HUMBOLDT BAY MUNICIPAL WATER DISTRICT

Board of Directors Meeting

June 10, 2021

Cleared Lease Lot at Ruth Lake

Humboldt Bay Municipal Water District
828 7th Street, Eureka

Agenda for the Regular Meeting of the Board of Directors

Meeting Start Time: 9:00 a.m.

DUE TO COVID-19 THE DISTRICT WILL BE HOLDING THE MEETING VIA ZOOM

June 10, 2021

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.

COVID-19 Notice

Consistent with Executive Orders N-25-20 and N-29-20 from the Executive Department of the State of California and the Humboldt County Public Health Officer's November 3, 2020 Shelter-in-Place Order, the Board members will be participating via Zoom. The Board room at 828 7th street will be open to the public and social distancing and wearing of face coverings will be enforced.

Members of the public may also join the meeting online at:

https://us02web.zoom.us/j/89192432697?pwd=eFZMc0tITExmck1sTjVUWGRORHdGUT09

Participate by phone: 1-669-900-9128
Enter meeting ID891 9243 2697
Enter password: 148517

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 comment via email until 5 pm. the day before the Board Meeting by sending comments to the Board Secretary at hbitner@hbmwd.com. Email comments must identify the agenda item in the subject line of the email. Written comments may also be mailed to 828 7th Street, Eureka, CA 95501. Written comments should identify the agenda item number. Comments received prior to the meeting will be read during the meeting. Comments received after the deadline will be included in the record but not read during the meeting. If participating in the meeting, public comment will also be received during the meeting.

Time Set Items:

Item	
8.1d McNamara & Peepe Glendale Property	9:15 am
8.1a Water Resource Planning	10:00 am
12. b ACWA Executive Board candidate	10:30 am
12. c ACWA Executive Board candidate	10:45 am
10.1 Engineering	11:00 am
9.3 Public Hearing - UWMP	1:30 pm
9.1 Closed Session	3:45 pm

The Board will take a scheduled lunch break from 12:00 pm to 1:00 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 given the opportunity to address items that are on the agenda at the time the Board takes up that item. Pursuant to the Brown Act, the Board may not take action on any item that does not appear on the agenda.

5. MINUTES
5.1 Minutes of May 7, 2021 Regular Meeting-discuss and possibly approve*
5.2 Minutes of May 20, 2021 Special Meeting – discuss and possibly approve*

6. CONSENT AGENDA-*These matters are routine in nature and are usually approved by a combined single vote*
6.1 Media articles of local/water interest*

7. CORRESPONDENCE
7.1 FERC letter dated April 30, 2021 re 2019-21 DSSMR – discuss*
7.2 U.S. Capitol Christmas Tree decorations needed – discuss*

8. CONTINUING BUSINESS
8.1 Water Resource Planning-status report on water use options under consideration*****
- a. Local Sales
  - i. Nordic Aquafarms update - discuss*
    1. News articles re EIR – discuss*
    . Planning commission agenda – discuss*
  - ii. Trinidad Rancheria Feasibility Study update - **(Time set 10:00 am)**
- b. Transport – no report
- c. Instream Flow committee meeting report out - discuss

8.2 MMcNamara and Peepe update - discuss*m
- a.C DTSC letter approving surface water sampling - discuss*
- b. SHN report on Surface Water Sampling – discuss*
- c. EPA Toxicity Equivelance Factors - discuss*

8.3 DTSC site investigation workplan for McNord Lumber Mill site - discuss*

8.4 Ruth Lake Emergency Declaration – update
- a. Cal OES soil sample thresholds – discuss*
- b. News articles re Ruth Lake clean-up efforts - discuss*
- c. Cal Fire Forest Health Grant – discuss*

9. NEW BUSINESS

9.1 CLOSED SESSION: THREAT TO PUBLIC SERVICES OR FACILITIES - Gov. Code 54957 (Time Set 3:45 pm)

Consultation with:
John Friedenbach, General Manager HBMWD,
Dale Davidson, HBMWD Superintendent
Nathan Stevens, PE, GHD
Ryan T. Plotz, Mitchell Law Firm, LLP

9.2 Report Out from Closed Session

9.3 Public Hearing: Urban Water Management Plan (UWMP)- conduct public hearing and possible approval of UWMP and Resolution 2021-11 Adopting the District's 2020 UWMP * **(Time Set 1:30 pm)**

a. Resolution 2021-11: Adoption of the District's 2020 Urban Water Management Plan – discuss and possibly approve*

9.4 Joint Board Meeting with Ruth Lake Community Services District date moved to July 9, 2021– discuss and possibly approve*

9.5 Humboldt County drought – discuss

a. News articles re drought*

10. REPORTS FROM STAFF

10.1 Engineering (Time set 11:00 am)

a. 12 kV Switchgear Replacement ($755,832 District Match) – Status Report*
b. Collector 2 Communications Underground – NCRA license – discuss and possibly approve*
c. Collector Mainline Redundancy Hazard Mitigation Grant ($790,570 District Match) – Status Report
d. Reservoirs Structural Retrofit Hazard Mitigation Grant ($914,250 District Match) – Status Report*
e. TRF Generator Hazard Mitigation Grant ($460,431 District Match) – Status Report*
f. Appeal of FEMA Funding Denial for Collector 4 Emergency Restoration Work – Status Report
g. R.W. Matthews Dam & Spillway Seismic Stability Analysis and Design HMGP Advance Assistance Project – Status Report
h. Status report re: other engineering work in progress

10.2 Financial

a. Financial Report– accept May 2021 financial statement & vendor detail report - discuss and possibly accept*
b. FY 2021-22 Budget presentation – discuss*
    i. HSU article re 2020 CPI – discuss*
c. Annual Appropriations Resolution 2021-12 – discuss and possibly ratify*

10.3 Operations

a. Monthly report on projects and operations– discuss*

11. MANAGEMENT

a. ACWA
    i. US EPA revisions to Unregulated Contaminant Monitoring - discuss*
    ii. 2021 ACWA Spring conference report out- discuss
b. CSDA
    i. COVID-19 fiscal impact to local government -discuss*
c. Return to In-Person Board meetings - discuss

12. DIRECTOR REPORTS & DISCUSSION

12.1 General -comments or reports from Directors

12.2 ACWA

a. Nomination of J. Bruce Rupp as Chair of the ACWA Region 1 Board for calendar year 2022– discuss*
b. Pam Tobin, candidate for Vice President of the 2022 ACWA Executive Committee– discuss* (**Time Set 10:30 am**)
c. Cathy Green, candidate for Vice President of the 2022 ACWA Executive Committee– discuss* **(Time Set 10:45 am)**

12.3 ACWA – JPIA

a. Report out on ACWA-JPIA Spring conference - discuss

12.4 Organizations on which HBMWD Serves:

a. RCEA- status report*
b. RREDC-status report*

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 June 4, 2021)

Minutes

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Minutes for Meeting of Board of Directors
May 7, 2021

1. Roll Call

The meeting was called to order at 9:00 am and the Time Set items noted. Roll Call was taken and the meeting was conducted within all Brown Act requirements.

Members Present:
Director Bruce Rupp
Director Michelle Fuller
Director David Lindberg
Director Sheri Woo
Director Neal Latt

Members Absent:
None

Staff:
John Friedenbach, General Manager
Dale Davidsen, Superintendent
Chris Harris, Business Manager
Heather Bitner, Board Secretary
Dee Dee Simpson, Accounting and HR Assistant

Others Present
Jennifer Kalt, Humboldt Baykeeper
Steve McHaney, GHD

2. Flag Salute

The meeting began with a flag salute.
Director Latt joined the meeting at 1:00 pm.

3. Accept Agenda

Staff introduced a request for an Urgency Addition to the Agenda to consider a request by ACWA to join a coalition in opposition to AB 1434, which would lower the indoor water use efficiency standards enacted in 2018. The deadline to participate is May 12, 2021 (within one week) and the request was circulated after the agenda was posted on April 30, 2021.

The Brown Act identifies three situations in which a body is permitted to discuss or take action on a matter at a regular meeting where the matter was not first described on a duly noticed agenda.

- Emergency
- Requires immediate action that cannot wait
- Certain continued items

A legitimate immediate need can be acted upon even though it is not on the posted agenda. The Board must determine that there is an immediate need to take action and the need arose after the agenda was posted. Prior to discussing a matter which was not previously placed on the agenda, the item must be publicly identified so that interested members of the public can monitor or participate in the consideration of the item in question. The Board must agree by consensus to discuss and/or act on the item. A motion is not required for this.

The Board has agreed to consider the Urgency Addition to the Agenda as Item 11bii.

On motion by Director Lindberg seconded by Director Rupp, the Board Accepted the Agenda as modified for the May 7, 2021 Regular Meeting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

4. Public Comment
There was no public comment.

5. Minutes

On motion by Director Fuller seconded by Director Lindberg, the Board Adopted the Minutes as edited for the April 8, 2021 Regular meeting, by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

6. Consent Agenda

On motion by Director Rupp seconded by Director Lindberg the Board Accepted the Consent Agenda for the May 7, 2021 Regular Meeting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

7. Correspondence
7.1 2021 Redistricting notification
Staff reported that the 2020 census will be published and there are requirements to analyze populations within the divisions to equalize the number of constituents per division. The state imposes a due date of May 12, 2022 to complete the analysis, which require a public hearing process. If the data shows less than a 10% change then no action will be required.

There was no public comment.

7.2 Letter to Arcata Fire Department regarding critical assistance training -
Arcata fire department (AFD) was very active in the past for a variety of training for emergencies but with budget and staff changes, AFD pulled back from this joint training activity. The municipal customers requested a joint letter on their behalf be sent requesting AFD reconsider participation. The Chief is open to the concept, but has continued budget constraints and will require a long-term effort. Staff will continue to seek collaboration with AFD for our training requirements.

There was no public comment.

8. Continuing Business

8.1 Water Resource Planning-

a. Local Sales

i. Nordic Aquafarms: They are moving forward on their permitting process. Public comment period is open now under the CEQA public process. The Board did not have any direction to staff for public comment. Jen Kalt brought forward that the District's Habitat Conservation Plan (HCP) did not address Chinook and Steelhead in the plan. Humboldt Baykeeper will review and comment on the HCP when it is opened for public comment. Staff noted that those species habitat were not identified so they could not be included. The purpose of the District amending the HCP is for the District Instream Flow for a change to our water rights, not regarding Nordic. Now that those two species habitats have been identified, they have to reopen the HCP.

The Board inquired about the attempt to eliminate the obstruction in the Mad River which doesn't allow salmonoid to get upriver, preventing spawning higher up in the river. Critical habitat hasn't been studied since 1994. Staff noted there is a natural partial chokepoint upstream, but there are enough tributaries downstream where they can spawn.

