33
Total Health Equity Inc:			273.23
Hensel Hardware			
Hensel Hardware	12/22/2023	Credit for Wall Hangers - already paid on Credit Card	16.26-
Hensel Hardware	12/08/2023	Surge protectors for office equipment	40.12
Hensel Hardware	12/08/2023	Zip ties for shop supplies	29.28
Hensel Hardware	12/08/2023	Main office ADA toilet upgrade - return supplies	51.60-

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 5
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Hensel Hardware	12/08/2023	Shop Supplies	9.75
Hensel Hardware	12/08/2023	Line Shed #7 supplies	322.47
Hensel Hardware	12/08/2023	Shop supplies	39.03
Hensel Hardware	12/08/2023	paint for HB valve positioner brackets	23.85
Hensel Hardware	12/08/2023	Adhesive remover	7.58
Hensel Hardware	12/22/2023	Materials to replace turbidimeter on Coll 1	53.34
Hensel Hardware	12/22/2023	TRF plumbing supplies	11.89
Hensel Hardware	12/08/2023	Cabinet mounting hardware	8.46
Total Hensel Hardware:			477.91
Hensell Materials			
Hensell Materials	12/28/2023	Credit for Pallet for Concrete for Quagga Bollards	35.00-
Hensell Materials	12/28/2023	Shop Supplies	45.13
Total Hensell Materials:			10.13
Humboldt County Treasurer			
Humboldt County Treasurer	12/28/2023	Capital Financing Project	45,611.43
Total Humboldt County Treasurer:			45,611.43
Humboldt Fasteners			
Humboldt Fasteners	12/08/2023	Concrete bit	17.46
Humboldt Fasteners	12/08/2023	Concrete anchor bolts	8.40
Total Humboldt Fasteners:			25.86
Humboldt Fence Company			
Humboldt Fence Company	12/22/2023	Chain link mesh for Line Shed 8 fence	296.53
Total Humboldt Fence Company:			296.53
Humboldt Recycling			
Humboldt Recycling	12/08/2023	E-waste & battery disposal	96.60
Total Humboldt Recycling:			96.60
Humboldt Redwood Company, LLC			
Humboldt Redwood Company, LLC	12/11/2023	Mt Pierce Lease site	320.59
Total Humboldt Redwood Company, LLC:			320.59
Jasson Klingonsmith			
Jasson Klingonsmith	12/08/2023	Per Diem for Backflow Tester Certification 12/13-12/15/23	575.37
Total Jasson Klingonsmith:			575.37
Layne Christensen Company			
Layne Christensen Company	12/05/2023	Collector 2 Rehab work - Sept 30 - Oct 24, 2023	108,205.00
Layne Christensen Company	12/05/2023	Collector 2 Rehab work - Oct 25 - Nov 26, 2023	173,897.50
Total Layne Christensen Company:			282,102.50
Mad River Union			
Mad River Union	12/05/2023	annual subscription	40.00

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 6
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Mad River Union:			40.00
Mario Palmero			
Mario Palmero	12/14/2023	Essex Petty Cash - Supplies	60.72
Mario Palmero	12/14/2023	Essex Petty Cash - Refreshments for staff meeting	73.14
Total Mario Palmero:			133.86
Mendes Supply Company			
Mendes Supply Company	12/28/2023	Resupply customer service inventory	21.00
Mendes Supply Company	12/28/2023	Resupply customer service inventory	59.75
Mendes Supply Company	12/28/2023	Janitorial supplies for Main Office	75.37
Total Mendes Supply Company:			156.12
Miller Farms Nursery			
Miller Farms Nursery	12/08/2023	Late Fee on Quagga Invoice	3.00
Miller Farms Nursery	12/08/2023	Quagga Bollards	125.00
Miller Farms Nursery	12/22/2023	Fencing materials	72.28
Miller Farms Nursery	12/22/2023	Fencing materials	69.93-
Total Miller Farms Nursery:			130.35
Mission Linen			
Mission Linen	12/05/2023	Uniform Rental	122.95
Mission Linen	12/05/2023	maintenance supplies	95.65
Mission Linen	12/05/2023	Uniform Rental	151.84
Mission Linen	12/05/2023	maintenance supplies	54.32
Mission Linen	12/05/2023	Uniform Rental	113.40
Mission Linen	12/05/2023	maintenance supplies	32.12
Mission Linen	12/05/2023	Uniform Rental	164.28
Total Mission Linen:			734.56
Napa Auto Parts			
Napa Auto Parts	12/08/2023	Taillight lens for Miller Portable Welder	19.12
Napa Auto Parts	12/08/2023	Windshield wipers	195.08
Napa Auto Parts	12/08/2023	Wiring connectors	9.06
Napa Auto Parts	12/08/2023	Oil & filter for Unit #7	117.14
Napa Auto Parts	12/08/2023	Fuel line to repair Altec Chipper recall	33.78
Napa Auto Parts	12/08/2023	Annual service supplies for Unit 1	73.68
Napa Auto Parts	12/08/2023	Credit Memo - return air filter	23.38-
Napa Auto Parts	12/08/2023	Unit 12 transmission service	26.86
Napa Auto Parts	12/08/2023	Unit 2 & 3 annual service	127.94
Napa Auto Parts	12/11/2023	Unit 16 annual service	13.01
Total Napa Auto Parts:			592.29
North Coast Laboratories			
North Coast Laboratories	12/08/2023	lab tests - Humboldt Bay Retail	370.00
North Coast Laboratories	12/08/2023	lab tests - Fieldbrook-Glendale CSD	110.00
North Coast Laboratories	12/08/2023	lab tests - Humboldt Bay Retail	110.00
North Coast Laboratories	12/08/2023	lab tests - Fieldbrook-Glendale CSD	110.00
North Coast Laboratories	12/08/2023	lab tests - Fieldbrook-Glendale CSD	110.00
North Coast Laboratories	12/08/2023	lab tests - Humboldt Bay Retail	110.00
North Coast Laboratories	12/08/2023	lab tests - Humboldt Bay Retail	305.00

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 7
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total North Coast Laboratories:			1,225.00
Northern California Safety Consortium			
Northern California Safety Consortium	12/22/2023	HAZWOPER Refresher training -3 employees	300.00
Northern California Safety Consortium	12/22/2023	HAZWOPER Refresher training -5 employees	500.00
Northern California Safety Consortium	12/22/2023	HAZWOPER Refresher training -1 employee	100.00
Total Northern California Safety Consortium:			900.00
NTU Technologies, Inc			
NTU Technologies, Inc	12/28/2023	TRF Treatment Chemical	1,647.00
Total NTU Technologies, Inc:			1,647.00
O'Connor & Company			
O'Connor & Company	12/08/2023	Annual Financial Audit FY21/22	200.00
Total O'Connor & Company:			200.00
Optimum/Sudden Link			
Optimum/Sudden Link	12/05/2023	Essex internet	251.56
Optimum/Sudden Link	12/05/2023	Essex Phones	57.08
Optimum/Sudden Link	12/05/2023	Eureka Internet	209.45
Optimum/Sudden Link	12/05/2023	Fieldbrook-Glendale CSD Internet	333.33
Optimum/Sudden Link	12/04/2023	TRF Internet	29.93
Optimum/Sudden Link	12/04/2023	TRF Internet - Blue Lake SCADA Monitoring	59.84
Optimum/Sudden Link	12/04/2023	TRF Internet - Fieldbrook-Glendale CSD	59.84
Total Optimum/Sudden Link:			1,001.03
Pacific Gas & Electric Co.			
Pacific Gas & Electric Co.	12/07/2023	Eureka Office	148.89
Pacific Gas & Electric Co.	12/07/2023	Jackson Ranch Rectifier	20.34
Pacific Gas & Electric Co.	12/07/2023	HWY 299 Rectifier	46.01
Pacific Gas & Electric Co.	12/07/2023	West End Road Rectifier	190.42
Pacific Gas & Electric Co.	12/07/2023	TRF	8,286.89
Pacific Gas & Electric Co.	12/07/2023	Ruth Hydro Valve Control	33.12
Pacific Gas & Electric Co.	12/07/2023	Ruth Hydro	255.20
Pacific Gas & Electric Co.	12/07/2023	Samoa Booster Pump Station	855.79
Pacific Gas & Electric Co.	12/07/2023	Samoa Dial Station	56.32
Pacific Gas & Electric Co.	12/13/2023	Essex Pumping June - Nov 2023	13,529.29
Pacific Gas & Electric Co.	12/13/2023	Essex Pumping June - Nov 2023	9,151.91
Pacific Gas & Electric Co.	12/13/2023	Essex Pumping June - Nov 2023 .	474,595.22
Pacific Gas & Electric Co.	12/28/2023	Ruth HQ	89.38
Total Pacific Gas & Electric Co.:			507,258.78
Pacific Paper Co./Arcata Stationers			
Pacific Paper Co./Arcata Stationers	12/08/2023	Electrical Shop bookcase & filing cabinet	632.57
Pacific Paper Co./Arcata Stationers	12/22/2023	Eureka office supplies	132.19
Pacific Paper Co./Arcata Stationers	12/08/2023	Return Bookcase for Electrical Shop Offices	307.21-
Total Pacific Paper Co./Arcata Stationers:			457.55
Pacific Water Resources			
Pacific Water Resources	12/08/2023	Spare motor, motor shaft, and pump for collectors	101,841.73

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 8
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Pacific Water Resources:			101,841.73
Paul Jorgensen			
Paul Jorgensen	12/08/2023	<i>Per Diem for Backflow Tester Certification 12/13-12/15/23</i>	575.37
Total Paul Jorgensen:			575.37
Pierson Building Center			
Pierson Building Center	12/22/2023	<i>Heating equipment for spare collector motors</i>	61.01
Total Pierson Building Center:			61.01
Pitney Bowes Inc			
Pitney Bowes Inc	12/08/2023	<i>Ink for Postage Meter</i>	99.73
Pitney Bowes Inc	12/11/2023	<i>postage meter lease - Oct 20, 2023 - Jan 19, 2024</i>	208.64
Total Pitney Bowes Inc:			308.37
Platt Electric Supply			
Platt Electric Supply	12/22/2023	<i>Headquarters power drop repair</i>	43.85
Platt Electric Supply	12/22/2023	<i>Materials for Ruth Cabin</i>	318.76
Platt Electric Supply	12/22/2023	<i>Tools for Electrical Shop</i>	243.11
Platt Electric Supply	12/22/2023	<i>Replacement light in Essex hallway</i>	80.82
Platt Electric Supply	12/22/2023	<i>Electrical shop project</i>	294.12
Platt Electric Supply	12/22/2023	<i>Electrical shop project</i>	189.61
Platt Electric Supply	12/22/2023	<i>Supplies for rewire of pump motors - Collector 2</i>	284.76
Platt Electric Supply	12/22/2023	<i>Electrical shop project</i>	96.95
Platt Electric Supply	12/22/2023	<i>Electrical shop supplies</i>	192.04
Platt Electric Supply	12/22/2023	<i>Replace Maintenance Shop Lighting</i>	1,686.49
Platt Electric Supply	12/22/2023	<i>Replace Maintenance Shop Lighting</i>	39.61
Platt Electric Supply	12/22/2023	<i>Replace Maintenance Shop Lighting</i>	72.84
Platt Electric Supply	12/22/2023	<i>Electrical shop project</i>	163.82
Platt Electric Supply	12/22/2023	<i>TRF Tesla Comms</i>	38.41
Platt Electric Supply	12/22/2023	<i>Headquarters power drop repair</i>	245.15
Platt Electric Supply	12/22/2023	<i>Electrical shop supplies</i>	46.68
Platt Electric Supply	12/22/2023	<i>Replace Maintenance Shop Lighting</i>	556.80
Platt Electric Supply	12/22/2023	<i>Replace Maintenance Shop Lighting</i>	57.69
Platt Electric Supply	12/22/2023	<i>Items purchased to replace Ruth hydraulic pump starters</i>	219.75
Platt Electric Supply	12/22/2023	<i>Items purchased to replace Ruth hydraulic pump starters</i>	219.75
Total Platt Electric Supply:			4,357.09
Points West Surveying Co			
Points West Surveying Co	12/08/2023	<i>Mad River Cross Sections at Essex #24-0033</i>	1,310.00
Total Points West Surveying Co:			1,310.00
Purchase Power			
Purchase Power	12/19/2023	<i>Postage Refill</i>	503.50
Total Purchase Power:			503.50
Recology Arcata			
Recology Arcata	12/08/2023	<i>Essex Garbage/Recycling Service - Nov 2023</i>	777.72

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 9
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Recology Arcata:			777.72
Recology Humboldt County			
Recology Humboldt County	12/08/2023	Eureka office garbage/recycling service - Nov 2023	105.52
Total Recology Humboldt County:			105.52
Security Lock & Alarm			
Security Lock & Alarm	12/11/2023	Lockable door knob for Samoa Booster Pump Station	49.11
Total Security Lock & Alarm:			49.11
Shred Aware			
Shred Aware	12/22/2023	Shred 24 Banker Boxes of Purged Files	282.06
Total Shred Aware:			282.06
Six Rivers Communications			
Six Rivers Communications	12/11/2023	Contract for re-program radios #24-0509	2,550.00
Total Six Rivers Communications:			2,550.00
Solo Sports			
Solo Sports	12/22/2023	Safety Apparel	1,655.71
Total Solo Sports:			1,655.71
State Water Resources Control Board			
State Water Resources Control Board	12/08/2023	NPDES Drinking Water Purveyors Annual Permit Fee - Facility	3,576.00
State Water Resources Control Board	12/28/2023	Ruth Lake Annual Permit Fee - Facility ID 1B04156WNHU	399.00
State Water Resources Control Board	12/28/2023	Essex Annual Permit Fee - Facility ID 1B03079WNHU	399.00
Total State Water Resources Control Board:			4,374.00
SWRCB-DWOCP			
SWRCB-DWOCP	12/05/2023	D4 Certification Renewal - J. Klingonsmith	105.00
SWRCB-DWOCP	12/19/2023	D2 Certification Renewal - K. Daggs	60.00
Total SWRCB-DWOCP:			165.00
The Mill Yard			
The Mill Yard	12/08/2023	Pressure treated lumber	203.52
The Mill Yard	12/22/2023	Maintenance shop light replacement	27.85
Total The Mill Yard:			231.37
The Mitchell Law Firm, LLP			
The Mitchell Law Firm, LLP	12/05/2023	Legal Services- Nov 2023	554.44
Total The Mitchell Law Firm, LLP:			554.44
Thryv			
Thryv	12/05/2023	white page listing	21.00
Thryv	12/28/2023	white page listing	21.29

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 10
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
Total Thryv:			42.29
Times Printing			
Times Printing	12/08/2023	Blue Book Dividers	497.52
Times Printing	12/08/2023	Blue Book Dividers	139.40
Total Times Printing:			636.92
Trinity County General Services			
Trinity County General Services	12/28/2023	Pickett Peak site lease	257.50
Total Trinity County General Services:			257.50
Trinity County Solid Waste			
Trinity County Solid Waste	12/19/2023	Ruth HQ dump fees	8.75
Trinity County Solid Waste	12/19/2023	Ruth Hydro dump fees	8.75
Total Trinity County Solid Waste:			17.50
U.S. Bank Corporate Payment System			
U.S. Bank Corporate Payment System	12/14/2023	Eureka office supplies	97.77
U.S. Bank Corporate Payment System	12/14/2023	Annual renewal of Microsoft 365	99.99
U.S. Bank Corporate Payment System	12/14/2023	ON X premium annual membership for Ruth Phone	29.99
U.S. Bank Corporate Payment System	12/14/2023	Hotel for USFS Symposium Silviculture 11/14-11/16/23	256.33
U.S. Bank Corporate Payment System	12/14/2023	Lunch for USFS Symposium Silviculture	8.70
U.S. Bank Corporate Payment System	12/14/2023	Adobe Subscription - Cancelled	239.88
U.S. Bank Corporate Payment System	12/14/2023	Essex shop supplies	7.04
U.S. Bank Corporate Payment System	12/14/2023	Food for crew working late installing pumps at collector 2	87.30
U.S. Bank Corporate Payment System	12/14/2023	Adapter assembly	682.35
U.S. Bank Corporate Payment System	12/14/2023	Credit for duplicate charge	753.46
U.S. Bank Corporate Payment System	12/14/2023	Linear position sensor	1,180.74
U.S. Bank Corporate Payment System	12/14/2023	5 new keys for Essex Generator	21.50
U.S. Bank Corporate Payment System	12/14/2023	Wall Hangers	16.26
U.S. Bank Corporate Payment System	12/14/2023	Cross Connection Control Training & Certification	1,275.00
U.S. Bank Corporate Payment System	12/14/2023	Distilled water for TRF analyzers	25.45
U.S. Bank Corporate Payment System	12/14/2023	Spendwise Monthly Subscription - Oct 2023	79.70
U.S. Bank Corporate Payment System	12/14/2023	Eureka office supplies	157.44
U.S. Bank Corporate Payment System	12/14/2023	District Jacket for new employee - E. Schillinger	65.52
U.S. Bank Corporate Payment System	12/14/2023	Safety Apparel	1,124.11
U.S. Bank Corporate Payment System	12/14/2023	Airmed Membership	79.00
U.S. Bank Corporate Payment System	12/14/2023	Covid Tests for Eureka Office	227.20
U.S. Bank Corporate Payment System	12/14/2023	Rocker Switch JD 110	77.83
U.S. Bank Corporate Payment System	12/14/2023	Essex office supplies	10.19
U.S. Bank Corporate Payment System	12/14/2023	Lubricants & cleaners for Maintenance Shop	346.66
U.S. Bank Corporate Payment System	12/14/2023	Hydro Plant Wicket Gate & Instrumentation Project	67.90
U.S. Bank Corporate Payment System	12/14/2023	Oil and water sensor for 2MW generator enclosure	246.33
U.S. Bank Corporate Payment System	12/14/2023	Microsoft Office for Ruth Computer	14.79
U.S. Bank Corporate Payment System	12/14/2023	AI cybersecurity training	75.00
U.S. Bank Corporate Payment System	12/14/2023	Essex office supplies	33.15
U.S. Bank Corporate Payment System	12/14/2023	Computer Cables	68.52
U.S. Bank Corporate Payment System	12/14/2023	Essex office supplies	12.26
U.S. Bank Corporate Payment System	12/14/2023	Electrical Shop Offices	14.63
Total U.S. Bank Corporate Payment System:			5,839.27