There have been inquiries about whether Change of Use permits are possible in order to supply water to locations outside our District boundaries during the drought. The District is not set up for tanker trucks to connect to our infrastructure for water, although some of our wholesale municipalities do have these connections. The cost to truck water is cost prohibitive for most, but the issue will arise again with this drought and should be considered under local water sales. The Board requested contact with Division of Water rights (DWR) regarding the emergency situation and that perhaps they would waive fees, as it will be small communities who may not be able to pay fees. Staff will continue to look into options to address the need.

ii. Trinidad Rancheria Feasibility Study update:
Staff met with Rancheria staff to review a technical memorandum determining the total demand for water. Staff is calculating the appropriate size pipeline to meet demand. A follow up meeting with Cal Trans to discuss needs for right of way for the pipeline is needed. There was no public comment.

b. Local Sales Committee Meeting: Humboldt County Planning department called staff about the ability for the District to supply water during a drought condition for locations outside of our district boundaries. In 2015, the change of use permits cost $7,000, along with other logistics problems, which makes it difficult to navigate the issue. However, the municipal customers do have the ability to supply water to tanker trucks. The Board asked staff to inquire if they might waive fees in preparation of the need as there will be an emergency upcoming. There's a possibility to install a tanker connection at the industrial reservoir, or to make a similar connection to our Collector raw water infrastructure at Essex. Transport – no report

c. Instream Flow
The committee is moving forward on the goals under the HCP. The committee has provided comments to the consultant. A meeting has been scheduled to review the goals for the HCP amendment. Outreach is the next step after it is brought back to the Board.

d. McNamara and Peepe: Director Woo recused herself at 9:15am due to a remote conflict of interest. Director Woo is employed by SHN Engineers and Geologists, which performs work on the McNamara and Peepe site. Director Woo is a SHN minority shareholder, and her interest in the McNamara-Peepe site is remote. Staff has been notified that the QA/QC is being performed on the test results from DTSC for the surface water sampling. Once the results are made public, they will be presented to the Board.

Director Woo rejoined the meeting at 9:22am

Kernan Construction has been fined for violations for releasing contaminants into storm water drainage which runs into the Mad River. Current testing shows either non-detect, or results below the required amounts for those constituents near the District's water intake point downstream.

The Board noted that the violations occurred through the process of self-reporting to the regulatory agency, and that the thousands of violations only works out to a miniscule fine per violation. Jennifer Kalt, of Humboldt Baykeeper pointed out that it is appalling to have a private lawsuit to enforce violations that have been ongoing. She doesn't have an answer as to why the regulatory agency doesn't enforce their own permit parameters. She thanked staff for looking up the data results from that area to assure the public that their drinking water is safe.

i. Mad River Policy committee-no report
ii. Letters of support to DTSC- no report
iii. Local articles- no report

e. Update to Ruth Emergency Declaration
The cleanup process is progressing. The key staff person, Adam Jager, will be updating the Board at the May 20, 2021 meeting. Salvage logging is continuing. CalOES crews have been going to lease lots sites to remove burn debris from structures and take soil samples. The property owners will be able to move forward with the rebuilding process after these tasks are completed. Ruth Lake CSD website has the application and process for rebuilding available. District staff provides an inspection and recommendation, and the application from the lease lot holder is then reviewed by the Eureka office. District authority is retained in the Trinity County Master Lease. There are 45 days to approve or deny the request. A denial can be made if there is an impact to water quality or District operations.

The primary purpose of Ruth lake is to provide drinking water and industrial water to Humboldt County. The recreational uses are secondary. New building requests may present some challenges.

The Board commented that our concerns need to be communicated to RLCSD. The natural inclination will be to improve the dwellings, but hopes that RLCSD will understand the need to protect water quality. Expanding septic use next to the drinking water source is problematic. The Board supports staff in asking people to wait on rebuilding until there's a better understanding of the impacts to drinking water. Doubling the footprint doubles the impact from roof runoff, hardscape, septic use, sediment erosion, etc., all of which have an impact on water quality.

The policy issue is complex as it involves RLCSD policies to improvements, although the District does provide collaboration and input under the Master Lease as it relates to negative impacts to water quality. There have not been updates to the policies as of yet. District staff is able to accommodate the new requests. There were nearly 60 sites that burned, and about 70 that had an outbuilding which burned. A lease lot holder is able to appeal a district decision to the Board.

The Board sees a potential issue between the District and RLCSD to approve structures that don't support our water quality needs. The board requested a letter to RLCSD from the Board Chair to reiterate the District concerns about water supply and quality.

9. New Business

9.1 Joint Board Meeting with Ruth Lake Community Services District

Staff proposes a joint meeting with RLSCD on July 16, 2021. Barring additional COVID restrictions, we will meet outside. There were no public comments.

9.2 New Quagga mussel decontamination process for boats

The District was unsuccessful in a previous grant request for a decontamination station but a new type of decontamination system may be available. At some point it may be cost effective to have something like this at Ruth Lake but it is likely several years out.

9.3 Resolution 2021-08: Quagga/Zebra Mussel Infestation Prevention Grant

The District is applying for $81,000 grant to the Quagga Prevention Plan. Grant purchases will include 2-ton boulders and new barriers to limit unrestricted access to the lake. Bollards and chain link, and other normal inspection supplies for RLCSD are to be included.

In past years, over $20,000 has gone directly to the RLCSD budget to help them carry out Quagga prevention.

On motion by Director Rupp seconded by Director Fuller, the Board Approved Resolution 2021-08: Quagga/Zebra Mussel Infestation Prevention Grant, at the May 7, 2021 Regular Meeting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

9.4 Resolution 2021-09 Cal Fire Healthy Forests Grant Application

The District is partnering with two landowners and the Watershed Research and Training Center (WRTC) to replant lost forest and grow seedlings in the Mad River watershed and Ruth Lake. Through the WRTC we are able to indirectly partner with the USFS. The Board commended staff for finding and bringing this forward.

On motion by Director Rupp seconded by Director Lindberg, the Board Approved Resolution 2021-09: Cal Fire Healthy Forests Grant Application, at the May 7, 2021 Regular Meeting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.
Bio break at 10:20am, and returned to open session at 10:30am.

10. Reports from Staff

10.1 Engineering (Time set 11:00 am)

a. 12kV Switchgear Replacement ($755,832 District Match)
    i. Notice of CalOES Community Power Resiliency grant ($215,000) This is 100% grant funded with no District match. With a potential controller upgrade a request of $292,000 has been submitted to Cal OES. Construction has resumed at the site with a mid-July delivery of the switchgear and a completion date of January 1.
b. Collector Mainline Redundancy Hazard Mitigation Grant ($790,570 District Match)- nothing to report
c. Reservoir Structural Retrofit Hazard Mitigation Grant ($914,250 District Match)- GHD completed the draft drawings 60% with initial District comments. The current opinion of probable cost is a conservative $5 million. There has been a significant spike in costs to building materials, fuels, etc. There was an extension to July 31 as there are some sensitive species to contend with. CalOES approved an extension to Aug 31 to provide reporting time.
d. TRF Generator Hazard Mitigation Grant ($460,431 District Match) – An RFI was sent with minor questions. The update was sent to OES on May 4. There may not be further information until the Fall 2021.
e. Appeal of FEMA Funding Denial for Collector 4 Emergency Restoration Work – There was nothing new to report. GHD will work with OES to see if there can be any movement.
f. R.W. Matthews Dam & Spillway Seismic Stability Hazard Mitigation Grant Program Advance Assistance Grant – District match commitment letter

    The District 25% match letter was increased by $32,000. The due date was prior to the Board meeting and staff submitted the match letter to the grant program. An agenda discrepancy has

caused this item will be carried over to the May 20 agenda for ratification. There was no public comment.

g. Status report re: other engineering work in progress – A tap test indicated some small areas of delamination findings to the spillway. FERC has not yet responded to the request to move forward with repairs. Continued operations analysis is still being prepared regarding the feasibility of continuing the hydro dam operations.

10.2 Financial

a. Financial Report– accept March 2021 financial statement & vendor detail

Ms. Harris introduced the financial report. There is currently $10.2 million in various accounts. Line 11a. was added to reflect the additional $215,000 for the motor board to the 12Kv relocation project for the Community Power Resiliency Program.
As the Board meeting was shifted a week earlier this month, there were payments that have not been received but Municipal board meetings are scheduled after the District meeting so payments will come in. The District received $52,000 as a rate stabilization payment from ACWA/JPIA.
Lab expenses are dependent on Nature, and the District is trending a little higher this year. Training expenses are expected to go up slightly, and are anticipated to increase next year. COVID-19 related expenses are finally getting lighter.

The Board asked about a giardia test and staff confirmed that is a routine test. Additionally, staff verifies the different sales tax amounts with vendors during the process of verifying Purchase Orders.

Director Lindberg reviewed the bills and did not have any questions or comments.

On motion by Director Rupp seconded by Director Lindberg the Board Accepted the March 2021 Financial Statement and Vendor Detail Report in the amount of $354,596.76 by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

b. Draft Proposed FY 2021-22 Operating Budget

Director Latt joined the meeting at the beginning of this item. Staff introduced the proposed operating budget for FY 2021-22. This presentation was to introduce the Service and Supplies, and Salaries and Employee benefits program. The Project Budget will be presented at a Special Meeting on May 20. Final consideration will be July 8, 2021.

A new Purchase Order system was put in place last year, which has trued up the expenditures to the budget categories. District staff researched and switched the phone plan which saved $9,000. A

total requested increase of Operations is $57,400. Dues and Subscriptions is requesting an increase of 17% to correct underbudgeting for both 2021 and 2020 Regulatory agency fees have increased significantly, mainly due to the USFS land usage fee. A net increase of $38,500 is proposed.

The Board asked if overhead costs were reimbursable for grants. Each grant is different, but there are administrative fees allowed as reimbursable. The anticipated increase of $57,400 to Power and Regulatory fees is 3% more than last year.

Salaries and Wages are increasing by $83,340. This will include a 3-month operator training position, and 6-month operator training position, a COLA increase of 2%, and increase to CA minimum wage. There are currently 8 staff members (representing 174 years of experience) who are eligible for retirement. The District desires to be proactive about having replacement training if this comes up.

Staff acknowledged the 5% essential pay that staff is presently benefitting from, and is not subject to any potential COLA increase. The Board asked to exclude ACWA/JPIA rates in the chart and to show additional rate indices and to show numbers that are not rounded up when discussing a COLA. The Board brought up that recruitment and retention are important factors to consider. Gasoline, building and housing costs are astonishing and recruitment is very difficult for our specialty line of work. Total salary and wages proposed is a 3.4% increase.