Humboldt Bay Municipal Water District

--Monthly Expenses by Vendor Detail Report--
Report dates: 12/1/2023-12/31/2023Page: 11
Jan 03, 2024 04:15PM

Vendor Name	Date Paid	Description	Amount Paid
U.S. Postal Service			
U.S. Postal Service	12/05/2023	<i>Annual PO Box Rental</i>	226.00
Total U.S. Postal Service:			226.00
VALEO Networks			
VALEO Networks	12/28/2023	<i>Eureka office monthly computer maintenance</i>	1,954.79
VALEO Networks	12/28/2023	<i>Service call for failure of backup in server room</i>	660.00
Total VALEO Networks:			2,614.79
Valley Pacific Petroleum Serv. Inc			
Valley Pacific Petroleum Serv. Inc	12/05/2023	<i>Cardlock-Pumping & Control</i>	618.19
Valley Pacific Petroleum Serv. Inc	12/05/2023	<i>Cardlock-Water Quality</i>	618.19
Valley Pacific Petroleum Serv. Inc	12/05/2023	<i>Cardlock-Maintenance</i>	618.19
Valley Pacific Petroleum Serv. Inc	12/05/2023	<i>Cardlock-HB Retail</i>	160.73
Valley Pacific Petroleum Serv. Inc	12/05/2023	<i>Cardlock-FBGCS D</i>	457.45
Total Valley Pacific Petroleum Serv. Inc:			2,472.75
Verizon Wireless			
Verizon Wireless	12/14/2023	<i>General Manager</i>	38.79
Verizon Wireless	12/14/2023	<i>Ruth Area</i>	26.53
Verizon Wireless	12/14/2023	<i>Humboldt Bay Retail</i>	16.02
Verizon Wireless	12/14/2023	<i>Fieldbrook Glendale CSD</i>	45.58
Verizon Wireless	12/14/2023	<i>Humboldt Bay IPAD</i>	9.88
Verizon Wireless	12/14/2023	<i>Fieldbrook Glendale CSD IPAD</i>	28.13
Verizon Wireless	12/14/2023	<i>Ruth Area</i>	18.17
Verizon Wireless	12/14/2023	<i>Ruth Hydro</i>	18.17
Total Verizon Wireless:			201.27
Watt's Cleaning Services			
Watt's Cleaning Services	12/05/2023	<i>Eureka office cleaning 11/8 & 11/22/23</i>	278.00
Total Watt's Cleaning Services:			278.00
Grand Totals:			1,080,461.44

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

SUPPLEMENTAL - FIELDBROOK-GLENDALE CSD CONTRACT SERVICES
 MONTHLY BILLING/EXPENSE REPORT
 December 31, 2023



	Month-to-Date	Year-to-Date
<i>Contract Services Billing</i>		
Administrative	1,194.64	7,167.84
Indirect/Overhead	946.53	5,679.18
Maintenance/Operations/Supplies	20,713.36	128,773.10
Total FB-GCSD Billing	22,854.53	141,620.12

<i>Contract Services Expenses</i>		
Employee Wages	11,310.39	66,434.38
Employee Benefits	5,730.66	31,797.73
Operations & Maintenance Expenses	517.20	3,201.34
General & Administrative Expenses	2,324.41	11,282.88
Total FB-GCSD Expenses	19,882.66	112,716.33
<i>NET Fieldbrook Contract Services</i>	2,971.87	28,903.79

Humboldt Bay Municipal Water District

To: Board of Directors

From: Chris Harris

Date: January 11, 2021

Re: Introduction to Patty Howard, Senior Advisor - RGS, - Compensation & Benefit Study

Background

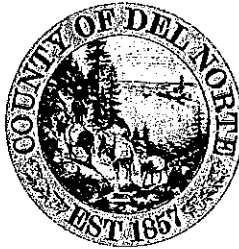
- May/June 2021 - FY21/22 Budget Discussions; Request by Director for future budget for a Compensation/Benefit Survey.
- February 2022 - Staff survey responses:
 - #E: "Please consider updating the salary step system. Perhaps adding more steps or adjusting wages. Not updated in the past ten years at least"
 - #J: "I would feel more satisfied if the board did a survey of water districts statewide to see if our salaries are comparable to others"
 - #P: "Conduct a salary survey among staff positions"
- May 2022 - FY22/23 Project Budget - Compensation and Benefit Study (Salary Survey) budgeted and approved (\$15,000)
- April 2023 – RFP for Compensation & Benefit Study issued
- June 2023 - Board of Directors rejected all bids (one response received), funds encumbered and increased for FY23/24 (\$25,000)
- October 2023 - RFP for Compensation & Benefit Study re-issued
- December 2023 – Contract awarded to RGS
- January 2024 – Kick-off meetings with RGS consultant(s)

Current

During the December 14, 2023 Board Meeting, the Directors awarded the contract for the Compensation & Benefit Study to Regional Governmental Services (RGS). During the discussion, the Directors requested an opportunity to meet with the project lead and discuss the project. At the January Board Meeting, Patty Howard, Senior Advisor for RGS will be available to provide the Directors with additional information regarding their process and will answer any questions the Board may have.

JESSICA CEJNAR ANDREWS / YESTERDAY @ 4:32 P.M. / LOCAL GOVERNMENT

Del Norte Officials Call For Reviewing Salary Structure As State Minimum Wage Increases



Documents:

- [Del Norte County staff report](#)
- [SEIU 1021 Side Letter Agreement](#)
- [Del Norte County Bi-Weekly Salary Schedule](#)

###

A week after supervisors ensured staff pay would be above California's new minimum wage, Del Norte's administrative officer says a complete review of the county's salary structure will be necessary to "figure out what to do going forward."

The Board of Supervisors' approval of a side letter agreement with the Del Norte Employees Association SEIU Local 1021 on Dec. 29 affects seven positions including Cook II, Custodian II, Intake Worker I, Legal Process Clerk I, Medical Records Clerk I, Office Assistant III and Vocational Assistant I.

The starting salary for those positions was 31 cents below the [state's \\$16-an-hour minimum wage](#), which took effect on Jan. 1, County Administrative Officer Neal Lopez told the Wild Rivers Outpost on Thursday. The last adjustment the county made was when hourly minimum wage increased to \$15.50, he said.

"We're trying to keep our actual jobs that require 40 hours a week above minimum wage, but it's changing so rapidly it's been an ongoing battle," Lopez said. "We're really at a point where we need to do a complete structural review and figure out what to do going forward."

The county is also bracing for a [state initiative](#) slated to go on the Nov. 5, 2024 ballot that would boost the minimum wage to \$18 an hour, Lopez said. He pointed out that the California Living Wage Act would be a 12.5 percent increase over the current \$16 minimum wage that would create a domino effect impacting the county's overall salary structure.

"If we move someone from \$16 to \$18, now a supervisor who makes \$18 will need to make \$20," Lopez said. "It's a domino effect that goes from the bottom up. That's what a lot of people don't understand."

Under the side letter agreement between Del Norte County and SEIU Local 1021, the seven positions listed above would have a starting bi-weekly salary of \$1,312.04 instead of the previous \$1,254.90. If it's difficult to hire qualified personnel or if someone is unusually qualified, the side letter allows the county to appoint at a higher salary step, though the Board of Supervisors must approve that appointment.

Last week, Del Norte Employees Association President Norma Williams said the side letter agreement is a Band-aid and salaries would be addressed in contract negotiations between the union and county going into next year. The move to \$16 an hour was a "surprise on both sides," Williams said.

Williams referred to a bill California Gov. Gavin Newsom signed into law last year that [boosts fast food workers' minimum wage to \\$20](#) beginning in April. But getting back to Del Norte staff, Williams said there are cooks in jails in comparable counties whose minimum wage is \$18 an hour.

"I can already hear what your county teams are going to say next year, but you know something, minimum wage can no longer be the floor," she said. "You have a vacancy rate of 29 percent across the board. In your largest

department, that's at 35 percent, and that's a funded department, by the way. I have vacancy rate numbers because the union demanded them. We asked for them because we've been seeing the trajectory in terms of our bargaining unit numbers."

Del Norte County's staff vacancy rate overall has been near 30 percent for awhile, Lopez said. Human Resources advertises open positions through a variety of avenues including the California State Association of Counties, Rural County Representatives of California and GovernmentJobs.com.

Before the COVID-19 pandemic, Lopez said, the county would get about 20 applicants for entry level jobs. Now it's lucky to get five.

With a potential \$18-an-hour minimum wage on the November ballot, Lopez said the county may have to hire a consultant to brace for that "massive change."

"Typically we do this in-house and the plan is to hopefully again do it in-house," he said. "But if we're getting a month into this and we're thinking it's much bigger and we don't have the capacity to do it, we may have to get a consultant. We don't know how it will work until we dive into it."

On Dec. 29, supervisors Dean Wilson and Valerie Starkey commented on the side letter agreement, though it was on the consent agenda.

Wilson, who represents District 5, predicted difficult times in store for Del Norte County that's going to require him and his colleagues to decide where their priorities should be. He mentioned fast food workers and county employees in the same breath, but said the two aren't comparable because \$16 an hour doesn't reflect the entire cost to the county.

"The \$22-an-hour worker at McDonalds does not make retirement, he does not have the health benefits, he does not have the coverage that is required," Wilson said. "When you look at a \$16-an-hour worker, you have to add 35 percent to that cost because that's what we have to do. When you put a deputy in a car, that's a 70 percent cost in addition to that base salary. They're making more than \$20 an hour in many cases, but those benefits are not reflected in that hourly wage."

Starkey acknowledged Williams' comment that the side letter of agreement with SEIU 1021 is a Band-aid. She said she and her colleagues should dive deep into how salaries are structured in Del Norte County.

"The floor should not be minimum wage for county employees. That should absolutely not be the case," she said.

"Although I'm going to approve the Band-aid today, I want this to be top on our list moving forward; that we look at all of this because it's unacceptable."

Humboldt Bay Municipal Water District

To: Board of Directors
From: Chris Harris
Date: January 11, 2024
Re: Employee Handbook Revision, Part II

Background

From the September and October Board Meetings:

The District Employee Handbook was last revised in 2017, with final Board approval in January 2018.

Based on several employment law changes as well as internal District policy changes, staff has begun the process of revising the Employee Handbook to include these updates. Staff is using the ACWA/JPIA Employee Handbook for additional guidance.

In order to make this process less burdensome for the Directors, staff is using a phased approach over several months (similar to the budget process) for Director review and discussion of the proposed changes in the Handbook.

Current

Staff has provided **Chapter Three** for Director review and input this month.

Next Steps

Staff will provide additional sections of the Employee Handbook in the coming months. Once staff has received and included Director input in all the sections, the DRAFT Employee Handbook (in entirety) will be provided to both District Counsel and the ACWA/JPIA for final review and input. Suggestions provided by both District Counsel and ACWA/JPIA will then be provided to the Directors for review with possible approval of the entire Employee Handbook (anticipated April 2024).

Attachments

Chapter Three, HBMWD Employee Handbook, including Appendix E & F

Chapter 3

DISTRICT REQUIREMENTS and STANDARDS

3000 Standards of Conduct

Working together at the District requires cooperation and mutual respect for the rights of all employees, customers, and the general public. Therefore, the District has high expectations regarding the personal conduct of its employees. Employees of the District are expected to work in a positive, productive and self-disciplined manner. The District expects that employees will:

- Use good judgment and work safely at all times
- Use their experience and training to deliver high quality drinking water to ensure protection of public health
- Follow operations manuals and procedures, and other written or oral directives from supervisors and management
- Work competently and diligently to carry out and complete assigned duties
- Keep informed and educated to current regulatory requirements to perform the effectively
- Work well with co-workers and be concerned and protective of their welfare

While continuation of employment is at the mutual consent of the employee and the District, it may be helpful to identify some examples of the types of conduct that are impermissible and may lead to various forms of discipline, up to and including immediate termination. Although it is not possible to provide an exhaustive list of all types of impermissible conduct and performance, the following are some examples:

- Insubordination, including improper conduct toward, or refusal to perform tasks assigned by supervisor's, the Superintendent, the Business Manager, or the General Manager;
- Drinking/intoxication while working or driving a District-owned vehicle;
- For positions requiring a CDL, not maintaining an acceptable driving record. (Note - District's insurance carrier defines acceptable as: no moving violation in a District vehicle, no at-fault accidents, and no more than two "points" from DMV within a 36-month period);
- Possession, distribution, sale or use of illegal drugs, or cannabis while at work or on the property, or while driving a District-owned vehicle;
- Theft or unauthorized removal or possession of property from the District, fellow employees, customers, or anyone on District property;
- Fighting on District property or while on District business;
- Violating safety or health rules, or engaging in conduct that creates a safety or health hazard;
- Sexual or other unlawful harassment of another employee;
- Bringing onto District property or in District vehicles, dangerous or unauthorized materials, such as explosives, firearms, hazardous materials or other similar items,

- except as provided for in Section 3016;
- Conviction of a criminal offense that impacts on your employment;
 - Falsifying or making a material omission in an employment application, or in other information provided in personnel, timekeeping or other District records;
 - Committing a fraudulent act or a breach of trust under any circumstances;
 - Neglect in the care or use of District property;
 - Poor job performance;
 - Excessive (3 per month) unexcused absenteeism or tardiness;
 - Violation of District policies.

This list of prohibited conduct does not alter the District's policy of at-will employment. Both the employee and the District remain free to terminate the employment relationship at any time, with or without reason or advance notice.

3000.1 Dress Code Standards

While the District has no formal dress code, it is expected that you will dress in a manner consistent with good business practices. The basic rule is "Nothing too short, tight, ragged or dirty. If in doubt, don't wear it."

Employees at the Essex location, for safety purposes, are not permitted to wear open-toed shoes, slipper style, clog shoes, or other shoes not appropriate for the work environment. Please ask the Superintendent for additional clarification if needed.

3000.2 Facial Hair Policy

Employees based at the Essex and Ruth locations may be subject to the *Facial Hair Policy*. This policy is for the safety and protection of employees who may need to wear respiratory protection. Employees who are subject to the Facial Hair Policy will find it stated in their job description.

HBMWD Facial Hair Policy: In order to wear respiratory protection or other safety equipment, facial hair must be maintained as to keep hair growth out from between the skin and the face piece sealing surface (such as stubble beard growth, beard, mustache or sideburns).

- CalOSHA Guidelines: "This regulation does not ban facial hair on respirator users, per se, from the workplace. However, when a respirator must be worn to protect employees from airborne contaminants, it has to fit correctly, and this will require the wearer's face to be clean-shaven where the respirator seals against it."
- See also OSHA Regulations: 1910.13(g)(1)(i)-(iii) and 1910.13(g)(1)(i)(A)-(B)

3001 Alcohol-Drug-Free Work Place

The District recognizes that behavior resulting from the use of alcohol and/or drugs may detrimentally affect the safety and work performance of its work force and can present a risk to the health and welfare of its employees and members.

In recognition of the District's responsibility to maintain a safe work environment and the employee's responsibility to perform safely, the District will act to eliminate any substance abuse, which increases the risk of injuries, accidents, or substandard performance. For the purpose of this policy, substance abuse includes the use or possession of illegal drugs, alcohol, cannabis or, abuse of prescription drugs, which could impair your work performance and/or ability to perform your job safely. It is expected that:

- Employees shall not be at work, drive a vehicle on District business, or operate the District's equipment with any amount of alcohol, cannabis or illegal drugs in their system which would result in a confirmed positive test; shall not use alcohol, possess open containers of alcohol, or use or possess illegal drugs while on duty; and shall not manufacture, distribute, dispense, sell or provide illegal drugs to any person while on duty.
- If the use of a prescription drug combined with the duties of the required job creates an unsafe working condition, this fact shall be reported to the employee's supervisor or General Manager prior to reporting to work. Employees whose job performance is so restricted may be subject to reassignment, medical examination, or other actions specified by applicable statutes and regulations.

3001.1 Reasonable Suspicion Testing

Employees may be subject to drug and alcohol testing when there is reasonable suspicion that the employee has violated the rules expressed above. An employee that refuses requested drug and/or alcohol testing will be assumed guilty of having violated the rules above. In addition, when any employee has previously been found in violation of these rules, or by the employee's own admission, the employee may be required to submit to periodic substance testing as a condition of remaining in or return to District employment.

3001.2 Fitness-For-Duty & Return-To-Work Evaluations

The purpose of this policy is to determine an employee's ability to safely perform the essential job tasks of his/her job with or without reasonable accommodation. This policy is not designed or intended to supersede employer requirements under

any state or federal law or regulation and will be utilized in accordance with the law.

General guidelines:

- Each employee is responsible for maintaining his/her health in such a way that the employee can perform the essential functions of his/her job with or without reasonable accommodations. If a supervisor has reason to question the ability of an employee to perform the essential job functions, a Fitness-for-Duty or Return-to-Work Evaluation may be requested.
- To determine the appropriateness of a Fitness-for-Duty or Return-to-Work Evaluation request, supervisors must consult and receive approval from the General Manager.
- Time required by the employee to complete the Fitness-for-Duty / Return-to-Work Evaluation is considered work time and may require paid administrative leave. Time off for prescribed treatment (after the evaluation), mandatory or otherwise, will be charged to accrued sick leave and/or compensatory time.
- Results of the evaluation will be maintained confidentially and separate from the employee's personnel record.
- If a Fitness-for-Duty/Return-to-Work evaluation is necessary, the employee will be required to be examined by a treating, personal physician or specialist selected by the District.
- Failure to attend a Fitness-for-Duty or Return-to-Work Evaluation may lead to disciplinary action, up to and including, termination.

Any employee who has questions concerning this policy or wants information on the dangers of drug abuse in the workplace, or is interested in available assistance programs, is encouraged to discuss this matter with the General Manager.

Any District employee convicted of any criminal drug statute for a violation occurring in the workplace, shall notify the District, in writing, no later than five calendar days after such conviction. The District upon receiving such notification will notify any federal or state agency from which it receives funds as required, within ten days.