Employee benefits programs are expected to increase a total of $103,550, or 5.9%, including the requested new positions. There are anticipated increases to payroll taxes and medical insurance premiums. The Family PPO rates are not increasing, although the Family HMO rates will increase. It may be that several employees elect to move to PPO. The Board reminded staff to look into borrowing money to pay the unfunded liability and OPEB costs to save interest costs.

FY budgeting for unfunded liability payment of $245,000 next year to make up for not pulling funds for payments when there were poor market conditions. The PARS trust liability projections did not earn up to potential due to COVID-19 market conditions.

A 4.2% increase to the total operating budget is proposed. An overall increase to a 2.5% is proposed to the muni customers. The Project Budget is to be proposed on May 20. The Board asked for additional information regarding the medical costs, and to provide historical CPI's next to the COLA figures in the chart.

There was no public comment.

10.3 Operations

a. Monthly report on projects and operations
   Staff reviewed the Operations report. There were no outages or shutoffs in April. There has been a significant problem with homeless encampments on District property that staff has been working

with to have them clean the areas and move on. The Board wanted to reaffirm that employee's safety is very important.

A report out from the Region 1 ACWA Board reinforced that Marin, Sonoma and Mendocino counties are in a significant drought, and we are very fortunate to have the water that we do. There was no public comment.

11. Management

a. CSDA- Coalition letter in support of Covid-19 fiscal assistance to special districts
Muni meetings have had mention that smaller districts are experiencing effects from COVID-19 . Fieldbrook was invited to participate in a statewide survey about the effects. They have somewhere around $20,000 in delinquent accounts, which is significant.

On motion by Director Rupp seconded by Director Lindberg the Board Approved joining the CSDA coalition in support of COVID-19 fiscal assistance to special districts by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

b. ACWA

i. ACWA Spring Virtual conference breakout sessions. Director Rupp and Director Fuller are both attending the Spring Conference.

ii. ACWA opposition to AB 1434: Staff read the memo aloud into the record (attached). Staff recommends joining the coalition letter opposing AB 1434, which would make the indoor water usage efficiency standards lower. ACWA opposes the legislation out of concern that scientific basis for lowering the standard has not been established. The Board noted that ACWA rarely opposes legislation but on principle we should join to encourage the legislature to come back to the table to require a measure of proper consumption by the state water board.

On motion by Director Rupp seconded by Director Lindberg the Board Approved joining the CSDA coalition in opposition of AB 1434 by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.

c. Spillway discussion with DSOD
Staff attended a meeting with DSOD regarding the analysis of the data the District submits in the Dam Safety Report (DSR) water flow/dam monitoring. DSOD graphed water flow in the weirs relative to the spillway water flow and concluded that the drains in the spillway floor may be acting as suction devices, bringing water back into the spillway under the spillway drain system. DSOD will be sending a formal letter. The District has not received the letter but will have several months to review the data. FERC said DSOD contacted them and there's a problem with the drain spillways. Staff responded that if DSOD and FERC meet then the District and GEI requests being present. This has the potential to have larger implications, so staff brought it forward prior to the letter coming in.

The spillway floor as a horizontal plane, has drains underneath as a piping system. The drains have angled outlets that daylights from under the spillway. DSOD has concluded that when water goes over these drains, it gets sucked back under and migrates to the under-spillway drains, then shows up in the weirs (piezometers) flow which increases as the spillway discharge water increases. There are differing opinions based on the results.

Staff anticipates this will be a costly engineering investigative and engineering analysis venture. Investigating the under-spillway system is part of the Advance Assistance grant that has been applied for. As designed, the intent was to put them at an angle and channel water to drain rock. Part of the regular inspection process is to clean out the drains, and past FERC concerns has been there may be too much cleaning out of the drain rock, so there is a suction action designed into the drains.

Staff will bring a better presentation shortly, but wanted to notify the Board to let them know as soon as we did. There are metal pipes that go lengthwise down of the spillway, but aren't connected to these drains. The board asked if this was typical of other spillways. Staff said it is similar to other spillway designs. The uniqueness of Mathews dam is the addition of the piezometers to measure water, then release water pressure and collect it in the weir. DSOD says it is unique to have this data and that other spillways don't have this piezometers data. There are mechanical fixes that are possible.

FERC's nexus with the District is the hydro plant, but the instream flow and water rights assume that the hydro plant is active, and DSOD is part of the dam's state of California regulatory oversight. There was no public comment.

12. Director Reports & Discussion

12.1 General comments or reports from Directors

Director Rupp has finished his sexual harassment prevention training. Director Fuller noted there was sampling efforts that found Ulicon in the estuary. People were speculating whether they even use the Mad River but they have been found in the estuary and should not impact District operations. Director Woo noted that the offshore wind program is picking up. It appears Humboldt Bay will be the location of the assembly point for the West Coast and Humboldt Bay Harbor District is working on grant applications with RCEA.

12.2 ACWA

a. ACWA Coalition Clean Fleets workshop comments letter

Staff introduced the CARB requirements for clean fleets, which will impact the district. There is an exception in the rules to allow for small population to extend the compliance date, which the District qualifies. As the District replaces its vehicles, there is concern that there are not enough heavy-duty vehicles to comply and meet operations requirements.

b. ACWA public fleets specialty vehicle coalition comments letter – informational article
c. NOAA pilot project on western sub-seasonal to seasonal precipitation
Director Rupp introduced that Senator Feinstein is being encouraged to support funding a study of the microclimate in Sonoma County, for purposes of determining sub seasonal precipitation composition. The NOAA presenter who came to the District said three days in advance for prediction of the weather conditions is already significant. But any study of conditions of weather in this area benefits us as well. ACWA is supportive of $15 million be added to the federal budget to study this project.

On motion by Director Rupp seconded by Director Lindberg, the Board approved participation in a letter of support for a pilot project by NOAA to improve S2S forecasting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	ABSENT
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

There was no public comment.
The Board adjourned to lunch at 12:02pm.

12.3 ACWA – JPIA
Director Rupp reported out that he presented $34,000 to HCSD from JPIA for the actuarial refund program. Employee Benefit Committee is taking up the issue of retiree benefits, as it relates to increases to the HMO plans. There's a consideration of going to a health advantage plan, which offers many benefits like Silver Sneakers program to retirees.

12.4 Organizations on which HBMWD Serves:

a. RCEA – Director WOO reported out that biomass will continue to be part of the RA portfolio for RCEA. Also, there will be a ribbon cutting for the microgrid at the Arcata airport next month. Staff asked whether DG Fairhaven has long range plans for the plant.
b. RREDC – The speaker was the airport director who provided statistics. Total passengers have increased by 60% in the last two years. Larger carriers will be providing larger planes, as well.

There was no public comment.

Adjournment
The meeting adjourned at 2:35pm.

Attest:

_____ _____

Neal Latt, Vice-President J. Bruce Rupp, Secretary/Treasurer

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Minutes for Special Meeting of Board of Directors
May 20, 2021

1. Roll Call
President Woo called the meeting to order via Zoom at 9:00 am and noted the Time Set items. Director Rupp conducted the roll call. The meeting was conducted within all Brown Act requirements.

Members Present:
Director Neal Latt
Director Bruce Rupp
Director Michelle Fuller
Director David Lindberg
Director Sheri Woo

Members Absent:
Director Sheri Woo

Staff:
John Friedenbach, General Manager
Dale Davidsen, Superintendent
Chris Harris, Business Manager
Heather Bitner, Board Secretary
Dee Dee Simpson, Accounting and HR Assistant
Adam Jaeger, Rut Area ire Reco ery

Others Present
None

2. Flag Salute
President Woo led the flag salute.

3. Accept Agenda

On motion by Director Rupp seconded by Director Latt, the Board Accepted the Agenda with Revisions for the May 20, 2021 Regular Meeting by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	AYE
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	ABSENT

There was no public comment.

4. Public Comment
There was no public comment.

5. Continuing Business (time set for 9:05 am)
5.1 Disaster Declaration at Ruth Lake update

Mr. Adam Jager, our Emergency Mad River Watershed Restoration Disaster Supervisor, presented an update to our board. This included the status of the cleanup of lease lots at Ruth Lake. 26 lots have been cleaned up since March 1, 2021 after the August Complex wildfires. There are 46 remaining to have burn debris removed by CalOES. Each site takes two to three days to have the hazardous debris removed. Once the debris is removed, soil testing is conducted. The tests are processed in Chico. Boat leases have proved challenging due to the need to cross the 450 feet of USFS land in order to clean up. The contractors will have to

decommission the USFS access road after burn debris cleanup work has been completed. One property that is too steep to utilize mechanical equipment and will have to be cleared by hand.
There is a pending CalOES right of entry form, which was required to clear a burned structure that was built on District property by mistake. A forced abatement request is being made of Trinity County for a property that will not sign a right of entry form. Additionally, an illegal cannabis grow operation was built on District property, with the owner not being able to be reached. The District is working with Trinity County OES to address the issues caused by this property owner. CalOES is hesitant to clear either of these properties without law enforcement. A lease lot boundary survey needs to occur to ensure the buildings are rebuilt on the appropriate parcel and not District property.
The Board asked what is being tested during the soil testing? The response is metal, or other contaminant that can be detected which may get into the water supply is being tested. CalOES scrapes three to six inches of soil on the burned structure area of the site. District staff intends to use the USDA grant to install erosion control measures after the salvage logging is complete.

5.2 R.W. Matthews Dam Spillway Retrofit Hazard Mitigation Advance Assistance Grant Program sub application funding match letter

The match commitment is in the amount of $384,488, and will be funded with advance charges to municipal customer water rates. The Board asked how costs will be held down. Staff noted the District has a comprehensive 50-year CIP plan. The cost for the capital improvement plan projects was around $50M, so other than municipal water rates, the two other revenue components are grants and long-term financing. The assumption for grant funding was that 15-20% of the revenue needs to be paid for through grants. There is not an incremental increase to muni customers, but rather a continued use of the advance charge funds as other projects mature and are paid off. This current project cost is driven by DSOD and FERC. The intent is to finance the projects and Capital Improvement Plan (CIP) as forecast in the CIP financing analysis which has been discussed with the municipal customers. Staying within those projections is a priority for staff. The projected increase to the muni customers is 2.5% this fiscal year.

There was no public comment.