The Federal Highway Administration of the Department of Transportation (DOT) has mandated urine drug testing and breathalyzer alcohol testing for safety-sensitive positions, and prevents performance of safety-sensitive functions when there is a positive test result. In addition, DOT requires the establishment of drug

free workplace policies and the reporting of certain drug-related offenses.

Appendix F contains the District's DOT Substance Abuse Policy, the purpose of which is to assure Fitness-for-Duty and to protect our employees and the public from risks posed by alcohol and controlled substance use. This, in conjunction with the Drug-Free Work Place policy above, is intended to comply with applicable Federal regulations governing workplace anti-drug programs in the transportation industry.

3002 Punctuality and Attendance

Employees are expected to be punctual and regular in attendance. Any tardiness or absence places additional burden on the employee's supervisor and fellow employees. An unscheduled absence causes the employee's workload to fall on others.

Excessive (3 per month) absenteeism or tardiness without legitimate reasons will not be tolerated. If an employee is unable to report for work on any day, the employee must call their supervisor (or if unavailable the Superintendent, Business Manager or General Manager) before the time they are scheduled to begin working that day. In all cases of absence or tardiness, the employee must provide their supervisor with an honest reason or explanation and the expected duration.

If an employee fails to report for work without notifying their supervisor (or if unavailable the Superintendent, Business Manager or General Manager) and the absence continues for a period of three days (three missed, scheduled shifts), the District will consider that the employee has abandoned their job and have voluntarily terminated employment.

3003 Emergency Response

District operations involve supplying potable water to the District's wholesale municipal and retail customers. Any interruptions of these services can pose significant public health problems to the communities we serve. All permanent full-time employees shall be subject to emergency callouts. All employees that are subject to emergency call-outs are required to have working telephones in operation at all times either via cellphone or in their places of residence. Employees subject to emergency call-outs are required to report changes in residence or phone number to the Superintendent and Accounting Specialist within five business days.

3004 Certification

California's Health and Safety Code specifies requirements for Water Treatment and Distribution Certification. The following chart summarizes the State requirements:

If an operator has been designated by the water supplier as the Chief Operator or Shift Operator, the operator must be certified at the level specified below:		
HBMWD Facility Classification	Minimum Certification of Chief Operator	Minimum Certification of Shift Operator
Treatment 4 (T4)	T4	T3
Distribution 4 (D4)	D4	D3

The State regulations further require that water systems shall utilize only **certified distribution operators** to make decisions regarding the following operational activities:

- Install, tap, re-line, disinfect, test and connect water mains, and appurtenances;
- Shutdown, repair, disinfect, and test broken water mains;
- Oversee flushing, cleaning, and pigging of existing water mains;
- Pull, reset, rehabilitate, disinfect, and test domestic water wells;
- Stand-by emergency response duties for after-hours distribution system emergencies;
- Drain, clean, disinfect, and maintain distribution reservoirs.

The State regulations also require that water systems shall utilize **either certified distribution operators or treatment operators** to make decisions regarding the following operational activities:

- Operate pumps, including the related flow/pressure control, and storage facilities;
- Maintain and/or adjust system flow and pressure requirements to meet consumer demands;
- Determine and control proper chemical dosage rates for well head disinfection as well as distribution "residual" maintenance;
- Investigate any water quality problems in the distribution system.

Based on the state's requirements, and the operational decision-making needs of the District, the following requirements have been established for each position class:

Position Class	Treatment Certification Required	Distribution Certification Required
District Superintendent	T4 (desired) T2 (if State will not recognize job duties and experience to obtain T3/T4 certification) **	D4
Water Operations Supervisor (Chief Operator)	T4	D4
Assistant Water Operations Supervisor	T4	D4
Maintenance & Electrical Supervisor	T4 (desired) T2 (if State will not recognize job duties and experience to obtain T3/T4 certification) **	D4
Assistant Maintenance & Electrical Supervisor	T2	D4
Water Operations Specialist	T4	D4
O&M Technicians (Shift Operators)	T3	D3
Operations & Customer Service Specialist	T3	D3
Maintenance Mechanic	T2	D2
Electrician & Instrument Technician	T2	D2
Ruth Hydro Operator	T2	D2
Maintenance Worker	T1	D1

** Note - State regulations require that the District Chief Operator (Operations Supervisor) be certified at the T4/D4 level. As a matter of District policy, all supervisory positions at Essex were desired to have the highest level of Treatment and Distribution Certification possible. Thus, all three Essex supervisory positions were originally required to be T4/D4. However, the State employs a very narrow definition of "treatment experience" which is required for all treatment certification levels beyond T2. Therefore, the required certification levels for the Superintendent, Maintenance Supervisor and Assistant Water Operations Supervisor have been changed to allow for exceptions on a case-by-case basis at the discretion of the General Manager.

If an employee, upon initial hire to the District or promotion within the District, does not possess the required certification, the District will allow a specified period of time for that employee to achieve the required certification. The specific amount of time allowed to

achieve the required certification shall be specified in the employee's hire/promotion letter from the District. The employee must meet the certification requirements within that specified period of time as a condition of employment. Under extenuating circumstances, and in the sole discretion of the District, a one-time extension may be granted to the employee to meet the certifications requirements, upon approval by the General Manager.

The District will support employees through the certification process to the greatest extent possible. The District will pay the following normal costs associated with the certification process: examination fees, certification fees, renewal fees, and authorized books/courses to allow the employee to prepare for the exams, and costs associated with continuing education requirements. The District will also allow a specified amount of time during the paid work week for the employee to prepare for the exams. The amount of preparatory time, and when an employee may take it, shall be specified by the Superintendent.

Although not required, employees in the Maintenance Mechanic, Electrician, Maintenance Worker and Hydro Operator position classes are encouraged to achieve higher certification levels so as to maximize their training and potential career progression.

In addition, the District has several vehicles that require a Commercial Class A License for operation. Medical evaluation and certification is also required for this license. The medical evaluation is provided at the District's designated medical care facility. The District will reimburse for Commercial license renewal fees for those employees with a job classification requiring a Commercial Class A License.

3005 Release of District Information and Media Contacts

Improper use or disclosure of District information may result in liability for you and the District. If you have any doubt as to whether you should release information, please refer the matter to the Superintendent, Business Manager or General Manager.

Since the events of September 11th, 2001, the District has instituted a new policy regarding release of District information to members of the public, or other "outside" parties. A person interested in information about the District, and especially our facilities, must first complete a Request for Information form. The General Manager or Superintendent must approve release of the information, prior to any information being provided to the "outside" party. Finally, the District employee who actually provides the information must document exactly what was provided (using Part 3 of Request for Information form). The completed form shall be submitted to the Accounting Specialist for filing. On occasion, employees may be approached for interviews or comments by the news media. If approached, employees should refrain from making any comment.

Employees must refer all media questions to the General Manager. This policy enables the District to coordinate replies to the news media.

3006 Conflicts of Interest

All employees are to avoid conflicts of interest. Conflicts occur when individual interest interferes with responsibilities at the District, or when personal relationship (e.g. with a supplier, customer, subordinate) impairs the ability to exercise good judgment on behalf of the District. Furthermore, employees should not accept loans, excessive entertainment or gifts, or anything constituting personal gain from a supplier, customer, or other party doing business with the District. If an employee is involved in any actual or potential conflict of interest, they should immediately disclose the relevant circumstances to their supervisor, or the Superintendent, Business Manager, or General Manager. If an actual conflict is determined, the District may take appropriate corrective action.

3007 Property

District Property: Employees are expected to use and handle with care District property (e.g. equipment, supplies, tools, furniture, software, documents). District property, including the shops and tools, are not to be used for personal purposes, nor removed from the District, without prior approval of the Superintendent or General Manager.

- Ruth-area: Due to the unique location and nature of work at Ruth, an arrangement is in place whereby the District's tools and shop may occasionally be used for personal purposes by the Ruth-Area Representative, in exchange the Ruth-Area Representative uses some of his personal tools to perform District work.
- Surplus Property: Occasionally, the District will declare as surplus property it no longer needs. The District's policy regarding sale of surplus property is as follows:
 - The General Manager and Superintendent are not eligible to buy surplus property;
 - Other employees may purchase surplus property if, at the sole discretion of the District, they have no "insider information" about the surplus goods;
 - A process must be used that allows all potential buyers to have an equal opportunity to examine the property and an equal chance to obtain it (e.g. a sealed-bid process).

Personal Property: The District is not responsible for your personal property. You should not leave valuable personal belongings in the workplace.

3008 Smoking/Tobacco Policy

Smoking tobacco or cannabis is not allowed in District buildings or any other enclosed area or facility. Chewing and spitting tobacco is not allowed in or around any District building or facility. Vaping and use of e-cigarettes are not permitted in or around District buildings.

3009 Use of Telephone

You are entitled to use the District telephone for personal calls in case of emergency. It is also recognized that occasionally personal calls may have to be made or taken during scheduled working hours. These calls must be kept to a minimum and should be interrupted to handle incoming calls or other District business. If you make a toll call for personal business, you must reimburse the District for the cost of such calls in accordance with the established procedure.

3010 Use of Computers, E-mail, Internet, Voicemail, Scanners, and Fax

Computers, e-mail, internet, voicemail, scanners, and fax machines are provided to District employees for the purpose of conducting District business and are not intended for personal use. Limited personal use is allowed, provided it meets the following guidelines.

- No use of the District's computers, e-mail, internet, voicemail, scanners, and Fax machines shall impair the District's business or the employee's performance, commit any illegal act, violate the District's anti-harassment policy, or result in private gain or advantage for the employee (such as conducting business related to economic interests outside of District employment). Each employee with access to the District's computers, e-mail, internet, voicemail, scanners, and Fax machines is responsible for understanding and following these guidelines. Unauthorized or improper use of the District's computers, e-mail, internet, voicemail, scanners, or Fax machines may result in terminating access to it; and depending upon the severity of the outcome of unauthorized or improper use, may result in disciplinary action, up to and including termination.
- Employees may have a uniquely assigned user name and password for security purposes. While this cannot guarantee privacy, confidentiality, or data security, it is an important component of the District's overall system protection. Employees are responsible for all computer and internet use under their user's name, and shall maintain the confidentiality of their password.

All electronic storage media, data files, logs and programs used on District owned

computer or telephone equipment is the property of the District and is subject to inspection by the General Manager, Business Manager, or Superintendent. No employee has a personal right to, or any rights of, privacy to any information stored or created on the District's computer or telephone systems. No employee shall create files, documents or other data on the District's computer system to which access is blocked by a password known only to the employee.

3011 Health and Safety

The District is committed to maintaining a safe and healthy workplace for all employees, and intends to fully comply with all laws regarding worker and workplace safety. The District has a comprehensive Workplace Illness and Injury Prevention Program (WIIP) as well as a number of other safety policies, procedures and practices. A copy of the WIIP is included in Appendix F for employees' information and use. Additionally, a complete copy of the District's Safety Manual and ongoing safety training schedule is available for information and review at Essex and the Eureka office.

Employees are expected to work safely and obey all safety-related rules and regulations on the job at all times. If an employee sustains an injury or occupational illness at work, they must immediately notify their supervisor, the Superintendent, Business Manager, or the General Manager. Additionally, employees must report any accidents or "near misses" even if they do not result in injury, thereby helping sustain and improve a safe work environment.

3011.1 Safety Incentive Award

The District has instituted a safety incentive/reward program for permanent full-time employees. HBMWD believes that providing a positive safety incentive program encourages employees to report injuries, illnesses, and near misses. The District furthermore recognizes, encourages, and rewards employees' involvement in the District's safety management program and will assist in achieving these goals. The award is \$200 per employee per calendar year and \$500 (including the \$200) for one employee whose name is randomly drawn from the list of \$200 incentive recipients.

-
- **Criteria** to be eligible for incentive award:
 1. Applies to permanent full-time employees only;
 2. Employee must have been employed with the District for at least six months in the calendar year for which the award applies;
 3. Employee is still employed by the District at the time the safety drawing is conducted.
 4. Employee must participate in at least seventy five percent (75%) of monthly safety meetings during the calendar year. For newly hired employees that meet

the eligibility requirements, percentage applies to eligible monthly safety meetings.

5. Employee must wear appropriate PPE when required on the job.
6. Employee must:

One of these 3
per calendar year

- Provide one safety awareness or preventative suggestion to supervisor and have it documented at a safety meeting or with the safety committee.
- Report an incident or near miss incident or unsafe conditions.
- Receive a "satisfactory" rating on annual performance evaluation under the "Safe Practices" category.

If an employee fails to meet any of the criteria listed above, they will be ineligible for the annual award.

It is very important that the safety award program not inhibit or deter employees from addressing or reporting any injury sustained at work.

3012 Workplace Security and Workplace Violence

3012.1 Visitors

Visitors who are at District facilities are to be met in the office area and accompanied by an employee at all times while on the premises. Only employees and authorized consultants, suppliers or vendors are allowed on District property unaccompanied.

3012.2 Monitoring and Vigilance

Employees should always pay attention to their surroundings, and be on the look-out for any abnormal or suspicious behavior or situation in and around the workplace, or at any District facility. Any abnormal or suspicious behavior or situation should immediately be reported to a supervisor, or the Superintendent, Business Manager, or General Manager. In the event of a situation threatening immediate danger to persons or substantial damage to property, the employee should call 911 and report the matter.

3012.3 Workplace Violence

The District is committed to providing a safe and violence-free workplace and strictly prohibits employees, consultants, customers, or visitors from behaving in a violent or threatening manner. The District seeks to prevent workplace violence before it begins, and reserves the right to deal with behavior that suggests a propensity toward violence even prior to any violent behavior occurring. The District believes that prevention of workplace violence begins with recognition and awareness of potential early warning signs, and has established procedures

for reporting and investigating the possibility of violence. Workplace violence includes, but is not limited to:

1. Threats of any kind, or threatening, aggressive, or violent behavior;
2. Other behavior that suggests an inclination or propensity toward violence. This could include belligerent speech, aggressive arguing or swearing, sabotage or threats of sabotage, or a pattern of refusing to follow policies and procedures;
3. Defacing property or causing physical damage;
4. Bringing weapons or firearms on District premises, in District vehicles, or while conducting District business (other than that expressly allowed in Section 3016).

Any employee who observes or becomes aware of any of the above-listed actions, or similar behavior, by an employee, customer, consultant, contractor, or visitor should notify their supervisor, Superintendent, Business Manager or General Manager immediately. Furthermore, employees should notify their supervisor, Superintendent, Business Manager or General Manager and provide a copy of any restraining order that is in effect. Employees must also notify their supervisor, Superintendent, Business Manager or General Manager of any potentially violent non-work-related situation that could result in violence in the workplace (for example a domestic dispute). All reports of workplace violence or threats of such violence will be taken seriously and will be investigated promptly and thoroughly. The District will not tolerate retaliation against any employee who reports workplace violence.

If the District determines that workplace violence or threat of violence has occurred, the District will take appropriate corrective action and will impose discipline on the offending employee (if employee involved). While the nature of discipline will depend on the circumstances, the District reserves the right to take other appropriate action, as it deems appropriate, in its sole discretion, including without limitation initiation of civil and/or criminal proceedings. If the violent behavior is that of a non-employee, the District will take appropriate action in an attempt to ensure that such behavior is not repeated.

3013 Employee Per Diem, Travel, and Credit Card Expenses

All business travel must be authorized in advance by the General Manager, Superintendent, or Business Manager.

3013.1 Per Diem and Travel Advance Procedures

To reduce/eliminate out-of-pocket costs for employees when travelling for District business, an advance per diem/travel payment will be provided up to two weeks prior to travel. The use of per diem and advance payment is required. Any

exception must be approved by the General Manager, Superintendent or Business Manager. Once travel needs are known, the employee will complete the top portion of the *Per Diem/Travel Advance Request Form* and forward to the Eureka office. The payment will not be issued more than two weeks in advance of the travel event.

Once the payment is issued to the employee, the employee will not be required to keep receipts for meals and incidentals (per diem). If travel plans change or are cancelled, any and all advance funds are due back to the District immediately. Failure to do so may be grounds for termination.

An employee who does NOT receive an advance per diem/travel check, or who incurs additional expenses while traveling that are not covered by the advance travel check, must claim reimbursement for travel expenses using the *Expense Reimbursement Form* and attach detailed receipts (see 3013.2, Employee Incurred Expenses, below). Per Diem/ Advance Travel payments are not available after-the-fact.

Please refer to the "*Per Diem & Travel Advance Policy*" as well as the "*Per Diem and Travel Advance Procedures*" in Appendix E for additional detail.

3013.2 Employee Incurred Travel Expenses -

Reimbursement for travel expenses not covered by the per diem/advance travel payment must be claimed using the *Expense Reimbursement Form* and include submission of acceptable detailed receipts. Alcohol and entertainment (including, but not limited to, in-room movie charges), are not reimbursable. Use of a personal vehicle for authorized District travel will be reimbursed at the current IRS-approved mileage reimbursement rate.

Any accompaniment by non-District personnel, whether the travel is by private car, common carrier, or District vehicle, must be approved in advance by the General Manager. No expenses associated with travel of the non-employee shall be reimbursed by the District.

3013.3 District Issued Credit Card -

Credit cards will be issued to Management, Supervisors, and the Ruth Representative who have the need to frequently purchase supplies or services. Credit cards should be used only for legitimate, approved, District business, subject to the following regulations:

- No personal items may be charged on the business credit card;
- All charges for travel related expenses must follow travel expense guidelines (3013.2);

- Detailed credit card receipts must be reviewed and approved by management and uploaded into the online purchase order software within two weeks of making the charge;
- If a detailed receipt is not available, the District credit card user must write an explanation of why a detailed receipt is not available and what the expense entails, to be signed by the employee and their direct supervisor. This written explanation must be uploaded into the online purchase order software within two weeks of making the charge;
- Any deviation from the above must be approved by the Business Manager or General Manager;
- A District credit card may be suspended or revoked from the user for failure to follow the above requirements.

3014 Use of District and/or Personal Automobiles for District Business

Use of District-owned vehicles is limited strictly to work-related assignments, and only District employees are authorized to operate District-owned vehicles. Employees with assigned District vehicles may drive the vehicle from their home to the assigned work location and from work back home each work day. Use of District vehicles for personal business is strictly prohibited. Any employee driving a District vehicle must have an appropriate valid driver's license. Gas purchased for District vehicles (if not pumped from District storage or filled at a "card-lock" station) must have a documented receipt listing because the gas was purchased, the vehicle mileage, and the purpose of the trip.

Use of personal vehicles on District business must be approved in advance except in emergencies. Such use will be reimbursed based on the requirements outlined in §3013.2 *Employee Incurred Travel Expenses*.

All employees who drive a District vehicle or use a personal vehicle on District business shall attend an approved Defensive Driver Training Course at least once every four years. Drivers may include temporary employees, seasonal employees, part-time employees and volunteers.

3015 Cellular Phone Safety Policy

Consistent with California law, the use of cellular phones without a hands-free device while driving on District business is prohibited. Employees must use a hands-free device while driving. If an employee does not have a hands-free device, they must safely pull off the road to use their cellular phone. Under no circumstances, may a driver initiate a

cellular phone call or text message while driving a vehicle during the course of business unless using a hands-free device.

3016 Gun and Pepper Spray Policy

As discussed previously, bringing dangerous or unauthorized materials, such as explosives, firearms, hazardous materials or other similar items, on District property or in District vehicles is strictly prohibited except as follows:

- Employees living at 'HBMWD' Ruth Lake Headquarters are permitted to keep rifles/guns at the Headquarters residence for personal use.
- Employees assigned to maintenance duty at Ruth Lake may, with the prior approval of the Superintendent, transport guns/rifles to the Ruth area for recreational use during non-duty hours. It will be the responsibility of the employee to make sure such weapons are transported in a lawful manner.
- Full-time employees are permitted but not required, to carry pepper spray for personal protection against people or animals.

Appendix E

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

Per Diem & Travel Advance Policy

Cancels:
See Also:

Approved by: BoD

I) Introduction

Business travel is often required for training and education courses as well as meetings and conferences. As such, the District budgets annually for the purpose of reimbursing employees the reasonable costs incurred when traveling for District business.

The purpose of this policy is to:

- 1) Increase efficiency by standardizing the travel and advance payment process
- 2) Provide specific internal controls for accounting purposes
- 3) Minimize out-of-pocket expenses for employees traveling for District business

Definitions:

General Services Administration (GSA): An independent agency of the United States Government established in 1949. The GSA maintains zip code based per diem amounts for the Federal Government.

Per Diem: Latin for "per day," is a daily allowance intended to cover meals and incidental expenses while traveling. HBMWD will use rates calculated by GSA.

Travel Advance: Payment for travel expenses that have not occurred at the time the check is issued. Documentation substantiates the expense will be incurred while traveling. Lodging and mileage paid in advance of the actual trip are examples of travel advances.

Travel Day: Any day needed to travel to or from the destination. These days are not eligible for a full per diem.

II) Policy

The District's Per Diem & Travel Advance Policy is as follows:

- 1) All travel must be approved in advance by the General Manager, Superintendent, or Business Manager.
- 2) Eureka office staff shall act as travel administrator/coordinator and will calculate all per diem and advance payments, based on information provided by supervisor/employee. Both management and employee will review and approve calculations prior to any check being issued.
- 3) Travel days will be paid a per diem rate of 75% of the stated GSA rate.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
Per Diem & Travel Advance Policy

Cancels:

See Also:

Approved by: BoD

- 4) Per diem will be reduced by any meals provided by the hotel/conference/training¹ based on allocation provided by GSA.
- 5) Multiple employees traveling to the same destination shall make an effort to minimize the District's expenses (car pool, room sharing, etc.)
- 6) The District shall provide a check to the traveling employee no more than two weeks in advance of the employee's departure. This check shall be comprised of:
 - a. Per diem funds as calculated using GSA rates
 - b. Lodging advance, based on room reservation
 1. Effort shall be made to pay hotel directly
 2. Effort shall be made to use District credit card at check-in
 - c. Mileage advance, calculated from point of origin to destination using current IRS rate (personal vehicle). District vehicle is preferred, for which mileage reimbursement does not apply.
- 7) Once the advance check has been issued, any changes or cancellation of the trip will require the return of part or all of the advanced funds to the District by the employee within five (5) business days of the cancellation.
- 8) The use of per diem and advance payment is preferred. An employee who does NOT receive an advance travel check must claim reimbursement for travel expenses using the Expense Reimbursement Form with attached detailed receipts. Alcohol is not reimbursable. Meal reimbursements shall not exceed per diem as calculated by GSA. Per diem checks are NOT available after-the-fact.
- 9) Should additional expenses be incurred on the trip, employee shall submit an Expense Reimbursement Form with receipts upon return.

¹ For example: Continental breakfast provided by the hotel, lunch provided during conference.

Humboldt Bay Municipal Water District		Revision Number	1	Revision Date	10/20/17
Standard Operating Procedure	All	Revised by	Harris	Revision Approval	
Subject: Per Diem & Travel Advance Procedures		Revision Description	Draft		Page 1 of 2

Per Diem & Travel Advance Procedures

Intent:

- Reduce/eliminate out-of-pocket costs for employees when travelling on District business by providing a per diem/travel advance check up to two weeks prior to travel.
- Streamline process for approval and accounting, while maintaining integrity of internal control.

Procedures (All):

- A. Once travel needs are known, complete the top portion of the Per Diem/Travel Advance Request Form and forward to the Eureka Office. **This can and should be done sooner rather than later to allow enough time to calculate and process the per diem/travel advance check.** The check will not be issued more than two weeks in advance of the travel event.
- B. The Eureka Office will designate one member of it's staff to be the "Travel Administrator" who will complete the remainder of the form. (See Travel Administrator Procedures below)
- C. Once the Per Diem/Travel Advance Request Form is completed by the Eureka Office, it is routed for approval and signatures.
- D. Traveling employee and/or supervisor are responsible to advise Travel Administrator of specific concerns or changes in a timely manner.
- E. Once the signed Per Diem/Travel Advance Form is reviewed, approved, and returned, a check will be issued to the employee
- F. The employee is not required to keep receipts for meals & incidentals.
- G. If the travel plans change or are cancelled, any/all advance funds are due back to the District immediately. Failure to do so may be grounds for termination.
- H. The use of per diem and travel advances are required. Any exception must be approved by the General Manager, Superintendent or Business Manager. An employee who does NOT receive a per diem/travel advance check must claim reimbursement for travel expenses using the Expense Reimbursement Form and attach detailed receipts. Alcohol is not reimbursable. Meal reimbursements shall not exceed per diem as calculated by GSA. Per diem checks are NOT available after-the-fact.
- I. If additional expenses are incurred while traveling, the employee is responsible to submit an Expense Reimbursement Form with detailed receipts for reimbursement.

Travel Administrator Procedures:

- A. It is the responsibility of the "Travel Administrator" to:
 - a. Look up per diem rate and calculate per diem advance using *GSA.gov/perdiem*. (see #2 below)
 - b. Calculate estimated mileage and mileage advance. (see #3 below)
 - c. Make lodging reservations. (see #4 below)
 - d. Gather and assemble all documentation in an auditable format.
 - e. Provide assembled packet for review/approvals to management and employee.
 - f. Be the contact person for any questions/concerns regarding travel.
 - g. Ensure that employee receives advance check prior to departure for travel.

Humboldt Bay Municipal Water District		Revision Number	1	Revision Date	10/20/17
Standard Operating Procedure	All	Revised by	Harris	Revision Approval	
Subject: Per Diem & Travel Advance Procedures		Revision Description	Draft		Page 2 of 2

- B. Per diem advance:
- a. Look up per diem rate on the GSA.gov website using destination zip code. The allocation (breakfast/lunch/dinner/incidentals) can also be found here. Print out two pages: one page showing the full diem rate and one page showing the meal breakdown. (all meal breakdowns are shown on the same page).
 - b. Make sure there is a complete understanding of the itinerary – how many days at the event and how many days are needed to travel to/from the event. Travel days are advanced at 75% of the per diem rate.
 - c. Check to see if any meals are provided at the event or by the hotel (continental breakfast is common). Deduct these meals accordingly based on the allocation from gsa.gov.
 - d. Enter the per diem information as well as the number of full days and the number of travel days – the total should be self-calculating.
 - e. Attach back-up to the Per Diem/Travel Advance Form
- C. Mileage rate: (Employee's personal vehicle only)
- a. Use the current IRS mileage rate.
 - b. Use mapquest or other website to calculate the total mileage of the trip from point of origin to destination and back. Print out screenshot for back-up.
 - c. If employee is not staying onsite and is required to travel from lodging to training facility, calculate that mileage as needed.
 - d. Enter the mileage on the Per Diem/Travel Advance Form.
- D. Lodging reservation:
- a. Make a reservation using the Government Rate for employee using District Credit Card. Travel Administrator should attempt to pay the hotel directly, but it is understood that this is often not possible. Typically the employee is required to provide a personal credit card at the time of check in. If a Supervisor is traveling, their District Credit Card should be used at check-in.
 - b. Print copy of the reservation for back-up and attach to Per Diem/Travel Advance Form.
- E. If there are any additional expenses that require an advance, list them under "OTHER" and attach back-up.
- F. Forward the completed form and all back-up to either General Manager, Superintendent, or Business Manager and employee for review and approval.
- G. Once the Per Diem/Travel Advance Form has been calculated, assembled, approved, and signed, the check can be issued to the employee. While the calculations and approval can occur well in advance of the travel, the check should not be issued more than two weeks in advance of travel.

Appendix F

Humboldt Bay Municipal Water District
Workplace Illness and Injury Prevention Program

General Philosophy

The Humboldt Bay Municipal Water District (HBMWD) is committed to providing a safe and healthful working environment for all of its employees. The desired results of such efforts are: 1) to minimize the risks of industrial illness or injury to District employees, 2) to maintain a productive work force; and, 3) to foster an atmosphere of adherence to safety practices.

This plan has been prepared to respond to the requirements of SB 198 and regulations adopted to implement the legislation. It is not intended to be a comprehensive safety document. Rather, it is a framework plan to be used in conjunction with other safety resources to promote a healthful and safe working environment.

Program Outline

The District's Workplace Illness and Injury Prevention Program (WIIPP) is made up of the following key elements, each of which is described in detail below:

1. Safety Organization
2. Workplace Safety Inspections and Hazard Elimination
3. Employee Training / Training Records
4. Management - Employee Communication
5. Safety Policies / Procedures
6. Employee Safety Responsibility / Discipline
7. Recognition of Outstanding Safety Performance
8. Protective Gear / Devices
9. Accident Investigations
10. Record Keeping

Safety Organization

The General Manager is responsible for establishing, maintaining and controlling an effective safety program in accordance with the "General Philosophy" stated above and which meets the requirements of State law, specifically SB198.

The District Superintendent is responsible to the General Manager for implementing the District's WIIPP, including the following specific responsibilities:

- Chair the employer/employee Safety Committee.
- Implement periodic safety inspections.
- Implement required employee safety training.
- Perform or review all accident investigations

- Recommend amendments to the WIIPP.
- Recommend outstanding safety recognitions.
- Recommend discipline for safety violations.

Supervisors are responsible to the District Superintendent for implementing the District's WIIPP, including the following specific responsibilities:

- Serve on the Employer/Employee Safety Committee as required.
- Assist in safety inspections as required.
- Perform accident investigations involving employees under their supervision.
- Enforce the District's safety policies.
- Assure availability of needed safety equipment and protective devices.
- Train employees in safe work practices and hazard avoidance.
- Know the rules of safety that apply to their areas of responsibility.

The Business Manager is responsible to the General Manager for implementing the WIIPP with the administrative staff at the Eureka office.

Employees are required to follow the District's safety policies and to stay aware of and immediately report workplace hazards. Specific employee responsibilities include:

- Know the District's safety rules and implement them.
- Perform work in a manner that ensures their own safety as well as that of their fellow employees.
- Work free of the influence of alcohol, drugs or medicines that affect safe performance of work duties.
- Participate in scheduled safety meetings and training sessions.
- Make use of all protective devices and equipment supplied by the District to make work safer.
- Avoid horseplay or any act that adversely affects the safety of others.
- Report accidents, or unsafe working conditions, equipment or practices promptly to their supervisor or other responsible person.

The Safety Committee's responsibilities include the following:

- Review and make recommendations about the content of in-house employee safety training.
- Review the results of periodic work site inspections.
- Review the District's WIIPP and recommend changes.
- Review and evaluate employee safety suggestions.

- Review investigations of workplace accidents and hazardous conditions reports and, where appropriate, submit suggestions to management for prevention of future incidents.
- Verify compliance with OSHA abatement actions if requested to do so by OSHA officials.

The Safety Committee will meet at least quarterly and is composed of employer and employee representatives. It will be chaired by the District Superintendent, and will include:

- One Supervisor and two employees, from different operating units, appointed by the Committee Chair for a period of one year. The appointment will be rotated among all supervisors and employees in subsequent years.

The Committee Chair will cause minutes to be kept of all Safety Committee meetings. These minutes will be posted for thirty days on the employee bulletin board, and will be kept in master files at Essex and in the District's Eureka Office.

Workplace Safety Inspections and Hazard Elimination

The basic purpose of the District's periodic safety inspections is to identify workplace hazards such as unsafe work conditions or work practices. The inspection should also include an evaluation of the seriousness of the hazards and, provide alternatives to eliminate them, including employee safety training where indicated. Workplace hazards can be reported a number of ways:

- Through an assigned inspection
- Verbally at any time to any Supervisor
- To any member of the SB 198 Safety Committee
- Through an equipment repair work order

Workplace hazards are to be corrected as soon as possible after they are identified. In the event the hazard cannot be eliminated immediately, a plan and target date for correction will be developed and implemented. When an imminent hazard exists, which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. Workplace hazard corrective actions are tracked in a number of ways:

- SB 198 Safety Committee minutes
- Spreadsheets for employee safety award
- Work Orders

The District, recognizing that preventive maintenance of its tools, machinery and equipment can reduce workplace hazards, will conduct such preventive maintenance as appropriate. Safety inspections will include at least one overall annual review of the District's facilities and safety practices using the self-inspection checklist included in the Safety Policies Procedures Manual. The chlorine facilities must be inspected by at least one person knowledgeable in the District's chlorination system and process.

Additional safety inspections will be scheduled as needed. Specific triggers to additional safety inspections are:

- When the Program is first established
- Whenever new substances, processes, procedures, or equipment are introduced into the workplace.
- Whenever new or previously unrecognized hazards arise or are discovered.

These types of specialized inspections will have as their primary object the development of new or amendment of existing safety practices to assure employee protection. All safety inspections will be reviewed by the Safety Committee to aid optimum follow up actions.

Employee Training / Training Records

Employees hired by the District are expected to follow basic safe work practices. If unsure about safety practices related to a specific work assignment, they are to seek clarification or explanation of safe work practices before proceeding with such assignment

In addition, the District will conduct periodic training designed to help employees recognize, avoid and deal with hazards likely to be encountered while working for the District. Training is an on-going activity, but will be specifically provided to new employees or employees given a new assignment, or when new hazards, procedures, processes, or equipment are discovered in or introduced to the workplace.

Training will be provided on the basis of an assessment of the employee's need for training and may be in the form of written safety material or formal classroom or on-the-job training sessions. The following policies will be reviewed in a formal safety session at least once per year:

- Confined spaces policies, procedures and equipment.
- Hazardous substances policy, including use of SDS's.
- Respirator safety policy, including medical evaluation where needed.

Chlorine safety and leak response training sessions will be held annually- in conjunction with other local qualified emergency responders when possible. These sessions will focus on the emergency notification procedures to be activated in the event of a serious chlorine emergency such as a chlorine line leak or tank rupture; and proper use and fit of SCBA's and Class "A" protective suits; and deployment and use of de-contamination equipment. The object of the training is to assure that all Essex employees understand how to activate the County's Hazardous Material Incident Plan and the District's role in that plan; how to notify other appropriate emergency responders that a chlorine emergency requires their response; how to assist others; and, how to deal with and repair a chlorine leak.

First Aid and CPR training will be provided on a regular basis to assure certification of all field and operations' personnel.

Defensive Driver training will be provided at least every four years or more frequently on an as needed basis. These are formal classes usually set up via the District's insurance carrier and the California Department of Motor vehicles. In addition, "tailgate" sessions will be held as needed to provide training in general safe work practices such as lifting procedures, trenching protocols, and fire protection procedures.

Qualified persons will provide training. If done on an in-house basis, the qualifications of the trainer will be reviewed and, if necessary, supplemented with training needed to become qualified. All training will be logged in the employee's personnel file and a record of each session, including subject, speaker, date, and attendees kept in the safety training files at Essex and the District's Office.

Cellular Phone Safety Policy

Consistent with California law, the use of cellular phones without a hands-free device while driving on District business is prohibited. If you keep your cell phone on while driving, you must use a hands-free device. If you do not have a hands-free device, you must safely pull off the road to use your cellular phone. Under no circumstances, may a driver initiate a cellular phone call while driving a vehicle during the course of business. Texting while driving is strictly prohibited.

Management - Employee Communication

Several avenues of communication between management and staff have already been discussed above. Specifically, the formal training sessions, "tailgate" meetings, posted Safety Committee minutes and interim hazard notices are all crucial elements of the District's safety communication program. Safety bulletin boards are in the following

locations: Essex break room; TRF lab near work station; Hydro Electric Plant near office door; and Eureka Administrative Office in kitchen.

The Safety Policies and Procedures Manual, discussed below, is the other formal link in the process. This manual will be available to all employees at various locations including the office of the employee's supervisor, the District Superintendent's office, the Hydro plant Office at Ruth Lake, the headquarters building at Ruth Lake, the District Eureka Office, a reference copy at the counter in the Operations Office at Essex and at the Turbidity Reduction Facility (TRF).

A final reference document is Title 8 of the California Code of Regulations. This material is available online at www.dir.ca.gov/counters/t8index.htm, for reference purposes, to any employee of the District.

Safety Policies / Procedures

A manual outlining the District's safety policies and procedures will be available to all employees. It outlines the general safe work practices which employees are expected to observe while carrying out District work assignments.