On motion by Director Latt seconded by Director Rupp, the Board ratified the R.W. Matthews Dam Spillway Retrofit Hazard Mitigation Advance Assistance Grant Program sub application funding match letter by the following Roll Call Vote:

Director Michelle Fuller	AYE
Director Neal Latt	AYE
Director Lindberg	AYE
Director Bruce Rupp	AYE
Director Sheri Woo	AYE

6. FY 2021/22Project Budget

Superintendent, Dale Davidson introduced the proposed Project Budget (attached to the Minutes). Input from supervisors and staff create the projects for the year. CIP and MRAR projects are layered into the budget. Projects under $1,000 are considered maintenance. The color key coding for the spreadsheet is as follows: Items in blue font are required annually. Red items are regulatory. Green items are generated from

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Minutes for Special Meeting of Board of Directors
May 20, 2021

the main office. Purple is from Essex. The tan colored font is CIP driven items. Columns to the far left are red if it's driven by Essex. Red is a new project.

The Board adjourned for a ten-minute bio break at 10:26 am and returned at 10:35 am.

Board discussion centered around the proposal for a utility boat purchase for maintenance and monitoring at Ruth Lake. Regular inspections may help with compliance of District lease lot requirements, and storage for the watercraft would be at District Headquarters. Staff will bring back a policy for consideration for RLCSD to rent the utility boat for official purposes.

Additional FERC and DSOD requirements have created need to seek grants to fund the requested studies. The critical nature of our dam for drinking water and electricity generation should help the District potentially qualify for funding at the state and federal levels.

Research and maintenance of the industrial water system is new this year as it has been since 2009 that the industrial water lines were used routinely. A break room will be added to the TRF so that staff has somewhere to go during breaks and meals and will serve as a temporary EOC if needed.

The Board suggested resisting the NMFS requirement to install a permanent river berm as the engineering is done at a fixed point in time, and the river's morphology will change. Station 6 needs to be kept viable for the industrial water customers, but an impermanent berm may be a better solution.

The proposed project budget total is $15,709,588and will be voted on at the Regular meeting on July 8, 2021.

There was no public comment.

Adjournment
The meeting adjourned at 11:41 am.
Minutes prepared by:

_____
Heather Bitner, District Board Secretary

Attest:

_____ _____
Sheri Woo, President J. Bruce Rupp, Secretary/Treasurer

Consent

Toxins detected in Mad River ahead of Memorial Day weekend

The Blue Lake Rancheria Tribe's environmental scientist Jacob Pounds samples Mad River algae mats for analysis. (Photo contributed by Blue Lake Rancheria)

By **THE TIMES-STANDARD** |
May 27, 2021 at 1:39 p.m.

From a Blue Lake Rancheria release:

Low levels of toxins have been detected in algae mat samples from the Mad River, collected by the Blue Lake Rancheria Tribe's Environmental Department at two locations where potential algae blooms had been observed. The presence of these toxins, even at low levels, triggers a 'CAUTION' posting by Humboldt County Department of Health and Human Services for these locations in preparation for the Memorial Day holiday weekend.
A caution level posting means that toxins are present, but currently in low concentrations. Users of the Mad River are advised to avoid all visible algal blooms and scum, especially the mats at the margin of the river. It is advised to keep pets out of the water at these sites.

To help keep the community safe ahead of Memorial Day weekend, the Blue Lake Rancheria Tribe's Environmental Department has partnered with the California Regional Water Quality Control Board to sample potential harmful algae blooms on the lower Mad River at popular recreational spots for fishing and swimming. Due to low and warm water conditions this year caused by lack of rainfall and warmer temperatures, algal blooms are appearing earlier in the year.

Samples for cyanobacteria were taken in two locations:

1) Mad River downstream of Lindsay Creek near HBMWD's Pump Station #4 park

2) Mad River downstream of City of Blue Lake sewer ponds

The Tribe is partnering with the North Coast Regional Water Quality Control Board and U.S. Environmental Protection Agency to sample Mad River for harmful algae blooms and associated toxins ahead of three holiday weekends: Memorial Day, July 4, and Labor Day.
The Blue Lake Rancheria Tribe co-manages the Mad River and will share further test results with the public as they are received.

For more information about harmful algae blooms and these posting levels, please visit: https://www.mywaterquality.ca.gov/habs/index.html

Arcata Bottom mega-grow foes file appeal to BOS

Featured News 3 hours ago

FOOTPRINT To convey the grow's scale, opponents have superimposed an 8-acre outline over four city blocks of downtown Arcata, including the Plaza. Team 27th graphic

Kevin L. Hoover
Mad River Union

ARCATA – In the 2000s, Arcata residents beseeched their political leaders to save them from industrial cannabis grow houses metastasizing throughout their neighborhoods.

Now, with cannabis legal and industry striving to meet demand with supply, some Arcata residents are again appealing to the powers that be to halt creation of a large-scale industrial cannabis grow on the Arcata Bottom.

They see the Arcata Land Company project – approved on April 22 by the county Planning Commission – as bringing a whole new set of problems to their neighborhoods, from traffic to noise to chemical contamination, groundwater, odor and more.

While planning staff and commissioners found that the project checked all the boxes for a site zoned Heavy Industrial with a Qualified Combining Zone – one located much farther away from nearby residences than legally required – opponents believe the project was approved based on inaccurate and inadequate environmental documentation, and that county planning staff failed to properly apply the

California Environmental Quality Act (CEQA). The grow foes want an Environmental Impact Report, rather than the less-thorough Mitigated Negative Declaration (MND).

An appeal was filed May 4 by 27th Street resident Jim Cotton on behalf of the group known as Team 27th, which helped raise the $1,638 fee. A hearing before the Board of Supervisors is at least a month away.

Cotton said the project's application and the attached MND were deeply flawed, containing inaccurate and misleading information. "They just make statements without any evidence," he said. "It's crazy."

For example, he said, the conclusion that the well which will supply the project with water isn't connected to surface water was supplied not by a qualified hydrologist, but by a well drilling company.

That and other points are made in the **letter of appeal**.

"The Planning Commission made decisions without accurate information on water and energy,"Cotton said. "It's difficult to make any decisions without correct information."

He said members of the Team 27th group have met with Third District Supervisor Mike Wilson, who helped explain the appeal process. Sunday, the group's strategy committee met to refine its approach to outreach. Their operating philosophy, Cotton said, is to be "bold and courteous."

Lane DeVries of Arcata Land Company has indicated disinterest in press inquiries. "If there is news, I will call you," he said via email on April 6, ignoring a subsequent message.

At its April 21 meeting, the Arcata City Council wordsmithed a draft letter to the county Planco outlining the city's concerns about the proposed grow facility.

The draft lacked any language calling for creation of a full EIR for the project, something councilmembers said had been requested by citizens in correspondence to the council.

"Just more explicitly saying that an EIR would speak to these concerns that are being raised and the review process," recommended Mayor Sofia Pereira.

"I totally agree with that because that really has been like a main point of what a lot of our constituents have been asking for is that a full EIR should be done," said Councilmember Sarah Schaefer. "So I think that we should get that message across."

Other councilmembers agreed, and voted to form a subcommittee of Pereira and Vice Mayor Brett Watson to finalize the council-recommended language.

The letter was presented to the county Planco at its meeting the next night, April 22, by Councilmember Stacy Atkins-Salazar.

But after its publication in the *Union*, Team 27th members still considered the language suggesting an EIR be conducted as too tentative and conditional, calling the final product a "discrepancy." Monday, a member said the group may ask that the council further strengthen the EIR request.

Senate Passes Sen. Dodd's water access and equity bill

LAKE COUNTY NEWS, EDITOR

02 JUNE 2021

"Rising water rates coupled with pandemic job losses threaten to cut off many California families from an essential service — water," Sen. Dodd said Tuesday. "No one should be denied access, regardless of their income level or economic status. Today's vote is a step toward ensuring low-income customers get the help they need to keep the tap open. I thank my Senate colleagues for supporting this measure."

Sen. Dodd's legislation comes as the State Water Resources Control Board heard results of a survey that found water debt in California climbed to about $1 billion.

The survey estimated 12% of California households are behind on their water bills with an average debt of $500 per household. Many of those people are on the brink of service disconnection.

Senate Bill 222 would prevent shut-offs by establishing a water assistance fund for low-income rate payers experiencing economic hardship.

It would build on Sen. Dodd's earlier legislation. His Low-Income Water Rate Assistance Act, or Assembly Bill 401, commissioned a study for how to address affordability. It resulted in recommendations including this new fund.

He also wrote The Water Shutoff Protection Act, or SB 998, which provided significant safeguards against water disconnections.

SB 222 was approved by the full Senate by a 31 to 5 bipartisan vote. It is backed by a coalition of water advocates including the Community Water Center, Clean Water Action and the Leadership Counsel for Justice and Accountability.

"Millions of Californians are drowning in water debt," said Susana De Anda, executive director and co-founder of Community Water Center. "SB 222 would be a lifeline for low-income families who are struggling to afford their water bills. Water affordability has been a long-standing issue for our communities long before COVID-19, and will persist long after the pandemic, unless we establish a statewide water affordability program for all Californians. We're proud to work alongside Sen. Dodd and our community partners on moving this critical legislation forward and advancing the human right to water."

"Today's vote was a big step towards achieving affordability for all California families," said Jennifer Clary, California director for Clean Water Action. "We appreciate Sen. Dodd's long-term and consistent leadership on this issue, and look forward to working with him to pass this bill this year."

Sen. Bill Dodd represents the Third Senate District, which includes all or portions of Napa, Solano, Yolo, Sonoma, Contra Costa and Sacramento counties.

Lost Coast Outpost:

Andrew Goff / Tuesday, May 25

Biden Administration, Gov. Newsom Eye Humboldt For Future Offshore Wind Farm

A wind farm off the coast of the UK | Photo: Nicholas Doherty

In another move that could signal big things to come for Humboldt, both the Biden administration and Governor Gavin Newsom announced plans Tuesday to open up sections of California's coastline for future offshore wind development.

Humboldt is one of two areas, along with Morro Bay, being considered for wind turbines that officials say could produce up to 4.6 gigawatts of energy, with hopes that the Humboldt project would produce 1.6 gigawatts of that total.

"This historic announcement, which could provide clean power for up to 1.6 million homes over the next decade, represents the innovative approach we need for a clean energy economy that protects the coasts, fisheries, marine life and Tribal and cultural resources we value so much as Californians," Gov. Newsom said.

Secretary of the Interior Deb Haaland, National Climate Advisor Gina McCarthy, Under Secretary of Defense for Policy Dr. Colin Kahl, and California Governor Gavin Newsom today announced an agreement to advance areas for offshore wind off the northern and central coasts of California. This significant milestone is part of the Biden-Harris administration's goal to create thousands of jobs through the deployment of 30 gigawatts (GW) of offshore wind by 2030.

These initial areas for offshore wind development could bring up to 4.6 GW of clean energy to the grid, enough to power 1.6 million homes.