The manual will be updated as needed. The General Manager will formalize the updates, with revision notices sent by the Business Manager to the following:

- The District Superintendent who is responsible for incorporating the updates into his manual.
- Each Supervisor who is responsible for updating his copy of the manual. The Water Operations Supervisor will also be responsible for updating the reference copy at Essex and at the TRF.
- The Hydro plant Operator who is responsible for updating the copies of the manual at the Hydro plant and headquarters building at Ruth Lake.
- The Business Manager at the District's Eureka Office who is responsible for updating the manual at the Eureka Office.

Employee Safety Responsibility / Discipline

Although the law places primary responsibility for occupational safety and health on the employer, certain responsibilities are also placed on employees. These responsibilities include:

- Obeying all occupational safety and health standards, rules and orders issued according to the law.
- Not removing, displacing, damaging, destroying, tampering with or carrying off safety devices, safeguards, notices or warnings.
- Using equipment (e.g. hard-hat, safety belt), safety devices (e.g. machine guards), methods or procedures which have been adopted for employee protection.

Employees who willfully disobey safety rules and procedures will be disciplined as circumstances may dictate per the HBMWD Employee handbook.

Recognition of Outstanding Safety Performance

In February or March of each calendar year, the District per the HBMWD Employee Handbook section 3011.1, will recognize each employee of the District who has met the established District safety incentive criteria for the preceding calendar year. The District will award one grand prize, based on a drawing of all eligible employees. The grand prize winner will be honored at the February or March meeting of the Board of Directors with a certificate of

recognition and a check of \$500. All other eligible employees will receive a certificate of recognition and a check for \$200 in recognition of their safe work habits.

The District also participates in the ACWA JPIA H. R. LaBounty safety award program.

Protective Gear / Devices

The District's policy of participating in the purchase of steel-toed shoes and prescription safety glasses is documented in the District's Employee Handbook. In addition, the District will supply all necessary protective gear including safety harnesses, lifelines, hard hats, respirators, boots, gloves, chlorine gas protective suits, self-contained breathing apparatus (SCBA), ear plugs, eye protectors, face shields, high visibility vests, eye washes, and first aid supplies. Any employee lacking such items or any other required PPE will bring the matter to the attention of his supervisor before proceeding with any project requiring any such gear.

Accident Investigation

All accidents and near misses involving District personnel or equipment will be investigated, whether or not employee or third-party injury is involved. The purpose of the accident investigation is twofold: 1) to provide data that will allow action to be taken to minimize recurrences; and 2) to provide proper reporting to: a) insurance carriers (i.e. worker's compensation, property, or liability) to allow expeditious processing of claims and b) regulatory agencies.

Accident investigation and analysis of the data gained from investigations can provide useful information such as:

1. Machines, tools, locations or type of assignment producing job injuries.
2. Revision of job practices producing job injuries.
3. Evaluation of effectiveness of District safety program.

The facts which need to be identified in an accident include who was involved, what happened, when did the accident occur, where did the accident occur and why did it happen? The "Supervisor's Report of Accident" must be filled out for any workers comp accident. This form is available from the District's worker's compensation insurance carrier.

The "Vehicle Accident Reporting Kit" should be used for reporting vehicle accidents. It is available through the insurance carrier, and copies are kept in each vehicle owned by the District.

The responsibilities for accident investigation are outlined in the section of this WIIPP entitled "Safety Organization". In addition to the specific forms noted above, the accident investigator should use the "Supervisor's Investigation Report", included in the Safety Policies & Procedures Manual, to the extent necessary to provide sufficient facts about the accident.

Record Keeping

Training Records

Records of all employee safety trainings shall be kept. A spreadsheet of all required trainings is kept and updated after each training event. The sign-in sheet and any handouts are also sent to the administrative office for recording and filing.

Accident Investigation

All accidents are investigated and records kept at the administrative office.

Summary

This plan has been prepared to respond to the requirements of SB 198 and regulations adopted to implement the legislation. It is not intended to be a comprehensive safety document. Rather, it is a framework plan to be used in conjunction with other safety resources to promote a healthful and safe working environment.

I HAVE RECEIVED A COPY OF THIS DOCUMENT AND AGREE TO COMPLY WITH ITS CONTENT.

DATE

NAME

HUMBOLDT BAY MUNICIPAL WATER DISTRICT DOT Substance Abuse Policy

I. Introduction

The purpose of this policy is to assure worker fitness for duty and to protect our employees and the public from risks posed by the use of alcohol and controlled substances. This policy is also intended to comply with all applicable Federal regulations governing workplace anti-drug programs in the transportation industry. The Federal Highway Administration (FHWA) of the Department of Transportation has enacted 49 CFR Part 382 that mandate urine drug testing and breathalyzer alcohol testing for safety-sensitive positions and prevents performance of safety-sensitive functions when there is a positive test result. The Department of Transportation has also enacted 49 CFR Part 40 that sets standards for the collection and testing of urine and breath specimens. In addition, the Department of Transportation has enacted 49 CFR Part 29, "The Drug-Free Workplace Act of 1988," which requires the establishment of drug free workplace policies and the reporting of certain drug-related offenses to the Department of Transportation. The policy incorporates those requirements of safety-sensitive employees and others when so noted.

The District recognizes that the use of alcohol and/or controlled substances in the workplace is not conducive to safe working conditions. In order to promote a safe, healthy and productive work environment for all employees, it is the objective of the District to have a work force that is free from the influence of alcohol and controlled substances.

The District is dedicated to assuring fair and equitable application of this Substance Abuse Policy. Therefore, supervisors are required to administer all aspects of the policy in an unbiased and impartial manner. Any supervisor who knowingly disregards the requirements of this policy, or who is found to deliberately misuse the policy with respect to his/her subordinates shall be subject to disciplinary action, up to and including termination.

II. Safety Sensitive Employees

This policy applies to all safety-sensitive employees and contractors when they are on District property or when performing any District related business. It applies to off-site lunch periods and breaks when a safety-sensitive employee is scheduled to return to work. Visitors, vendors, and contracted employees are governed by this policy while on District premises, and they will not be permitted to conduct business if found to be in violation of this policy.

A safety-sensitive position is defined as any position requiring the use of a Class "A" or Class "B" commercial drivers license. The following positions are considered District safety-sensitive employee (function and/or position) classifications: Hydroelectric Operator, Maintenance Mechanic, Maintenance Supervisor, and Superintendent. A safety sensitive function during any period in which that employee is actually

performing, ready to perform or immediately available to perform any safety-sensitive functions.

III. Prohibited Substances

"Prohibited substances" addressed by this policy include the following: Drugs: Cannabis, amphetamines, opiates, phencyclidine (PCP) and cocaine. Alcohol: This use of beverages or substances, including any medication, containing alcohol such that it is present in the body at a level in excess of that stated in Department of Transportation guidelines while actually performing, ready to perform, or immediately available to perform any District business is prohibited. "Alcohol" is defined as: the intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohol, including methyl or isopropyl alcohol.

IV. Prohibited Conduct

Manufacture, Trafficking, Possession, and Use Any safety-sensitive employee engaging in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance or alcohol on District premises, in District vehicles or while conducting District business off the premises is absolutely prohibited. Violation will result in removal from safety-sensitive duty and referral to a Substance Abuse Professional (SAP).

Impaired/Not Fit for Duty Any safety-sensitive employee who is reasonably suspected of being impaired, under the influence of a prohibited substance, or not fit for duty shall be removed from safety-sensitive job duties and be required to undergo a reasonable suspicion controlled substance or alcohol test. Employees failing to pass this reasonable suspicion controlled substance or alcohol test shall remain off duty and be referred to a Substance Abuse Professional (SAP). A controlled substance or alcohol test is considered positive (failed) if the individual is found to have a quantifiable presence of a prohibited substance in the body above the minimum thresholds defined in the Department of Transportation guidelines.

Alcohol Use No safety-sensitive employee may report for duty or remain on duty when his/her ability to perform assigned functions is adversely affected by alcohol or when his/her breath alcohol concentration is 0.04 or greater. No safety-sensitive employee shall use alcohol while on duty or while performing safety-sensitive functions. Violation of this provision is prohibited and will subject the employee to removal from safety-sensitive duty and referral to a Substance Abuse Professional (SAP).

Compliance with Testing Requirements All safety-sensitive employees are subject to controlled substance testing and breath alcohol testing. Any safety-sensitive employee who refuses to comply with a request for testing, who provides false information in connection with a test or who attempts to falsify test results through tampering, contamination, adulteration, or substitution shall be removed from duty immediately and be referred to a Substance Abuse Professional (SAP). Refusal to submit to a test can include an inability to provide a urine specimen or breath sample without a valid medical

explanation, as well as a verbal declaration, obstructive behavior or physical absence resulting in the inability to conduct the test.

Treatment/Rehabilitation Program An employee with a controlled substance and/or alcohol problem will be afforded an opportunity for treatment in accordance with the following provisions:

- A Rehabilitation Program is available for safety-sensitive employees who have tested positive for a prohibited substance on a one time basis only. Employee will be immediately terminated on the occurrence of a second verified positive test result. Program costs and subsequent controlled substance and/or alcohol testing costs will be paid by the safety-sensitive employee. When recommended by the Substance Abuse Professional (SAP), participation and completion of the rehabilitation program is mandatory. Failure of a safety-sensitive employee to attend and/or complete a prescribed program will result in termination from employment. Prior to return-to-duty testing, an employee must follow the rehabilitation program recommended by the SAP and agree to and sign a Return-To-Duty Agreement. The duration and frequency of follow-up testing will be determined by the SAP but will not be shorter than one year or longer than five years.
- All employees who feel they have a problem with controlled substances and/or alcohol may request voluntary admission to a rehabilitation program. Requests must be submitted to the General Manager or his/her designee for review. Program costs and subsequent controlled substance and/or alcohol testing costs will be paid by the safety-sensitive employee. An employee failing to complete the program will be subject to termination from employment. An employee completing a rehabilitation program must agree to and sign a Return-To-Duty Agreement, pass a return-to-duty controlled substance and/or alcohol test and be subject to unannounced follow-up testing for 36 months following return to duty. A positive result on the return-to-duty test or on the unannounced follow-up tests within a 36 month period will result in termination from employment.
- Participants in the rehabilitation program may use accumulated sick leave and vacation, if any.

V. Testing for Prohibited Substances

Analytical urine controlled substance testing and breath testing for alcohol will be conducted as required under Department of Transportation guidelines. All safety-sensitive employees shall be subject to testing prior to employment, randomly, for reasonable suspicion, and following an accident, as defined in the Department of Transportation guidelines. In addition, all safety-sensitive employees will be tested prior to returning to duty after failing a controlled substance and/or alcohol test. Employees

who have returned to duty will be subject to unannounced follow-up tests for up to five years, as determined by a Substance Abuse Professional (SAP). Safety-sensitive employees who perform safety-sensitive functions as defined in the Department of Transportation guidelines shall also be subject to testing on randomly selected, unannounced basis.

Testing shall be conducted in a manner to assure a high degree of accuracy and reliability and using techniques, equipment, and laboratory facilities which have been approved by the Department of Health and Human Services (DHHS). All testing will be conducted consistent with the procedures put forth in the Department of Transportation guidelines.

The controlled substances that will be tested for include marijuana, cocaine, opiates, amphetamines, and phencyclidine (PCP). An initial controlled substance screen will be conducted on each specimen. For those specimens that are positive, a confirmatory Gas Chromatography/Mass Spectrometry (GC/MS) test will be performed. The test will be considered positive if the controlled substance levels present are above the minimum thresholds established in the Department of Transportation guidelines.

Tests for alcohol concentration will be conducted utilizing an approved Evidential Breath Testing device (EBT) operated by a trained Breath Alcohol Technician (BAT). If the initial test indicated an alcohol concentration of 0.02 or greater, a confirmation test will be performed to confirm the result of the initial test. An employee who has a confirmed alcohol concentration of 0.02 but less than 0.04 will be removed from his/her position for at least twenty-four hours unless a retest results in an alcohol concentration 0.02 or less. An alcohol concentration of 0.04 or greater will be considered a positive alcohol test and in violation of Department of Transportation guidelines and this policy.

Any safety-sensitive employee who has a confirmed positive controlled substance or alcohol test will be removed from his/her position, informed of educational and rehabilitation program available, and evaluated by a Substance Abuse Professional (SAP).

The District affirms the need to protect individual dignity, privacy and confidentiality throughout the testing process.

Employees in Safety-sensitive positions may be tested under any of the following circumstances:

- Pre-Employment Testing All applicants for safety-sensitive classifications shall undergo urine controlled substance testing prior to employment. Receipt of a satisfactory test result is required prior to employment and failure of a controlled substance test will disqualify the applicant from further consideration for employment. Pre-Employment testing requirements will be conducted in compliance with current law. All existing safety-sensitive employees who have been on an unpaid leave of absence and during that period were removed from the random testing pool, shall be subject to

undergo urine controlled substance testing prior to reinstatement to their regular duties.

- Reasonable Suspicion Testing All safety-sensitive employees will be subject to urine and/or breath testing when there is a reasons to believe that controlled substances or alcohol use is adversely affecting job performance. A reasonable suspicion referral for testing will be made on the basis of documented objective facts and circumstances which are consistent with the effects of substance abuse. Examples of reasonable suspicion include, but are not limited to, the following:
 1. Adequate documentation of unsatisfactory work performance or on-the-job behavior.
 2. Physical signs and symptoms consistent with prohibited substance use.
 3. Occurrence of a serious or potentially serious accident that may have been caused by human error.
 4. Fights (to mean physical contact), assaults and flagrant disregard or violations of established safety, security, or other operation procedures.

Reasonable suspicion determinations will be made by a supervisor who is trained to detect the signs and symptoms of controlled substance and alcohol use and who reasonably concludes that an employee may be adversely affected or impaired in his/her work performance due to prohibited substance abuse or misuse.

- Post-Accident Testing Safety-sensitive employees will be required to undergo controlled substance and/or breath alcohol testing if they are involved in an accident with a District vehicle that results in a fatality. This includes all safety-sensitive employees who are on duty in the vehicles and any other whose performance could have contributed to the accident. In addition, a post-accident test will be conducted if an accident results in injuries requiring transportation to a medical treatment facility; or where one or more vehicles incurs disabling damage that requires towing from the site; and the safety-sensitive employee receives a citation under State of local law for a moving traffic violation arising from the accident.

Following an accident, the safety-sensitive employee will be tested as soon as possible, but not to exceed eight hours for alcohol and 32 hours for controlled substances. Any employee who leaves the scene of the accident without appropriate authorization prior to submission to controlled substance and alcohol testing will be considered to have refused the test and subject to termination. Post-accident testing of safety-sensitive employees will include not only the operation personnel, but any other covered employees whose performance could have contributed to the accident.

- Random Testing Employees working in safety-sensitive classifications will be subjected to randomly selected, unannounced testing. The random

selection will be by a scientifically valid method. Each safety-sensitive employee will have an equal chance of being tested each time selections are made. Safety-sensitive employees will be tested either just before departure, or during duty, or just after the safety-sensitive employee has ceased performing his/her duty.

- Return-to-Duty Testing All safety-sensitive employees who previously tested positive on a controlled substance or alcohol test must test negative and be evaluated and released to duty by the Substance Abuse Professional (SAP) before returning to duty. Employees will be required to undergo unannounced follow-up controlled substance and/or alcohol breath testing following returning to duty. The duration and frequency will be determined by the SAP. However, it shall not be less than 6 tests during the first 12 months, nor longer than 60 months in total, following return to duty.
- Employee Requested Testing Any safety-sensitive employee who questions the result of a required controlled substance test under Department of Transportation guidelines may request that an additional test be conducted. This additional test may be conducted at the same laboratory or at a different DHHS certified laboratory. The test must be conducted on the split sample that was provided at the same time as the original sample. All costs for such testing are to be paid by the employee unless the second test invalidated the original test. The method of collecting, storing, and testing the split sample will be consistent with the procedures set forth in the Department of Transportation guidelines. The safety-sensitive employee's request for a retest must be made to the MRO within 72 hours of notice of the initial test result. Requests after 72 hours will only be accepted if the delay was due to documentable facts that were beyond the control of the employee.

VI. Employee Assessment

Any safety-sensitive employee who tests positive for the presence of controlled substances or whose breath alcohol concentration is above the minimum thresholds set forth in the Department of Transportation guidelines will be assessed by a Substance Abuse Professional (SAP). A SAP is a licensed physician, psychologist, social worker, employee assistance professional, or addiction counselor with knowledge of and clinically experienced in the diagnosis and treatment of alcohol related disorders. The SAP will evaluate each employee to determine what assistance, if any, the employee needs in resolving problems associated with prohibited substance abuse or misuse.

If a safety-sensitive employee is returned to duty following rehabilitation, he/she must agree to and sign a Return-To-Duty Agreement, pass a return-to-duty controlled substance and/or alcohol test and be subject to unannounced follow-up tests for a period of one to five years, as determined by the SAP. The cost of any rehabilitation and subsequent controlled substance and/or alcohol testing is borne by the safety-sensitive

employee and is on a one time basis only. Employee will be immediately terminated on the occurrence of a second verified positive test result. Employees may use accumulated sick leave, and vacation, if any, to participate in the prescribed rehabilitation program.

VII. Procedures

- **Procedures for Reasonable Suspicion Testing**

A safety-sensitive employee who may possibly be under the influence of alcohol and/or controlled substances is observed by a supervisor. Any employee may identify someone suspected of alcohol and/or controlled substance to any supervisor. Employees should realize, however, that it is against District policy to make false or malicious statements about other employees and doing so can result in disciplinary action being taken against the offending employee. However, the supervisor must witness first hand the safety-sensitive employee's signs and symptoms.

The supervisor is then obligated to insure that the matter is immediately investigated. If possible, two supervisors determine (independently or together) that the safety-sensitive employee in question may indeed be under the influence of alcohol and/or controlled substances.

When the supervisor(s) suspect and believe that the safety-sensitive employee may be under the influence of alcohol and/or controlled substances, the safety-sensitive employee is then immediately suspended from duty (with pay) and driven by District staff (or others designated) to the District specified collection site. Because of a testing facility requirement, the safety-sensitive employee in question must show proof of identification, such as a photo drivers license or state-issued photo identification card.

Whenever practical, the Superintendent or General Manager should be notified in advance of the employee being taken to the collection site.

At the collection site, the safety-sensitive employee will be required to submit a urine sample in the event that controlled substances are suspected or a breath sample in the event that alcohol intoxication is suspected to the on-duty technician. Care will be taken to provide the safety-sensitive employee with maximum privacy without compromising the integrity of the sample.

The District will take precautions to prevent the safety-sensitive employee being tested from going back to work and driving their own car home. Instead, the safety-sensitive employee will be given assistance in obtaining a ride home from the collection site.

The safety-sensitive employee whose test results are negative (0.02 alcohol concentration or less) will be reinstated. The safety-sensitive employee whose confirmation test results indicate an alcohol concentration greater than 0.02 but

less than 0.04, will not be permitted to return to duty or perform a safety-sensitive function for 24 hours after administration of the test. The safety-sensitive employee whose confirmation test result indicates an alcohol concentration of 0.04 or greater for alcohol will be referred to a District specified outside Substance Abuse Professional (SAP) who will assess the safety-sensitive employee's condition and make a recommendation for treatment which, if accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

The safety-sensitive employee whose controlled substance test results are verified negative will be reinstated. The safety-sensitive employee whose controlled substance test is verified positive by the Medical Review Officer will be referred to a District specified outside Substance Abuse Professional who will assess the safety-sensitive employee's condition and make a recommendation for treatment which, if accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

- **Procedures - Random Testing**

The compliance company notifies the supervisor to send the safety-sensitive employee to the collection site for alcohol and/or controlled substance testing.

The supervisor notifies the safety-sensitive employee to go to the collection site for alcohol and/or controlled substance testing immediately. Because of a testing facility requirement, the safety-sensitive employee in question must have proof of identification, such as a photo drivers license or state-issued photo identification card.

At the collection site, the safety-sensitive employee will be required to submit a urine sample in the event that controlled substances are to be tested for, or a breath sample in the event that alcohol is being tested for to the on-duty technician. Care will be taken to provide the safety-sensitive employee with maximum privacy without compromising the integrity of the sample.

The safety-sensitive employee whose test results are negative (0.02 alcohol concentration or less) will be reinstated. The safety-sensitive employee whose confirmation test results indicate an alcohol concentration greater than 0.02 but less than 0.04, will not be permitted to return to duty or perform a safety-sensitive function for 24 hours after administration of the test. The safety-sensitive employee whose confirmation test result indicates an alcohol concentration of 0.04 or greater for alcohol will be referred to a District specified outside Substance Abuse Professional (SAP) who will assess the safety-sensitive

employee's condition and make a recommendation for treatment which, if accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

The safety-sensitive employee whose controlled substance test results are verified negative will be reinstated. The safety-sensitive employee whose controlled substance test is verified positive by the Medical Review Officer will be referred to a District specified outside Substance Abuse Professional who will assess the safety-sensitive employee's condition and make a recommendation for treatment which, if accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

- **Procedures Post Accident**

The safety-sensitive employee notifies a supervisor that an accident has occurred.

The supervisor determines that the circumstances of the accident warrant a post-accident test when a citation was issued or a fatality occurred. Thereafter, the supervisor directs the safety-sensitive employee to immediately go to the collection site for alcohol and controlled substance testing. Because of a testing facility requirement, the safety-sensitive employee in question must have proof of identification, such as a photo drivers license or state-issued photo identification card.

At the collection site, the safety-sensitive employee will be required to submit a urine sample for controlled substances and a breath sample for alcohol testing to the on-duty technician. Care will be taken to provide the safety-sensitive employee with maximum privacy without compromising the integrity of the sample.

The California Highway Patrol will be notified that an accident has occurred and that the safety-sensitive employee was instructed to go to the collection site.

The safety-sensitive employee whose test results are negative (0.02 alcohol concentration or less) will be reinstated. The safety-sensitive employee whose confirmation test results indicate an alcohol concentration greater than 0.02 but less than 0.04, will not be permitted to return to duty or perform a safety-sensitive function for 24 hours after administration of the test. The safety-sensitive employee whose confirmation test result indicates an alcohol concentration of 0.04 or greater for alcohol will be referred to a District specified outside Substance Abuse Professional (SAP) who will assess the safety-sensitive employee's condition and make a recommendation for treatment which, if

accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

The safety-sensitive employee whose controlled substance test results are verified negative will be reinstated. The safety-sensitive employee whose controlled substance test is verified positive by the Medical Review Officer will be referred to a District specified outside Substance Abuse Professional who will assess the safety-sensitive employee's condition and make a recommendation for treatment which, if accepted by the District, must be followed by the safety-sensitive employee. Failure to follow the accepted recommendations or refusal to submit to return-to-duty and unannounced follow-up testing will result in the safety-sensitive employee's termination.

- **Procedures for Return to Duty and Follow-up**

The compliance company notifies the District to send the safety-sensitive employee to the collection site for alcohol and controlled substance testing.

The supervisor notifies the safety-sensitive employee to immediately go to the collection site for alcohol and controlled substance testing. Because of a testing facility requirement, the safety-sensitive employee in question must have proof of identification, such as a photo drivers license or state-issued photo identification card.

At the collection site, the safety-sensitive employee will be required to submit a urine sample for controlled substances and a breath sample for alcohol testing to the on-duty technician. Care will be taken to provide the safety-sensitive employee with maximum privacy without compromising the integrity of the sample.

The safety-sensitive employee whose confirmation test results indicate an alcohol concentration greater than 0.02 or whose controlled substance test is verified positive will be terminated.

- **Procedures for Chain of Custody for Controlled Substance Specimens**

At the time a specimen is collected, the safety-sensitive employee will be given a copy of the specimen collection procedures. Urine will be in a wide-mouthed clinic specimen container which will remain in full view of the safety-sensitive employee until split, transferred to, sealed and initialed in two tamper-resistant urine bottles.

Immediately after the specimens are collected, the urine bottles will, in the presence of the safety-sensitive employee, be labeled and then initialed by the

employee. If the sample must be collected at the site other than the controlled substance and/or alcohol testing laboratory, the specimens will then be placed in the transportation container. The container will be sealed in the safety-sensitive employee's presence and the safety-sensitive employee will be asked to initial or sign the container. The container will be sent to the designated testing laboratory on that day or the earliest business day by the fastest available method.

A chain of custody form will be completed by the on-duty technician during the specimen collection process and attached to and mailed with the specimen.

- **Procedures for Specimen Collection of Strange and/or Unrecognizable Substances**

A safety-sensitive employee is observed with a strange and/or unrecognizable substance.

The supervisor, in the presence of a witness, places the strange and/or unrecognizable substance into a clear plastic bag. The bag is sealed, labeled and signed by both the supervisor and a witness.

An incident report is made and signed by both the supervisor and a witness. The plastic bag containing the specimen and a copy of the incident report is taken to the collection site for transportation to the laboratory for analysis.

- **Procedures for Alcohol Concentrations**

The safety-sensitive employee and the on duty Breath Alcohol Technician (BAT) complete the alcohol testing form to ensure that the results are properly recorded.

After an explanation of how the breathalyzer works, an initial breath sample is taken.

If the results of the initial test show an alcohol concentration of 0.02 or greater a second or confirmation test must be conducted. The confirmation test must not be conducted less than 15 minutes after, nor more than 20 minutes after the screening test.

The confirmation test will utilize Evidential Breath Testing devices that prints out the results, date and time, a sequential test number, and the name and serial number of the Evidential Breath Testing device to ensure the reliability of the results.

Humboldt Bay Municipal Water District

To: Board of Directors

From: Chris Harris

Date: January 11, 2021

Re: Review of ReMAT Contract Revenue (FY19-FY23)

Background

The District signed a ReMAT contract with PG & E in 2017. The Renewable Market Adjusting Tariff (ReMAT) is a feed-in tariff program for small renewable generators less than 3MW in size. Electricity generated as part of the ReMAT Program counts towards the utilities' RPS targets (Renewable Portfolio Standard, a percentage of electricity retail sales that must be served by renewable resources).

ReMAT Revenue received is based on kilowatts generated during different rate periods:

- Day (Peak) – Second highest reimbursement rate
- Mid-Day (Shoulder) – Lowest reimbursement rate
- Night – Highest reimbursement rate

ReMAT Revenue received is also impacted by the time-of-year when the kilowatts are generated:

- July-September – Average blended reimbursement rate of \$0.09
- October-February - Average blended reimbursement rate of \$0.10
- March-June - Average blended reimbursement rate of \$0.08

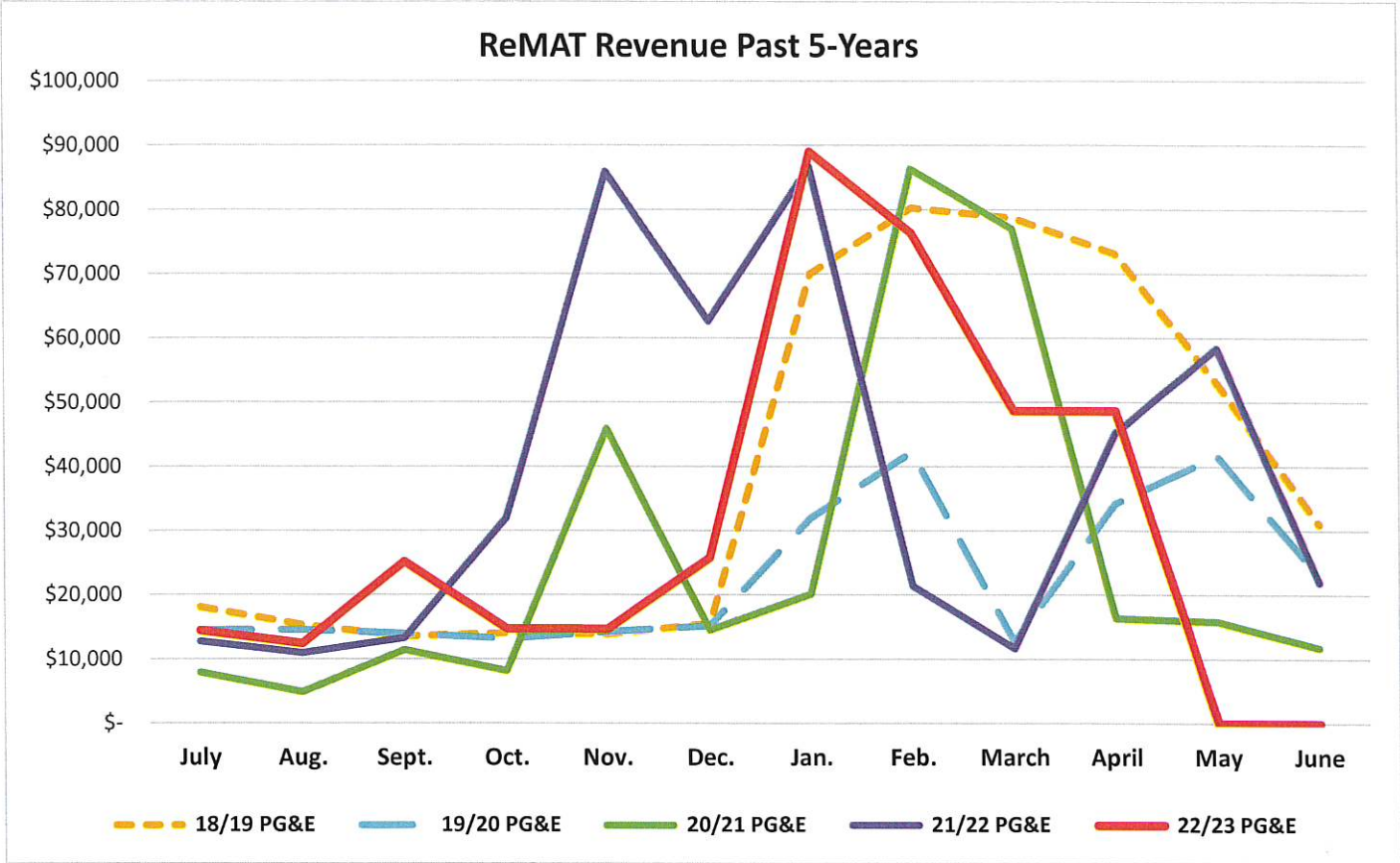
A graph showing the past 5-years of revenue received via ReMAT is attached.

Current

A PG & E transformer *“was taken out of service due to concerns around the transformers integrity¹”* on April 21, 2023. The transformer was replaced and back online December 12, 2023. During the 7 ½ months the transformer was out of service, the District was unable to generate power. This

¹ Email 5/5/2023, Dustin Dear, PG & E Manager – Distribution Operation Engineering

resulted in an estimated loss of revenue to the District of approximately \$219,000 (based on the average same-month revenue FY19-FY23)



Humboldt Bay Municipal Water District

To: Board of Directors
From: Chris Harris
Date: January 11, 2024
Re: Director Compensation, continued

Background

From the December 14, 2023 Staff Report:

Staff is providing requested information regarding Director compensation. Director compensation is part of the District Board Policy Handbook (last revised 2020), and is regulated by multiple sections of California Water Code (CWC). The CWC regulates the amount of compensation a Board of Directors can receive. This amount is set at an initial maximum of \$100, with 5% increases allowable each calendar year following the "operative date of the last adjustment to compensation."

An increase to Director compensation requires the Board to revise/approve an ordinance, following standard ordinance protocol requirements. Ordinance protocol requirements include:

- 1. First Reading (introduction of the draft ordinance);*
- 2. Public Notice (14-days prior to Public Hearing) and Public Hearing (typically held during a board meeting)*
- 3. Second Reading (during same meeting as Public Hearing)*
- 4. Vote/Approval (can also be during same meeting of Public Hearing, or can be delayed)*
- 5. Adoption (60-days from approval)*

Current

1. Based on the discussion during the December Board Meeting, staff is providing additional information regarding compensation and benefits received by Directors at other agencies (Director Compensation Comparison chart). Based on Director feedback last month, local cities have been excluded from the list.
2. Also based on the discussion during the December Board Meeting, staff has consolidated the "Potential Changes to Director Compensation" chart. As a reminder, based on California Water Code, Director Compensation could be increased up to 110% of current compensation (last adjustment was 2001 - 22-years ago) and does not need to tie to a specific 5% increase, but increase cannot exceed \$468.04/meeting.
3. Additionally, staff has provided information regarding the Secretary/Treasurer Compensation. The current monthly payment of \$262.50 has been in effect since 2001. Secretary/Treasurer Compensation is subject to the same guidelines as regular Director compensation as listed above (5% increases allowable each calendar year). Staff has included an additional chart "Potential Changes to Secretary/Treasurer Compensation" for discussion.

Staff Recommendation

Staff recommends the Directors review and discuss the information included and provide direction to staff.

Attachments

Director Compensation Comparison Chart w/District Compensation History
Potential Changes to Director Compensation Chart
Potential Changes to Secretary/Treasurer Compensation Chart

Director Compensation Comparison			
Municipal Agency	Compensation	Benefits	Est. Monthly* Compensation/ Benefits
Humboldt Bay Municipal Water District	\$160/full-day, \$80/half-day (4-hours or less)	Dental and Vision ¹	\$250.96
Fieldbrook-Glendale Community Services District	\$50/month, regardless of number of meetings	No Benefits	\$50
Fire Districts (Arcata, Fortuna, Humboldt Bay)	\$0/per meeting	No Benefits	\$0
Garberville Sanitary District	\$50/per meeting	No Benefits	\$50
Humboldt Bay Harbor, Recreations & Conservation District	\$600/month, regardless of number of meetings	CalPERS Health Program (Director pays 15% of monthly premium, District pays 85% calculated average of Gold & Premium Plans ²)	\$2,321.87
Humboldt Community Services District	\$100/meeting, \$50/each additional, \$400 max. (Regular Board Meetings twice monthly)	Full health, dental, and vision (w/option to decline). Life insurance available at Director expense. ³	\$2,430
Manila Community Services District	\$100/per "day of service"	No Benefits	\$100
McKinleyville Community Services District	\$150/per meeting	No Benefits	\$150
*Assuming only regularly scheduled meeting(s)/month			

District Board Compensation History

- 1986 – Board Compensation increased from \$50 to \$100 “to properly reflect the current provisions of the of the Municipal Water District Act.”
- 2001 – Board compensation increased from \$100 to \$160 by the passage of Ordinance 17 (attached).
- 2015 - Ordinance 17 was revised to include Director travel expenses associated with meetings outside of Humboldt County.