The Department of the Interior, in cooperation with the Department of Defense and the State of California, has identified an area ("the Morro Bay 399 Area") that will support 3 gigawatts of offshore wind on roughly 399 square miles off California's central coast region, northwest of Morro Bay. The Department of the Interior is also advancing the Humboldt Call Area as a potential Wind Energy Area (WEA), located off northern California. These identified areas will enable the build out of a significant new domestic clean energy resource over the next decade or more.

“I believe that a clean energy future is within our grasp in the United States, but it will take all of us and the best-available science to make it happen. Today’s announcement reflects months of active engagement and dedication between partners who are committed to advancing a clean energy future,” said Secretary of the Interior Deb Haaland. “The offshore wind industry has the potential to create tens of thousands of good-paying union jobs across the nation, while combating the negative effects of climate change. Interior is proud to be part of an all-of-government approach toward the Biden-Harris administration’s ambitious renewable energy goals.”

Today’s announcement comes after years of collaboration between the Departments of the Interior and Defense to find areas offshore the central coast of California that are compatible with the Department of Defense’s training and testing operations. The Bureau of Ocean Energy Management (BOEM) issued a Call for Information and Nominations for offshore wind on October 19, 2018, for three areas off the central and northern coasts, including Humboldt and Morro Bay.

The Department of Defense engages in significant testing, training and operations off the coast of California that are essential to national security. The Department of the Interior acknowledges the critical nature of current and future military testing, training and operations and acknowledges that ensuring the operational integrity thereof is a national security imperative. Interior’s Bureau of Ocean Energy Management will work with the Department of Defense to ensure long-term protection of military testing, training and operations, while pursuing new domestic clean energy resources.

“Tacking the climate crisis is a national security imperative and the Defense Department is proud to have played a role in this important effort,” said Dr. Colin Kahl, Under Secretary of Defense for Policy. “The Defense Department is committed to working across the U.S. government to find solutions that support renewable energy in a manner compatible with essential military operations. Throughout this effort, the Defense Department has worked tirelessly with the White House, the Department of the Interior, and the State of California to find solutions that enable offshore wind development while ensuring long-term protection for testing, training, and operations critical to our military readiness. The Defense Department applauds this step and looks forward to continued coordination to address the climate crisis.”

In addition to contributing to the goals of the Biden-Harris administration, the development of offshore wind can help California reach its goal of carbon free energy by 2045, create good-paying, union jobs, and foster investments in coastal communities. Offshore wind resources are typically stronger and more consistent than land-based wind and is especially strong in the evening hours when solar production drops off, ensuring that it can make an important contribution to California’s electric grid.

“Developing offshore wind to produce clean, renewable energy could be a game changer to achieving California’s clean energy goals and addressing climate change – all while bolstering the economy and creating new jobs,” Governor Gavin Newsom said. “This historic announcement, which could provide clean power for up to 1.6 million homes over the next decade, represents the innovative approach we need for a clean

energy economy that protects the coasts, fisheries, marine life, and Tribal and cultural resources we value so much as Californians."

BOEM, in partnership with California, will hold an Intergovernmental Renewable Energy Task Force meeting on June 24 to discuss the identified areas off the north and central coasts as potential WEAs.

Following the task force meeting, the WEAs can be finalized and will undergo environmental analysis; BOEM will also undertake government-to-government tribal consultation. The processes for the northern and central coasts will then be merged in a Proposed Sale Notice (PSN) for one lease sale auction, targeted for mid-2022.

CALTROUT NEWS

May 18, 2021

by Andrew Braugh
Shasta-Klamath Regional Director

Field Note: The Importance of Partnerships

The Shasta-Klamath Region organizes work around protecting California source water and volcanic aquifers, working with family farms to improve water management, and protecting legacy fly-fishing waters like the McCloud River, Hat Creek, and Fall River. In 2021, we are heavily invested in conservation projects in the Shasta and Scott watersheds. These key Klamath tributaries will be critical for recovering salmon populations in the Mid-Klamath Basin after dam removal.

Regionally, CalTrout partners with state-federal agencies, conservation NGOs like The Nature Conservancy and Scott River Watershed Council, and key tribes like the Pit River Tribe, Karuk, and Yurok. CalTrout also builds long-term relationships with private landowners like the Hart and Cardoza families, where we partner to find on-farm water solutions that work for both fish and agriculture. More than 90 percent of all surface and groundwater water diversions in Siskiyou County go to private agriculture.

Consequently, if we want to restore streamflows in the Shasta-Scott watersheds, we need access to private lands and incentives for family farms to conserve water for

rivers and fish. We've found that it can take decades to establish trusting relationships with private property owners, which is why CalTrout's staying-power as an organization and 50th anniversary is so crucial to our mission.

CalTrout is always searching for meaningful incentives to engage our public-private partners. Nothing gets done unless our projects benefit all parties. Whether it's restoring downstream flows for our tribal partners in the lower Klamath, improving irrigation infrastructure for smaller family farms, or helping state agencies carry out long-term conservation priorities, we work really hard to find common ground, shared vision, and mutually beneficial outcomes.

Competing interests for water continue to grow exponentially in California: we think long and hard about how to allocate limited water resources to meet a wide variety of beneficial uses. If we forget to take all user groups into consideration in our projects, then long-term planning based on science and engineering goes out the window and it becomes a tragedy of the commons scenario or a zero-sum game, and that usually benefits one or two parties at the expense of a larger solution.

CalTrout values partnerships that embrace science, technology, conflict resolution, and long-term thinking. We often talk about sitting down at the kitchen table with private landowners and finding engineering solutions to water management problems. Solutions almost always exist for using water more efficiently, but if relationships become toxic and threatening, nobody can think straight, becoming entrenched in defensive positions. Once the finger-pointing and threats subside, we can get to work on actual solutions. The Hart Ranch and Cardoza Ranch flow projects in the Shasta Valley demonstrate what's possible when we think clearly, using science and technology and common sense to get things done.

"We invest in our own ability to problem solve, effect change, bring people to the table, and carry out projects with measurable impact in 3-5 years" – Andrew Braugh

We always have a choice to make about how we motivate people to engage in our mission. Usually, it boils down to heavy-handed regulation versus voluntary, incentive-based strategies. Clearly, bad actors exist that have no interest in reasonable protections for the environment. But we find that the majority of water users in agriculture in Siskiyou County just want to protect their interests, their family legacy, and their cultural heritage associated with ranching, farming, and community. They need technical & legal assistance, science-based solutions, and dialogue to understand the dire issues facing salmonids in California.

Should the government do a better job of enforcing existing environmental laws and holding bad actors accountable for egregious and wasteful water use? Yes, absolutely. But as a conservation group, we could also spend all of our time, energy, financial resources asking political entities to forcefully regulate and never see adequate results. Alternatively, we invest in our own ability to problem solve, effect change, bring people to the table, and carry out projects with measurable impact in 3-5 years. The literal ranch gates are starting to open for us on key private properties that control significant water rights and land-use patterns in the Shasta-Scott. A new world of conservation possibilities emerges when people start working together.

Analysis: California leads nation in tree loss, but worse may lie ahead

Kate Cimini
Salinas Californian
May 17, 2021

A new analysis shows that California leads the nation in loss of tree cover in 2020 thanks to wildfires, drought, and disease.

But that's not all.

According to Global Forest Watch data, California lost the most tree canopy of any state in the U.S. — not just over the last year, but over the last five and 10 years, as well. Ancient redwoods, sequoias, and Joshua trees were lost in wildfires, drought and disease.

LawnStarter, Austin-based lawn care and landscaping organization, collected and analyzed data from the latest year of annual loss rate and compared those numbers to data from 2019, 2016 and 2011, managing editor Jason Medina said. LawnStarter utilized Global Forest Watch data, which looks at all tree canopy across the U.S.

"It gives us a very well-rounded look at how the states have managed their forests, regrown any or lost trees," Medina said.

What they found, he said, was that California led the nation in deforestation, due, in large part, to its massive 2020 wildfire season. The state saw more than four million acres burned, about 40% of the acreage lost to wildfire in the entire country in 2020.

The loss of trees can lead directly to a loss of life, with dead and dying trees easy fuel for wildfires.

The state lost its trees primarily along the eastern and western edges of the state, particularly in northern California. Central California lost tree canopy in national and state parks and forests, where wildfires chewed through ancient Santa Cruz and Big Sur redwood forests.

Joshua trees also suffered. Last summer, portions of the Mojave Desert reached a record-breaking 130 degrees, and enormous blazes like the Dome Fire charred more than 40,000 acres of Joshua tree habitat.

The upcoming wildfire season again threatens some of California's most venerable trees, Medina said.

"I think it’s really important to realize that three of the worst wildfire seasons in the U.S. in terms of acreage lost happened in the last six years," Medina said. "Three of those happened in California. The 2020 season was the worst season in California and accounted for 40 percent of the acreage lost in the U.S. This year is shaping to be a worse wildfire season and California is going to suffer again. More lives will be lost, more trees will be lost."

Between 2010 and 2019, approximately 147 million California trees died, according to the University of California's journal California Agriculture. More than that have likely died since, given that live trees can also perish in wildfires.

Coniferous trees that suffer from drought-like California is experiencing right now often become more vulnerable to bark beetles, which infest and kill trees over the course of a handful of years.

Globally, climate change-wrought drought spurred on tree loss in 2020, which saw the total of trees lost shoot up 12% in one year, World Resources Institute data shows.

Approximately 180,000 acres went up in flames in the River, Dolan and Carmel fires in 2020, and this upcoming season maybe even more damaging to Monterey County, said Dorothy Priolo, Monterey County Regional Fire District Deputy Marshal and Public Information Officer.

"From the outside, you would think that having less fuel to burn would be a positive outcome of a fire, but the secondary consequences of the loss of those trees mean that we're more vulnerable to other types of emergencies, such as the mudslides and earth movement around homes," Priolo said. "So the loss of vegetation, in general, can destabilize the hillsides until the new trees or recovered vegetation can reestablish in those burnt areas."

While the loss of tree canopy is not yet impacting air quality in Monterey County, Air Pollution Control Officer for the Monterey County Air Resources District Richard Stedman noted the 2021 wildfire season to make a significant dent in air quality statewide.

"Every year fire managers say this is going to be the worst year on record and they're saying that this year, too, because of the drought," Stedman said. "We can look forward to having degraded air quality as a result of forest fires, not only ones in our region, but throughout the state."

This story is part of The California Divide, a CalMatters project. Kate Cimini is a journalist for The Californian

University of New Mexico

Study: Wildfires threaten river networks in the western U.S.

By Kim Delker May 19, 2021
A new study conducted by researchers from The University of New Mexico has found that wildfires — which have been increasing in frequency, severity and extent around the globe — are one of the largest drivers of aquatic impairment in the western United States, threatening our water supply.