¹ Calculated using current HBMWD rates for “Employee+1” (dental \$72.40, vision \$18.56); \$160+\$72.40+\$18.56=\$250.96

² Estimated average calculated based on CalPERS Medical Rate Schedule, Region 1, 2-Party Plan \$2,025.73, calpers.ca.gov; (\$2025.73*85%)+600=\$2,321.87), Dental & Vision are extra

³ Directors can choose from various health plans, average cost of \$2,230 provided by HCSD 01/2024; \$200+\$2,230=\$2,430

Potential Changes to Director Compensation

	5% Increment Increase	Total Per/Meeting	Accumulated Increase Per/Meeting	Est. Annual Expense*	Est. Annual Change from Current
Current (Est. 2001)		\$160.00		\$ 9,600.00	
2010	55%	\$248.21	\$88.21	\$14,892.75	+\$5,292.75
Director Request #1	56.25%	\$250.00	\$90.00	\$15,000	+\$5,400
Director Request #2	87.5%	\$300.00	\$140.00	\$18,000	+\$8,400
2014	88.56%	\$301.70	\$141.70	\$18,102.23	+\$8,502.23
2023 (Max)	110%	\$468.04	\$308.04	\$28,082.50	+\$18,482.50

*Based on Five Directors, 12-months, does not include Secretary/Treasurer compensation

Potential Changes to Secretary/Treasurer Compensation

	5% Per/Month Increase	Total Per/Month	Accumulated Increase Per/Month	Est. Annual Expense*	Est. Annual Change from Current
Current (Est. 2001)		\$262.50		\$ 3,150.00	
2002	\$13.13	\$275.63	\$13.13	3,307.50	\$157.50
2003	13.78	289.41	26.91	3,472.88	322.88
2004	14.47	303.88	41.38	3,646.52	496.52
2005	15.19	319.07	56.58	3,828.84	678.84
2006	15.95	335.02	72.53	4,020.29	870.29
2007	16.75	351.78	89.28	4,221.30	1,071.30
2008	17.59	369.36	106.87	4,432.37	1,282.37
2009	18.47	387.83	125.34	4,653.98	1,503.98
2010	19.39	407.22	144.73	4,886.68	1,736.68
2011	20.36	427.58	165.09	5,131.02	1,981.02
2012	21.38	448.96	186.47	5,387.57	2,237.57
2013	22.45	471.41	208.92	5,656.95	2,506.95
2014	23.57	494.98	232.49	5,939.79	2,789.79
2015	24.75	519.73	257.24	6,236.78	3,086.78
2016	25.99	545.72	283.22	6,548.62	3,398.62
2017	27.29	573.00	310.51	6,876.05	3,726.05
2018	28.65	601.65	339.16	7,219.86	4,069.86
2019	30.08	631.75	369.24	7,580.85	4,430.85
2020	31.59	663.32	400.83	7,959.89	4,809.89
2021	33.17	696.49	434.00	8,537.89	5,207.89
2022	34.82	731.32	468.82	8,775.78	5,625.78
2023	36.57	767.88	505.39	9,214.57	6,064.57

OPERATIONS

Memo to: HBMWD Board of Directors
From: Dale Davidsen, Superintendent
Date: January 2, 2024
Subject: Essex/Ruth December 2023 Operational Report

Upper Mad River, Ruth Lake, and Hydro Plant

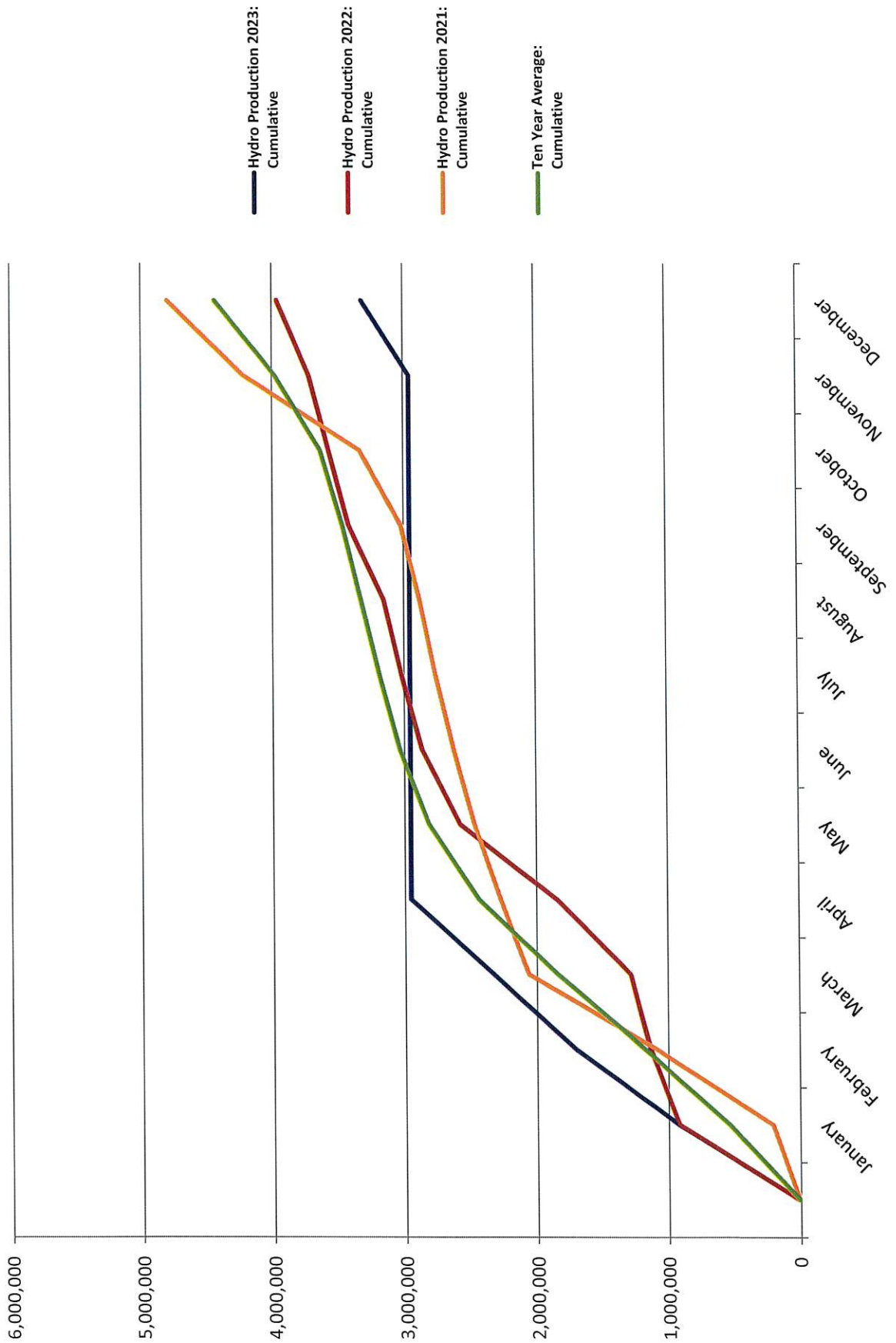
1. Flow at Mad River above Ruth Reservoir (Zenia Bridge) averaged 272 cfs for December with a high of 1,520 cfs on December 19th.
2. The conditions at Ruth Lake for December were as follows:
The lake level on December 31st was 2,655.50 feet which is:
 - 12.20 feet higher than November 30th, 2023
 - 5.42 feet lower than December 31st, 2022
 - 8.58 feet higher than the ten-year average
 - 1.50 feet above the spillway
3. Ruth Headquarters recorded 12.18 inches of rainfall for December.
4. Ruth Hydro produced 360,610 KWh in December. Production was resumed on December 12th; there were 234 days in lost production, due to PGE fault.
5. The lake discharge averaged 140 cfs with a high of 899 cfs on December 31st.

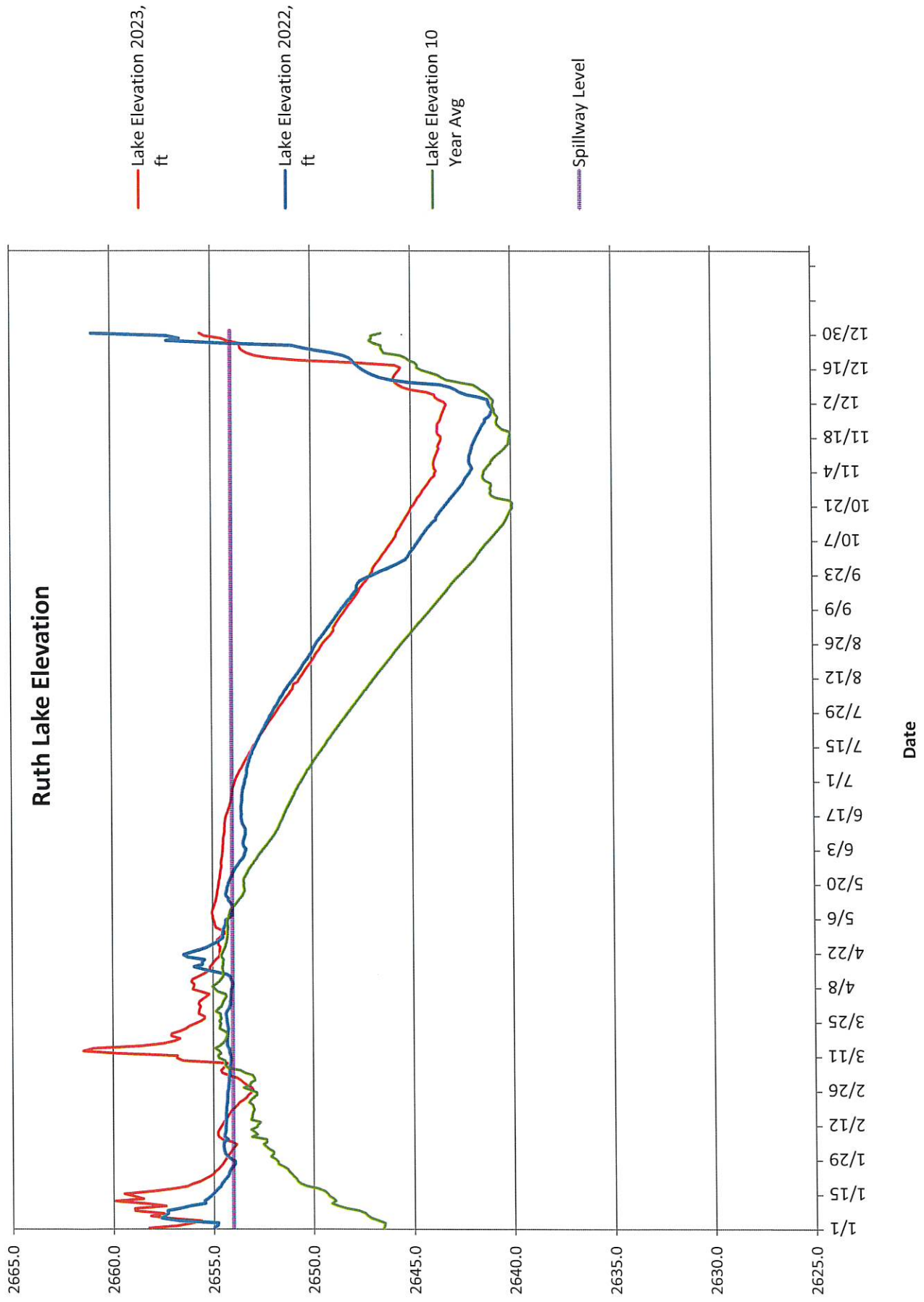
Lower Mad River, Winzler Control, and TRF

6. The river at Winzler Control Center, for December, had an average flow of 1,335 cfs. The river flow was at a high of 6,160 cfs on December 3rd.
7. The domestic water conditions were as follows:
 - a. The domestic water turbidity average was 0.08 NTU, which meets Public Health Secondary Standards.
 - b. As of December 31st, we pumped 229.920 MG at an average of 7.417 MGD.
 - c. The maximum metered daily municipal use was 7.913 MG on December 22nd.
8. The TRF is online; conditions for December were as follows:
 - a. Average monthly source water turbidity was 0.53 NTU.
 - b. Average monthly filtered water turbidity was 0.04 NTU.
 - c. Number of filter backwashes for the month was 42.

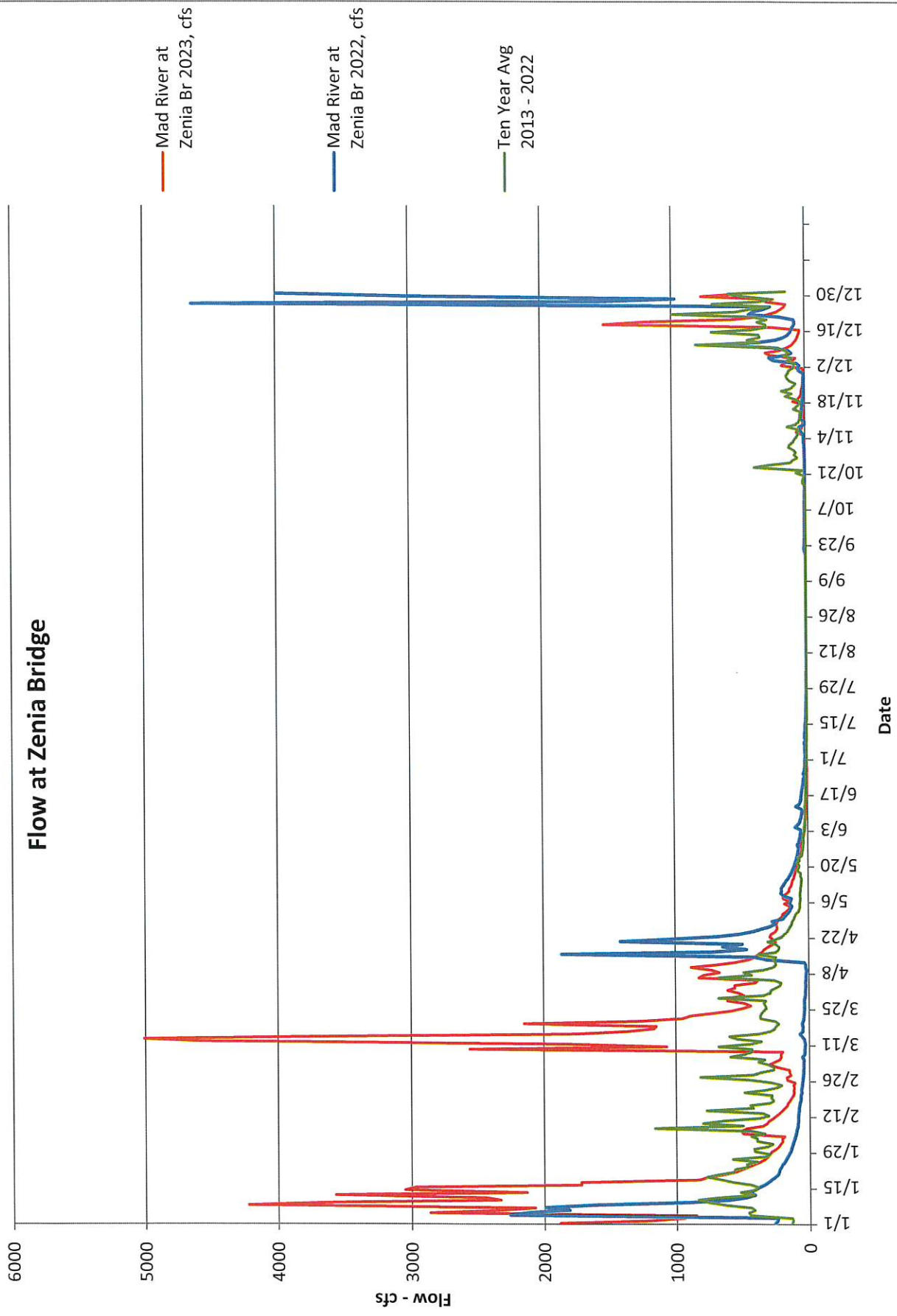
9. December 1st
 - a. 5 Essex staff attended an 8 Hr. HazWoper Refresher training at NCSC.
 - b. Removed graffiti from sidewalk at the Main Office.
10. December 4th
 - a. Essex & Ruth Staff conducted the annual FERC required EAP call down drill.
 - b. Peterson Cat on-site to repair the Cat 322CL excavator.
 - c. Six Rivers Comm was on-site repairing radio network – At Essex.
11. December 6th
 - a. 2 Essex staff to Ruth to install new HBV position signal equipment.
 - b. Annual inspections of Morris and Fieldbrook reservoirs
12. December 7th - Six Rivers Comm was on-site repairing radio network – At Ruth
13. December 8th
 - a. 1 Essex staff attended an 8 Hr. HazWoper Refresher training at NCSC.
 - b. Repaired vandalized fence at SBPS.
14. December 12th – We finally got permission to re-start the hydro plant from PG&E after their system upgrades.
15. December 13th
 - a. Tesla and PG&E on-site to do PPI for the Essex BESS.
 - b. SBPS annual inspection & maintenance
16. December 14th – Safety meetings
 - a. SDS, Right to Know
 - b. Spill Prevention
17. December 15th
 - a. Tesla BESS went online.
 - b. Repair TRF 100 kW generator coolant system
18. December 18 – 19th – Telstar on-site for annual CL2 system maintenance.
19. December 21st and 22nd – Peterson Cat on-site to do final repairs to Cat 322 CL excavator.
20. Current and Ongoing Projects
 - a. Collector 2 and Collector 2-meter, Communications project – In Progress
 - b. Tesla battery bank projects
 - i. Essex project in progress, operational programming in process, doing more testing soon, waiting for PG&E PTO.
 - c. OSHG – Equipment procurement and planning in progress. - Only the dosing pump left to receive.
 - d. Routine annual equipment maintenance and services.