The research, "Wildfires increasingly impact western U.S. fluvial networks," was published recently in Nature Communications. Authors include former UNM graduate students Grady Ball (now at the U.S. Geological Service) and Justin Reale (now at U.S. Army Corps of Engineers); former postdoctoral researcher Peter Regier (now at Pacific Northwest National Laboratory); associate professor Ricardo González-Pinzón (Department of Civil, Construction and Environmental Engineering) and research assistant professor David Van Horn (Department of Biology).

UNM is one of only a dozen Hispanic-Serving Institutions (HSIs) in the U.S. that are also classified by the Carnegie Commission on Higher Education as a R1: Doctoral Universities with very high research activity.

The study found that about 6 percent of the length of all the streams and rivers in the western U.S. were directly affected by wildfire disturbances (defined by being located in burned areas) between 1984 and 2014, and that every year there are about 342 new kilometers of them directly affected. When the researchers accounted for the longitudinal propagation of water quality disturbances within and across watersheds, it was estimated that wildfires affect about 11 percent of the total stream and river length.

“More than 10 percent of the rivers in the western U.S. have been impacted by wildfires,” González-Pinzón said. “That’s a lot and puts wildfires as one of the top causes of water impairment in the country. It’s a big deal.”

The authors said that there have been few studies on the impact of wildfires on fluvial (river) networks, so this study is significant because it was the first large-scale analysis to utilize remote sensing of burn perimeter and severity, in-situ water quality monitoring, and longitudinal modeling to determine estimates of stream and river length impacted by wildfires at a continental scale.

“It is distressing to realize how little we know about the impacts of wildfires to rivers,” González-Pinzón said. “Especially because this is relevant to the daily life of those living in the western part of the country and particularly in New Mexico, a state that is currently and commonly experiencing up to 100 percent severe droughts.”

Although the direct impact of wildfires in places such as California has been widely reported, particularly in terms of lives and structures lost (the 2018 California wildfire season claimed 100 lives, damaged 24,000 structures and resulted in $2 billion in insurance claims, the study reports), the direct and extended impacts of wildfires have not been thoroughly quantified.

The study alerts that there is growing evidence that wildfires trigger cascading impacts in river networks. Although wildfires are not specifically mentioned on the U.S. Environmental Protection Agency’s Clean Water Assessment, wildfire disturbances contribute to at least 10 of the top 20 most critical disturbances listed in the assessment, such as elevated sediments, nutrient enrichment, organic enrichment and oxygen depletion, elevated temperature, elevated metal concentrations, habitat alterations, elevated turbidity, flow alterations, elevated salinity and/or total dissolved solids, and changes to pH and conductivity. Since forested watersheds supply drinking water for around two-thirds of those living in the western U.S., the impact is massive, in terms of both economics and water security.

Study recommendations…

The study recommends a few action items that can be done to mitigate the effects:

- Invest funding in wildfire preparation and readiness. They advise that wildfire impacts to streams and rivers need to be prioritized for local, state, federal, and

international funding and be included as a component of wildfire preparedness plans. Since wildfires behave unpredictably and evolve quickly, rapid response teams need to be established and funded to appropriately deal with watershed issues after fires.

- Increase focus on capturing longitudinal behavior. More resources should be devoted to the issue of downstream propagation of wild re impacts. Additional research is needed, especially for what the team calls 'dynamic' monitoring approaches that focus on longitudinal data collection that supplement traditional stationary ecological monitoring strategies.
- Incorporate high-fre uency data in environmental monitoring. Since wild re-related water quality disturbances occur rapidly and over a short period, high-resolution and real-time data are essential. The team advises using high-tech tools for aquatic monitoring, sensors, and machine learning among the methods that could collect and interpret high-frequency data in near real-time.

The authors point out that wildfires impact water flow and quality since they originate on hillslopes and cause decreased infiltration capacity and groundwater recharge, a severely reduced capacity for vegetation to grow on impacted land, and a higher frequency of landslides and avalanches. Also, dangerous substances including metals in levels that exceed the World Health Organization's safe drinking water standards are found in surface water long after wildfires are extinguished.

Van Horn said one of the motivations for this study was witnessing the impacts of the 2011 Las Conchas wildfire, the second-largest wildfire in New Mexico's history, resulting in rapid and massive flooding in the burned area and a measurable decrease in the water quality of the Rio Grande near the burned site of hundreds of kilometers downstream.

"We were fortunate in a sense to have the fire in our highly instrumented back yard, where we could study its impacts as it was happening," he said.

There was a dramatic decrease in oxygen in the water, as well as the transportation of large quantities of ash and sediment that forced a two-month shutdown of the City of Albuquerque's only surface water intake, which provides about 70 percent of the drinking water to the area.

"Wildfires are impacting fluvial networks in time and spatial scales that we don't fully understand," Van Horn said. "Thus, we need to investigate how long and how far they remain an issue in watersheds."

"What we found was concerning, and there is a huge need for more research to be done," González-Pinzón said.

In the near future, their team will focus on creating rapid response teams that can conduct research safely, on-demand, soon after wildfires are contained. That research will focus on

answering how far downstream can wildfire disturbances propagate in fluvial networks and what are the main controlling factors. Due to climate change and current forest management practices that have allowed fuels to build up instead of naturally burning in smaller fires, wildfires are only predicted to become worse in the future.

“We can’t really engineer an easy solution to this because it occurs at the scale of continents, but we definitely need to improve how we can increase the resilience of aquatic ecosystems and alert people about the impacts of water quality degradation driven by wildfires to their day-to-day lives; that means that we need to acknowledge that wildfires will continue to happen and that we need to learn how to deal with them,” González-Pinzón said.

Funding for this study was provided by the National Science Foundation and the U.S. Army Corps of Engineers’ Upper Rio Grande Water Operations Model.

Does Cold Wildfire Smoke Contribute to Water Repellent Soils in Burned Areas?

May 25, 2021
By Kelsey Fitzgerald

A new DRI pilot study finds severe water repellency in sand samples after treatment with both hot and cold smoke.

After a wildfire, soils in burned areas often become water repellent, leading to increased erosion and flooding after rainfall events – a phenomenon that many scientists have attributed to smoke and heat-induced changes in soil chemistry. But this post-fire water repellency may also be caused by wildfire smoke in the absence of heat, according to a **new paper** from the Desert Research Institute (DRI) in Nevada.
In this pilot study (exploratory research that takes place before a larger-scale study), an interdisciplinary team of scientists led by DRI Associate Research Professor of Atmospheric Science Vera Samburova, Ph.D., exposed samples of clean sand to smoke from burning Jeffrey pine needles and branches in DRI's **combustion chamber**, then analyzed the time it took for water droplets placed on the sand surface to be absorbed – a measure of water repellency.

A new pilot study by an interdisciplinary team from DRI exposed samples of clean sand to smoke from burning Jeffrey pine needles and branches, then analyzed the time it took for water droplets placed on the sand surface to be absorbed — a measure of water repellency. After exposure to smoke, water droplets sometimes remained on the sand surface for more than 50 minutes without soaking in.
Credit: Vera Samburova/DRI.

The full text of the paper, Effect of Biomass-Burning Emissions on Soil Water Repellency: A Pilot Laboratory Study, is available from Fire: https://www.mdpi.com/2571-6255/4/2/24

The pilot study investigated the effects of smoke and heat on water repellency of the sand and was the first study to also incorporate an analysis of cold smoke. In the experiments, sand was used in place of soil because it could be cleaned thoroughly and analyzed accurately, and Jeffrey pine for a fuel source because it represents a common wildland fire fuel in the Western U.S.

Before exposure to Jeffrey pine smoke, water droplets placed on the surface of the sand samples were quickly absorbed. But after exposure to smoke, the sand samples showed severe-to-extreme water repellency, in some cases retaining water droplets on the sand surface for more than 50 minutes without soaking in. It made little difference whether or not samples had been exposed to heat and smoke, or just cold smoke. "The classic explanation for fire-induced water repellency is that it is caused as smoke diffuses under rather hot conditions and settles down into the soils, but our work shows that the smoke does not have to be hot to turn the sand hydrophobic — simply the presence of the chemical substances in the smoke is enough," Samburova said. "This is something we really need to look deeper into because soil water repellency leads to increases in flooding, erosion, and surface runoff."

left: *Jeffrey pine needles and sticks were used as a fuel source in the new DRI study because Jeffrey pine represents a common wildland fire fuel in the Western U.S. Credit: Vera Samburova/DRI.*

This study built on previously published work by former DRI postdoctoral researcher Rose Shillito, Ph.D., (currently with the U.S. Army Corps of Engineers), Markus Berli, Ph.D., of DRI, and Teamrat Ghezzehei, Ph.D., of University of California, Merced, in which the researchers developed an analytical model for relating soil water repellency to infiltration of water.

"Our earlier paper focused on how fire changes the properties of soils, from a hydrology perspective," Berli explained. "In our current study, we were interested in learning more about the chemistry behind the process of how soils come to be hydrophobic. We're bringing together geochemistry and organic geochemistry with soil physics and hydrology to understand the impact of fire-induced water repellency on hydrology."

The project team is now working on a larger proposal to further investigate questions touched on by this study about the roles of heat and smoke in fire-induced water repellency. Among other things, they would like to know how long soil water repellency lasts after a fire, and gain a better understanding of the detailed processes and mechanisms through which cold smoke affects the soil.

Gaining a thorough understanding of the process that leads to fire-induced soil water repellency is important because land managers need this information in order to accurately predict where soils are likely to be hydrophobic after a fire, Berli explained. "We still don't really understand the processes that lead to this fire-induced soil water repellency," Berli said. "Depending on what we find, the measures to predict fire-

induced water repellency might be different, and this can have a significant impact on how we can predict and prevent flooding or debris flows that happen after a fire."
"This study was one big step forward, but it highlights the importance of future research on how fires affect soil, because wildfires are affecting thousands and thousands of square kilometers of land each year in the Western U.S.," Samburova added. "Some of our future goals are to find out how exactly this soil water repellency happens, where it happens and how long it lasts."

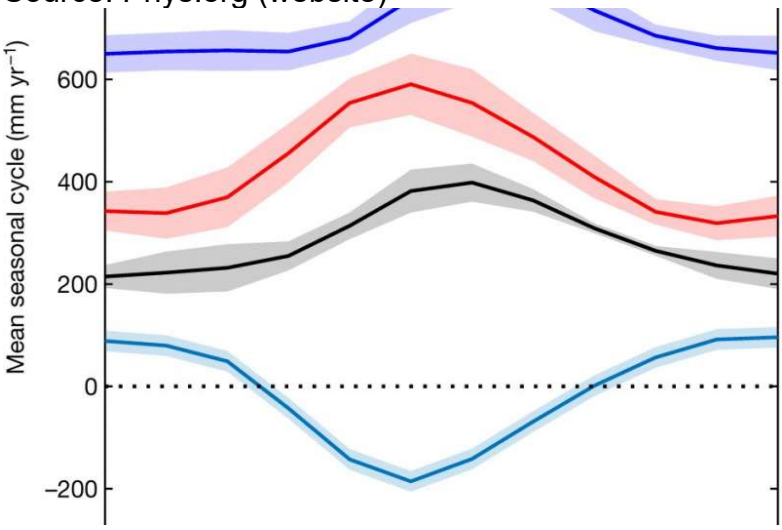
Additional Information:
This study was made possible with support from DRI and the National Science Foundation. Study authors included Vera Samburova, Ph.D., Rose Shillito, Ph.D. (currently with U.S. Army Corps of Engineers), Markus Berli, Ph.D., Andrey Khlystov, Ph.D., and Hans Moosmüller, Ph.D., all from DRI.
The full text of the paper, *Effect of Biomass-Burning Emissions on Soil Water Repellency: A Pilot Laboratory Study*, is available from
Fire: https://www.mdpi.com/2571-6255/4/2/24

About the Desert Research Institute
The Desert Research Institute (DRI) is a recognized world leader in basic and applied interdisciplinary research. Committed to scientific excellence and integrity, DRI faculty, students, and staff have developed scientific knowledge and innovative technologies in research projects around the globe. Since 1959, DRI's research has advanced scientific knowledge, supported Nevada's diversifying economy, provided science-based educational opportunities, and informed policy makers, business leaders, and community members. With campuses in Reno and Las Vegas, DRI serves as the non-profit research arm of the Nevada System of Higher Education. For more information, please visit www.dri.edu

MAY 27, 2021

Global evapotranspiration rose by 10% from 2003 to 2019

by Bob Yirka ,
Source: Phys.org (website)



Long-term mean seasonal cycle of ET (red solid line), Pr (blue line), Q (black line) and dS/dt (teal line) over 2003 to 2019.

In each case, the seasonal cycles have been bias corrected. The shading is the standard deviation among the bias-corrected seasonal cycle of the ET ensemble (red shading), and input datasets used for Pr (four datasets, blue shading), Q (five datasets, black shading) and dS/dt (three methods from JPL RL06 GRACE TWS, teal shading).
Credit: *Nature* (2021). DOI: 10.1038/s41586-021-03503-5

A team of researchers at NASA's Jet Propulsion Laboratory at the California Institute of Technology has found that global evapotranspiration rose by 10% from 2003 to 2019. In their paper published in the journal *Nature*, the group describes the original approach they took to measuring global evapotranspiration.

Evapotranspiration is the transfer of water from the ground to the air from both evaporation and transpiration, water emitted by plants. It is one of the main components of the planet's water cycle. Scientists have been predicting for several years that Earth's water cycle will gain energy as the planet heats up due to global warming—but proving it has been difficult because there is no reliable way to measure changes in evapotranspiration—until now, most efforts have been far too localized. In this new effort, the researchers found a way to calculate global evapotranspiration over periods of time using information from satellites.

Instead of attempting to measure evapotranspiration directly, as has been done in other efforts, the researchers used satellite data to measure other parts of the water cycle and then used that data to calculate the degree of evapotranspiration. And rather than using satellite imagery of clouds and groundwater, the researchers used data collected by the Gravity Recovery and Climate Experiment and its follow-up study GRACE-FO. Both were involved in measuring changes to large amounts of water on the surface. Notably, neither system needed to be able to see the ground below, which meant that measurements were not interrupted by cloud cover. The data from the satellites was in the form of changes in gravity that correspond with changes in large amounts of water—the satellites were actually pulled by such changes. Next, the researchers obtained data for the other parts of the water cycle. Then, using data from both sources, they were able to calculate the rate of evapotranspiration for the years 2003 to 2019. And as they did so, they noted that the rate rose slightly each year, and that over the entire span of time, the rate had risen by approximately 10 percent.

The Source: Civil Engineering Magazine PUBLIC POLICY

Testing and treating microplastics in water face challenges

By Poornima Apte

May 18, 2021

The deadline is looming: According to a state law adopted in 2018, the California State Water Resources Control Board has until July 1 to adopt a standard methodology for testing drinking water for the presence of microplastics; adopt requirements for four years of testing and reporting of microplastics in drinking water, including public disclosure of the results; and accredit qualified laboratories in California to analyze microplastics.

The problem? Testing for microplastics — which are defined as any plastic material less than 5 mm in length — is not quite ready for prime time. It is not yet precisely clear what effects microplastics have on animals, including humans, and at what levels they may be harmful. And it's not entirely clear how microplastics get into our bodies — through water, air, food, or other sources, if not all of the above.

A law before its time?

Theresa Slifko, Ph.D., a chemistry unit manager at the Metropolitan Water District of Southern California — a regional wholesaler that provides drinking water to nearly 19 million state residents — says managing microplastics requires "a method to evaluate toxicity in animals; a method to evaluate occurrence in water, including drinking water; good studies to evaluate toxicity in animals and humans; and good studies to evaluate if microplastics are present in treated drinking water and what treatment can remove them."

So the MWDSC is one of 40 labs — and the only public drinking water system — participating in a study coordinated by the Southern California Coastal Water Research Project that will report its findings to the state water board this summer. The board plans to use the information to help it select methods and develop a microplastics monitoring program for drinking water. "The recommendations will also be used to help California develop, adopt, and implement a statewide strategy for lessening the ecological risks of microplastics to coastal marine ecosystems," Slifko says. "This legislation is not about developing best available treatment technologies to remove microplastics. We need to figure out if there is a problem and the potential extent that would need to be addressed first."

The effect of ingesting microplastics from drinking water is "one of the questions we're trying to wrap our heads around," Slifko says. "Unfortunately, health assessments of

microplastics pose unusual and difficult situations because those studies also require good analytical tools. (Researchers) need to be able to design the right studies, ask the right questions, and get the answers they need to inform decision-making. Those goals are also impacted by lots of uncertainty and missing information."

Once researchers determine what levels of microplastics are actually harmful and in what ways, the next challenge will be determining how to test a given water sample to determine if it contains that threshold level. "One of the most important and key critical elements to monitoring drinking water for microplastics is the collection of a representative drinking water sample," Slifko says.

Making it mainstream

Marie Enfrin, Ph.D., a postdoctoral research fellow at the Royal Melbourne Institute of Technology's School of Engineering who focuses on microplastics research within the school's department of civil and environmental engineering, agrees that there is much information yet to be determined. "We have been surrounded by plastics for decades, but we don't know the effects of microplastics yet," Enfrin says. "When we don't know, we can't say for sure whether the effects are serious or not. And because there's this lack of knowledge, we still need to research the topic."

But Enfrin is convinced that once some of the basic questions have been answered, a traditional water filtration method could be of use. Various types of membranes are effective at removing other contaminants this way, and part of Enfrin's research is to develop a membrane system that can filter microplastics.

"Water treatment plants treat loads and loads of water every second," Enfrin says. "It's just not (feasible) to take 1 ml of water (out of the system) and take an hour or more to get an accurate estimate of microplastics concentrations" in that sample.

For now, though, microplastics' varying sizes and resistance to settling are challenges to be overcome before any useful in-process treatment systems can be designed. "Most (microplastics) have the same density as water, which means they do not float and they do not really sink," Enfrin says. This precludes the use of settling tanks or skimming procedures, two common methods used in water treatment today.

One possibility, Enfrin suggests, is finding a way to force the microplastics to coagulate into large enough particles to be filtered out, possibly toward the end of the treatment train.

For now, all that is certain is uncertainty: Testing and treatment are still far from ready to tackle the incidence of microplastics in drinking water — law or no law.

Stunning new photos reveal depths of 'historic' California drought

Some farmers are already abandoning their crops

SFGATE: by Andrew Chamings

June 2, 2021

A heat wave is currently baking a parched Northern California, worsening the extreme drought that Gov. Gavin Newsom has already described as "historic."

Once-wet lake beds have turned to dust, the snowpack in the Sierra is nonexistent and water shortages are already hitting home. And fears are growing for a potentially devastating wildfire season after 4.1 million acres of California were ravaged by flames in 2020.

In Fresno and Merced counties, farmers are making tough decisions, abandoning thousands of acres of lower-value, high-water crops like almond and asparagus fields, for more valuable produce.

"It's a really sad day," Fresno County's Joe Del Bosque told the Bay Area News Group, after destroying 100 acres of organic asparagus to divert precious water to more valuable melons. "The water is so uncertain this year. We didn't think we'd have enough to carry it through."

Elsewhere, Lake Tahoe's waters are so low some boats can no longer launch, while Lake Oroville's water level dropped down to 695 feet in January, its second-lowest point in recorded history.

Newsom has declared a drought emergency in 41 of California's 58 counties. More than 37 million Californians live in these drought areas, according to the U.S. drought monitor.

"This is without precedent," Newsom said from the cracked bed of Lake Mendocino in April. "Oftentimes we overstate the word historic, but this is indeed an historic moment."

New photos now reveal the intensity of the historic drought.

Justin Sullivan/Getty Images

Rows of almond trees sit on the ground during an orchard removal project on May 27 in Snelling, Calif. As the drought emergency takes hold in California, some farmers are having to remove crops that require excessive watering due to a shortage of water in the Central Valley.

One Central Valley farmer had 600 acres of his almond orchard removed and shredded, and now plans to replace the almonds with a crop the requires less water, reports Getty.

Justin Sullivan/Getty Images

In an aerial view, houseboats are dwarfed by the steep banks of Lake Oroville on April 27.

"It's definitely a reflection of the last two dry years we had," Eric See, environmental program manager for the California Department of Water Resources, told SFGATE. "We're entering into a drought period. We've gone through this before. It's something that's part of the landscape of California.

Correspondence

FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections – San Francisco Regional Office
100 First Street, Suite 2300
San Francisco, CA 94105-3084
(415) 369-3300 Office – (415) 369-3322 Facsimile

April 30, 2021

In reply refer to:
Project No. 3430-CA

Mr. John Friedenbach
General Manager
Humboldt Bay Municipal Water District
P.O. Box 95
Eureka, CA 95502-0095

Re: 2019-20 Dam Safety Surveillance and Monitoring Reports

Dear Mr. Friedenbach:

This is in response to your letters dated March 30, 2020 and March 30, 2021 that submitted the 2019 and 2020 Dam Safety Surveillance and Monitoring Reports (DSSMRs) for the R.W. Matthews Dam, which is part of the FERC No. 3430. We have reviewed the 2019-2020 DSSMR reports and we have a following comment:

- Section 4.3 of the 2019 DSSMR indicated these threshold/action levels would be established in the 2020 DSSMR. Please address the threshold/action levels in the next 2021 DSSMR for the survey markers at R.W. Matthews Dam based on historic movements since 1998.