Ruth Hydro Production: Cumulative kWh

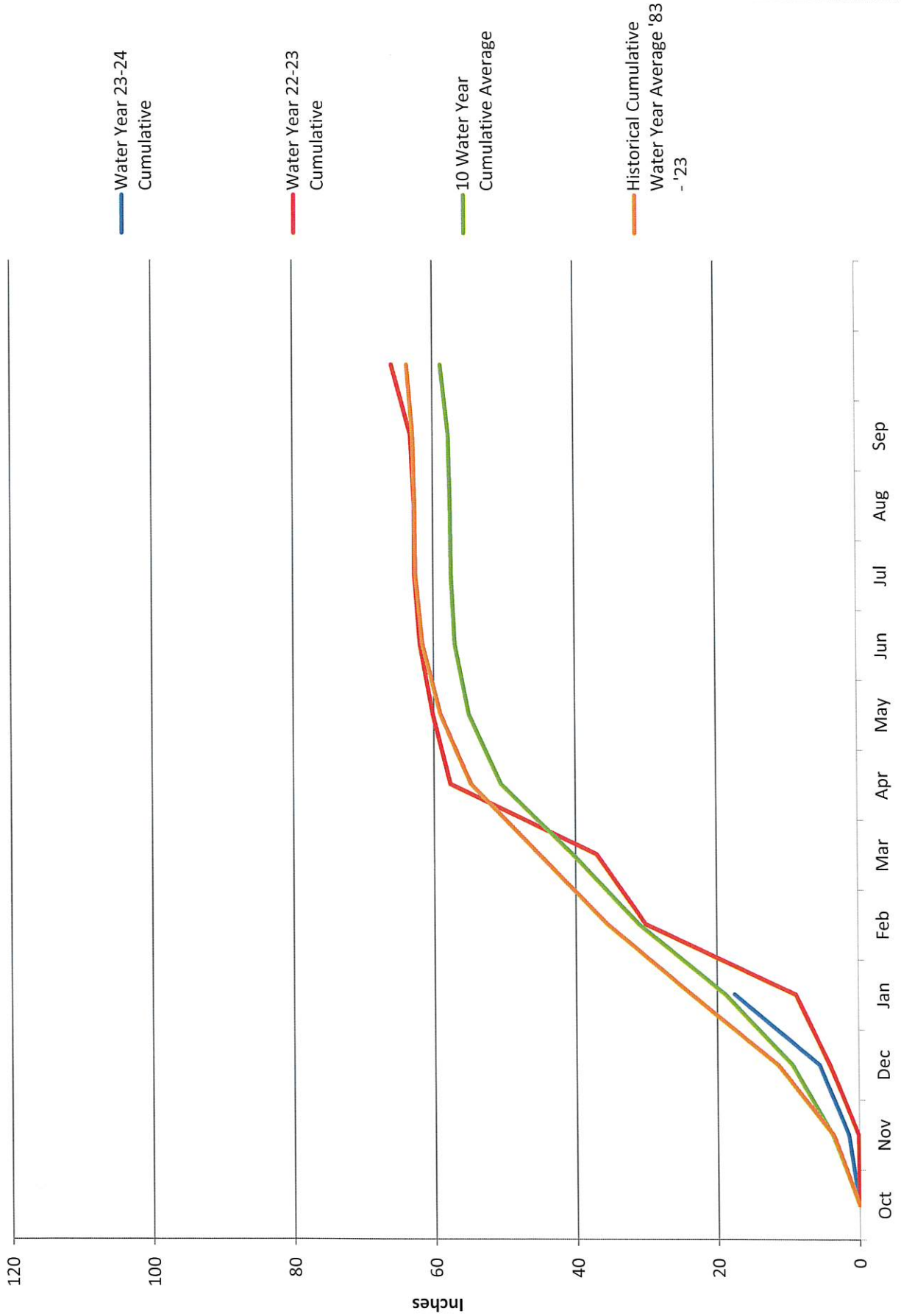


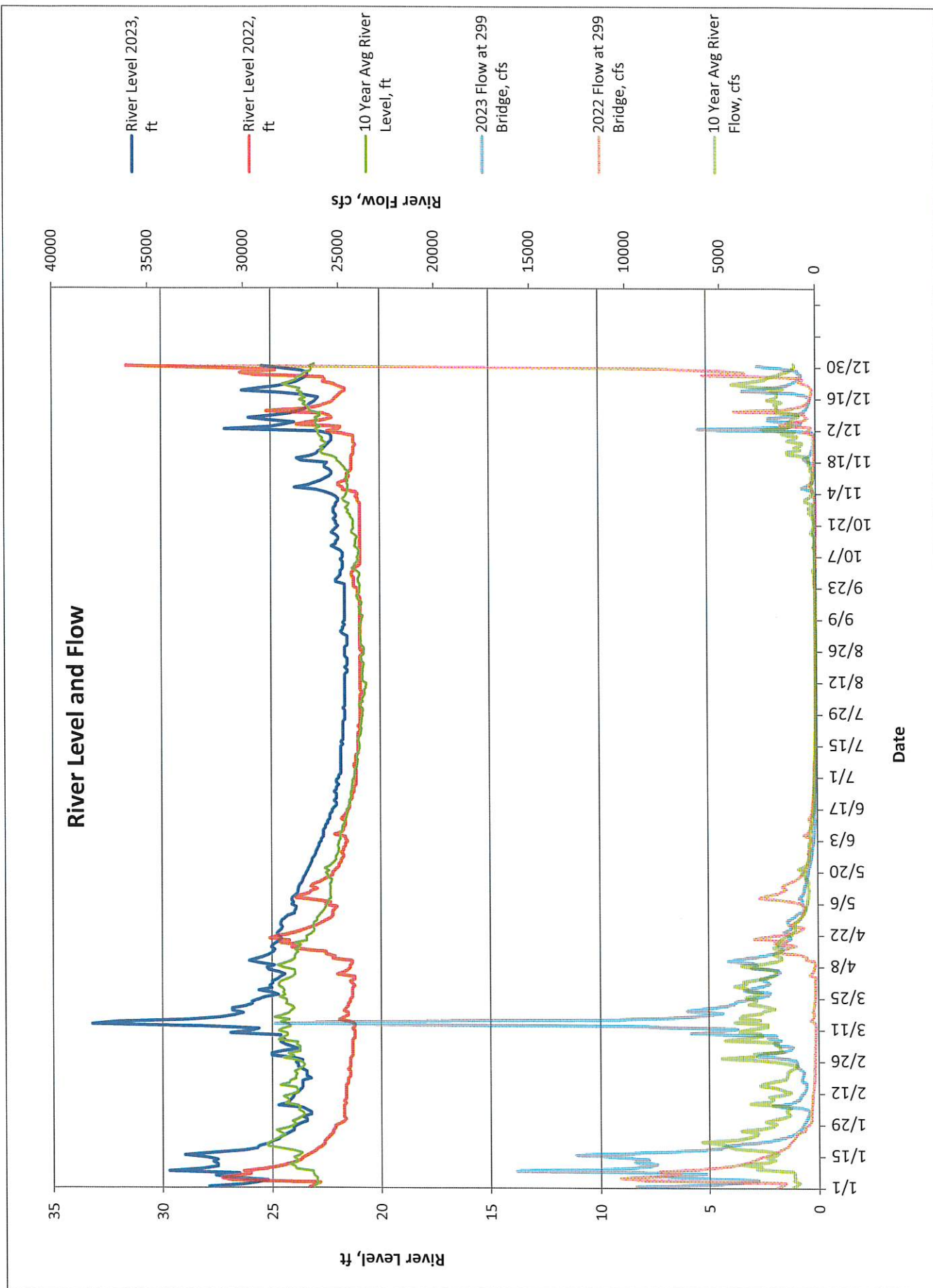


Flow at Zenia Bridge



Ruth Rainfall - Water Year 2023-2024





ACWA



[HOME](#) / [EVENTS](#) / [CONFERENCES](#) / [2024 SPRING CONFERENCE & EXPO](#)

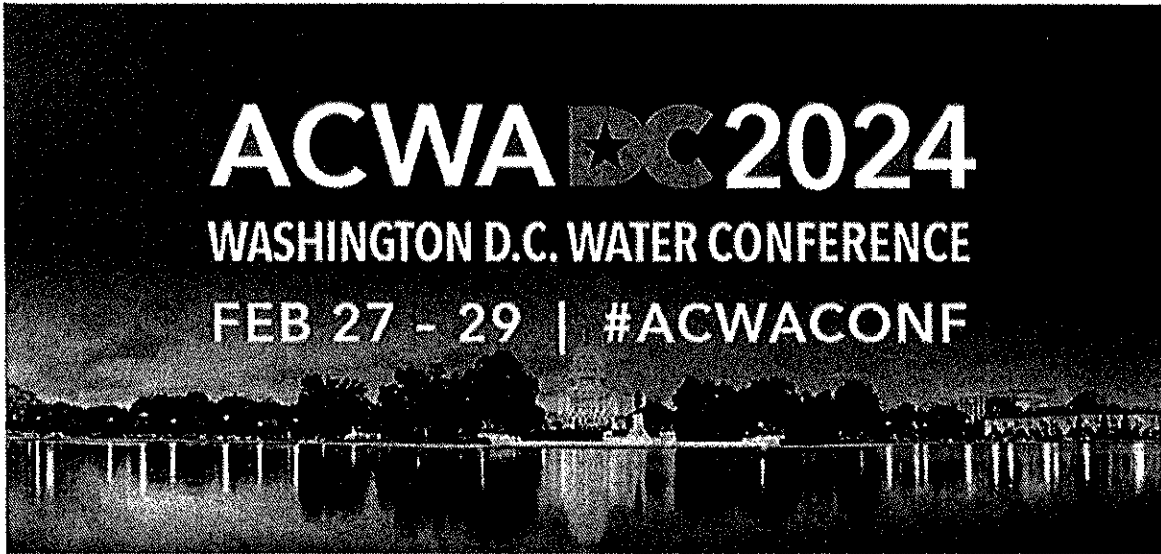
ACWA conferences are the premier destination for water industry professionals to learn and connect. Program offerings include Statewide Issue Forums, Town Hall discussions, Region Programs and sessions covering a wide range of topics including groundwater management, water rates issues, crisis communications, affordable drinking water issues, municipal finance, and more.

Specific details about this conference will be made available in the future. Please check back for updates.

ACWA - 2024-25 Committees by Region

Region	Committee Name	First Name	Last Name	Agency
	2024-2025 ACWA - Agricultural Committee			
		Dennis	Mayo	McKinleyville Community Services District
	2024-2025 ACWA - Communication Committee			
		Andrea	Rodriguez	Sonoma Water
		Elise	Miller	City of Santa Rosa - Water Department
	2024-2025 ACWA - Energy Committee			
		Tasha	Wright	City of Santa Rosa - Water Department
		John	Friedenbach	Humboldt Bay Municipal Water District
		Hannah	Davidson	Hidden Valley Lake Community Services District
	2024-2025 ACWA - Federal Affairs Committee			
		Brad	Sherwood	Sonoma Water
		Nicole	Dorotinsky	City of Santa Rosa - Water Department
		Dennis	Mayo	McKinleyville Community Services District
	2024-2025 ACWA - Finance Committee			
		Bruce	Rupp	Humboldt Bay Municipal Water District
	2024-2025 ACWA - Groundwater Committee			
		Peter	Martin	City of Santa Rosa - Water Department
		Elizabeth	Salomone	Mendocino County Russian River Flood Control & Water Conservation Improvement District
	2024-2025 ACWA - Legal Affairs Committee			
		Cory	O'Donnell	Sonoma Water
		Morgan	Biggerstaff	City of Santa Rosa - Water Department
		Robert	Donlan	Montague Water Conservation District
		Molly	MacLean	Marin Municipal Water District
	2024-2025 ACWA - Local Government Committee			
		Tamara	Alaniz	Brooktrails Township Community Services District
	2024-2025 ACWA - Membership Committee			
		Jennifer	Burke	City of Santa Rosa - Water Department
		Bruce	Rupp	Humboldt Bay Municipal Water District
	2024-2025 ACWA - State Legislative Committee			
		Brad	Sherwood	Sonoma Water
		Nicole	Dorotinsky	City of Santa Rosa - Water Department
		Hannah	Davidson	Hidden Valley Lake Community Services District
		Elizabeth	Salomone	Mendocino County Russian River Flood Control & Water Conservation Improvement District
	2024-2025 ACWA - Water Management Committee			
		Elizabeth	Salomone	Mendocino County Russian River Flood Control & Water Conservation Improvement District
		Peter	Martin	City of Santa Rosa - Water Department
	2024-2025 ACWA - Water Quality Committee			
		Antonio	Llamas	City of Santa Rosa - Water Department
		Emma	Walton	Sonoma Water

Region	Committee Name	First Name	Last Name	Agency
	2024-2025 ACWA - Agricultural Committee			



Meet and join fellow water agencies in Washington, D.C. to highlight the importance of California water issues.

WHY ATTEND?

Meet and join fellow water agencies in Washington, D.C. to highlight the importance of California water issues.

ACWA's 2024 D.C. Conference will be an exciting time to gather in the Nation's Capital! With the Presidential election on the horizon and Congress wrestling with many critical issues facing the nation, join your colleagues for three days of networking, learning, and interacting with policy makers.

Whether you're a seasoned advocate or just beginning to learn about ACWA's federal efforts, the 2024 D.C. Conference is accessible for all water professionals. Innovative programming paired with traditional favorites will offer a breadth of topics and a variety of speakers.

TUESDAY

Join Advocacy 101, a new program with experts sharing advice on the finer points of federal advocacy and how to make the most of your time in the Nation's Capital. Finish off your first day at a joint reception with the California Association of Sanitation Agencies (CASA).

WEDNESDAY

Join the networking breakfast and hear keynote addresses from Biden Administration officials. Then, meet back up with colleagues for lunch before heading to the Capitol to hear from the CA Congressional Delegation at the signature Congressional Speech Program.

THURSDAY

Members are encouraged to schedule their own meetings with Congressional Representatives and Administration Officials. For resources and tips on scheduling meetings, please review ACWA's Outreach Handbook.

Capacity is limited and available on a first-come, first-served basis.

Register Online Until Feb. 9, 2024

Save by Registering Early

Registration includes Tuesday breakfast, lunch and Congressional Reception, Wednesday breakfast and lunch, and Thursday breakfast along with conference materials.

Advantage* \$825

Standard \$1,240

REGISTER

Registration & Cancellation Deadline: February 9, 2024

Registration deadline is subject to availability and applicable health, safety and capacity restrictions.

RCEA/RREDC



Redwood Coast Energy Authority
 633 3rd Street, Eureka, CA 95501
 Phone: (707) 269-1700 Toll-Free (800) 931-7232 Fax: (707) 269-1777
 E-mail: info@redwoodenergy.org Web: www.redwoodenergy.org

BOARD OF DIRECTORS REGULAR MEETING AGENDA

NEW MEETING LOCATION

**Wharfinger Building, downstairs Bay Room
 1 Marina Way, Eureka, CA 95501**

**December 21, 2023
 Thursday, 3:30 p.m.**

Any member of the public needing special accommodation to participate in this meeting or access the meeting materials should email LTaketa@redwoodenergy.org or call (707) 269-1700 at least 3 business days before the meeting. Assistive listening devices are available.

Pursuant to Government Code section 54957.5, all writings or documents relating to any item on this agenda which have been provided to a majority of the Board, including those received less than 72 hours prior to the Committee's meeting, will be made available to the public at www.RedwoodEnergy.org.

NOTE: Speakers wishing to distribute materials to the Board at the meeting, please provide 13 copies to the Board Clerk.

THIS IS A HYBRID IN-PERSON AND VIRTUAL MEETING.

The Board of Directors has returned to in-person hybrid meetings. When attending Board meetings, please socially distance as much as possible and be courteous to those who choose to wear a mask.

To participate in the meeting online, go to <https://us02web.zoom.us/j/81972368051>. **To participate by phone**, call (669) 900-6833 or (253) 215-8782. Enter webinar ID: 819 7236 8051.

To make a comment during the public comment periods, raise your hand in the online Zoom webinar, or press star (*) 9 on your phone to raise your hand. You will continue to hear the meeting while you wait. When it is your turn to speak, a staff member will unmute your phone or computer. You will have 3 minutes to speak.

You may submit written public comment by email to PublicComment@redwoodenergy.org. Please identify the agenda item number in the subject line. Comments will be included in the meeting record but not read aloud during the meeting.

While downloading the Zoom application may provide a better meeting experience, Zoom does not need to be installed on your computer to participate. After clicking the webinar link above, click "start from your browser."

OPEN SESSION Call to Order**1. ROLL CALL - REMOTE DIRECTOR PARTICIPATION**

- 1.1. Approve teleconference participation request for this meeting by Director pursuant to Brown Act revisions of AB 2449 due to an emergency circumstance to be briefly described.

2. REPORTS FROM MEMBER ENTITIES**3. ORAL COMMUNICATIONS**

This time is provided for people to address the Board or submit written communications on matters not on the agenda. At the conclusion of all oral communications, the Board may respond to statements. Any request that requires Board action will be set by the Board for a future agenda or referred to staff.

4. CONSENT CALENDAR

All matters on the Consent Calendar are considered to be routine by the Board and are enacted in one motion. There is no separate discussion of any of these items. If discussion is required, that item is removed from the Consent Calendar and considered separately. At the end of the reading of the Consent Calendar, Board members or members of the public can request that an item be removed for separate discussion.

- 4.1 Approve Minutes of November 16, 2023, Board Meeting.
- 4.2 Approve Disbursements Report.
- 4.3 Accept Financial Reports.
- 4.4 Authorize an Increase in the Executive Director's Spending Limit to \$30,000 for Labor and Employment Matter Legal Services for Fiscal Year 2023-2024.
- 4.5 Authorize the Executive Director to Execute Amendment No. 1 to Legal Services Agreement with PefferLegal for RuralREN Regulatory Support and Legal Services Through December 2026 for a Not to Exceed Value of \$100,000 per Year, Subject to Sufficient Budgetary Allocations.
- 4.6 Authorize the Executive Director to Execute the \$20,000 E-Bike Voucher Funding Agreement with the City of Arcata.

5. REMOVED FROM CONSENT CALENDAR ITEMS

Items removed from the Consent Calendar will be heard under this section.

6. OLD BUSINESS – None.**7. NEW BUSINESS**

- 7.1. Presentation on January 2024 PG&E Rate Change (Information only)
- 7.2. Presentation on Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Readiness Blueprint (Information only)

8. STAFF REPORTS

- 8.1 Deputy Executive Director's Report on Upcoming Community Advisory Committee Appointments and Other Topics as Needed

9. FUTURE AGENDA ITEMS

Any request that requires Board action will be set by the Board for a future agenda or referred to staff.

10. CLOSED SESSION

10.1. Conference with Legal Counsel: Anticipated litigation, pursuant to Government Code Section 54956.9(d)(2).

10.2. Public Employee Performance Evaluation, pursuant to Government Code Section 54957(b)(1): Executive Director.

11. RECONVENE TO OPEN SESSION

12. CLOSED SESSION REPORT

13. ADJOURNMENT

NEXT REGULAR MEETING

Thursday, January 25, 2024, 3:30 p.m.

Wharfinger Building downstairs Bay Room, 1 Marina Way, Eureka, CA 95501
Online and phone participation will also be possible via Zoom.



Redwood Region Economic Development Commission
325 2nd Street, Suite 203, Eureka, California 95501
Phone 707.445.9651 Fax 707.445.9652 www.rredc.com

REDWOOD REGION ECONOMIC DEVELOPMENT COMMISSION

Regular meeting of the Board of Directors

December 25, 2023 at 6:30 pm

AGENDA

This meeting has been cancelled due to lack of quorum.
The next regular meeting is January 22, 2024.

The Redwood Region Economic Development Commission will, on request, make agendas available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof. Individuals who need this agenda in an alternative format or who need a disability-related modification or accommodation in order to participate in the meeting should contact the Board Secretary at (707) 445-9651. Notification 48 hours prior to the meeting will enable the Commission to make reasonable arrangements for accommodations.



*Cities Arcata · Blue Lake · Eureka · Ferndale · Fortuna · Rio Dell · Trinidad
Community Services Districts Humboldt · Manila · McKinleyville · Orick · Orleans · Redway · Willow Creek
Humboldt Bay Harbor, Recreation and Conservation District · Humboldt Bay Municipal Water District
County of Humboldt · Hoopa Valley Tribe · Redwoods Community College District*