Your cooperation in this aspect of the Commission's dam safety program is appreciated. If you have any questions, please contact Mr. Samuel Lee at (415) 369-3393.

Sincerely,

Frank L. Blackett, P.E.
Regional Engineer

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Submittals due Sept. 1, 2021.

Pacific Southwest Region

Decorations Needed

For the 2021 U.S. Capitol Christmas Tree

The Six Rivers National Forest is honored to provide this year's Christmas tree to adorn the west lawn of the U.S. Capitol, representing the USDA Forest Service and the great state of California. Handmade ornaments and tree skirts by Californians are needed to beautify the tree!

SUGGESTED THEMES

We encourage the use of recyclable, repurposed materials in honor of Woodsy Owl's 50th anniversary

Natural Resources: Wildlife, wildflowers, trees

Cultural Diversity: Tribes, logging, fishing, agriculture

Uniquely California: What makes our state special

Forest Service Icons: Smokey Bear "Fire Prevention" & Woodsy Owl "Don't Pollute"

4,000 LARGE ORNAMENTS

For U.S. Capitol Christmas Tree:

- Size between 9 to 12"
- Colorful & reflective
- Weatherproof to withstand the elements (wind, rain, snow)

HOW TO SUBMIT

Mail to: U.S Capitol Christmas Tree,
1330 Bayshore Way, Eureka, CA 95501
or check website for drop off locations.

11,000 SMALL ORNAMENTS

For 130 companion trees:

- Size between 4 to 6"
- Lightweight & colorful
- Durability not a concern

SEE EXAMPLES

Visit us online at:
USCAPITOLCHRISTMASTREE.COM

- Decorations cannot include logos, political or religious affiliation or symbols, drug or alcohol references, be divisive or offensive.
- Ornaments will not be returned

130 TREE SKIRTS

- 5 foot diameter
- Tree skirts could possibly be returned; no guarantees!
- Contact us if interested in creating a tree skirt

Scan code to visit:
uscapitolchristmastree.com

JOIN US TODAY!

To participate, please contact Maritza Guzman by emailing maritza.guzman@usda.gov or by calling (707) 672-3184

Continuing Business

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

To: Board of Directors

From: John Friedenbach

Date: June 10, 2021

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 - They are moving forward with permitting. For CEQA, they have changed from an MND to a full EIR. See attached news articles. Staff met with reps from Nordic to provide status updates. District staff will be providing information to Nordic from the 2015 hydrology report prepared by GHD regarding river flows.

ii) Trinidad Rancheria staff and HBMWD staff met to further our analysis for mainline extension. Staff continues to advance this project.

iii) District staff participated in a panel on May 25th at the Board of Supervisors concerning the drought situation in Humboldt County. See articles under agenda item 9.5.

b) Transport

Given another drought situation in California, there may be some renewed interest in transport.

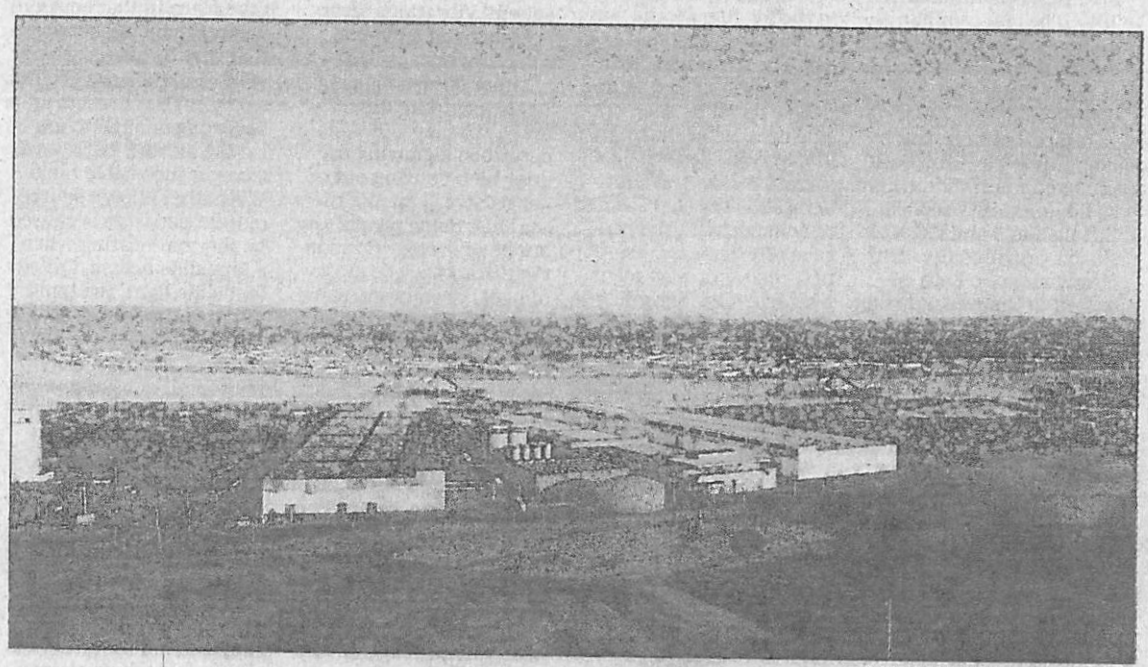
c) Instream Flow Dedication

The team met to review the proposed edits to project goals under the District's Habitat Conservation Plan (HCP). The committee members will provide a report out to the Board. Meetings with NMFS and CDFW will be scheduled for July to review HCP in context of instream flow dedication.

Nordic fish farm moves forward

Local contractors sought to help build $500M site

By Isabella Vanderheiden
ivanderheiden@times-standard.com



NORDIC AQUAFARMS — CONTRIBUTED

Nordic Aquafarms has entered the public review process for its proposed onshore fish farm. Following third-party review, the County of Humboldt prepared a mitigated negative declaration for public review. This is a computer-generated illustration of the proposed facility at the former Samoa Pulp Mill site.

Humboldt County has given Norway-based seafood company Nordic Aquafarms the green light to move forward to public review bringing the company one step closer to making its half-billion-dollar onshore fish farm a reality.

The project includes clean-up and redevelopment of the defunct Samoa pulp mill facility followed by construction of five buildings with a combined footprint of 766,530 square feet, according to the county.

Nordic submitted its permit applications to the county last November. Following third-party review and several iterations, the mitigated negative declaration finding of no significant adverse environmental effect has been released for public review.

"We also expect the discharge draft permit to be sent out for public comments by the (Water Quality Control Board) soon," said Marianne Naess, Commercial director of Nordic Aquafarms. "We are very satisfied with the work from our local permitting partners and look forward to getting feedback on the (California Environmental Quality Act) documents and all the studies that are accompanying the applications."

Addressing the question of how the facility will withstand an earthquake or tsunami, Naess said the facility will be designed to withstand significant seismic impact and will use "a ground densification methodology" to ensure the buildings will remain intact during a seismic event.

Yet local commercial fishermen such as Jake McMaster, a board member of the Humboldt Fisherman's Marketing Association, have raised concerns surrounding fish escape and water filtration.

"Fishermen and the Humboldt Fishermen's Marketing Association as a whole really have environmental concerns about the Nordic project," McMaster told the Times-Standard. "Concerns from sucking 10 million gallons of water out of the bay every day as well as fish escapes. I realize Nordic has repeatedly stated that fish escapes are impossible but we all know nothing is impossible."

Nordic announced its plans to grow Atlantic salmon within the confines of its facility back in March. Because Atlantic salmon is not a native species, McMaster fears a fish escape could have devastating impacts on native salmon populations.

"Say 19 salmon get out. Not only do the Chinook and coho salmon have disease from this Atlantic salmon to worry about, now you have them foraging for the same food source," McMaster said. "Juvenile Chinook and coho could potentially be a food source for escaped Atlantic salmon."

However, Naess said the height of the fish tanks and the fish net above the tanks will prevent fish from escaping.

"The facility is designed so there are five to seven physical barriers through the piping system so the fish would not be able to escape through the water pipes," she said. "Physical barriers include filters that are as small as 0.04 microns — a hair is 40 microns. All filters are designed to be smaller than the fish occupying that particular part of the facility. The facility is designed so that even with a human error, there would be several other physical barriers that would prevent the fish from escaping."

Despite Naess' reassurances, McMaster said more environmental studies should be conducted before the project is approved.

"It's hard to be a guinea pig for a project," McMaster said. "I don't really know if there's anything they could do to put everybody's mind at ease."

"I can assure you that Humboldt County will not be a guinea for Nordic," Naess said, adding that the community is welcome to attend Nordic's weekly Zoom informational meetings for clarity.

Local contractors sought

Since the project's inception, Nordic has echoed the community's call to hire locally. The project will create approximately 300 local jobs during construction and 150 permanent jobs when the facility is fully built out.

Though Nordic has selected national construction firm Gilbane Building Company as the construction manager, the company is working with Humboldt County-based engineers to find local contractors to work on the project. Nordic representatives will host a contractor pre-qualification informational meeting on May 18.

"This means much-needed jobs will come to Humboldt County," said Jeff Hunerlach, Operating Engineers Local 3 district representative.

"As it is now, many of our members have to travel many hours away from home (Bay Area, etc.) to get work. This takes their spending power out of the local economy and also puts a strain on their families, as they are gone, sometimes for weeks at a time," Hunerlach said. "Nordic seems to understand our

FISH » PAGE 4

Tri-City Weekly Shopper — Times-Standard
May 11, 2021

Fish

FROM PAGE 1

take on making sure there is a local-hire component to this job"

Rob McBeth, president of O&M Industries, said Gilbane will select local contractors for various parts of the job and said O&M will be one of the local contractors bidding.

"While there will be out-of-town contractors involved just due to the sheer size of the project, there should be plenty of opportunity for local contractors and their local employees," McBeth said.

Nordic Aquafarms embraces more scrutiny for Samoa plan

By **ISABELLA VANDERHEIDEN** Times-Standard
PUBLISHED: May 29, 2021

Seafood company, county, environmentalists sound off on what's next for proposed onshore fish farm

In response to growing community concern surrounding its proposed 766,530 square foot onshore fish farm, Nordic Aquafarms recently agreed to pursue additional environmental review and seek an environmental impact report. This is a computer-generated illustration of the proposed facility at the former Samoa Pulp Mill site. (Nordic Aquafarms — Contributed)

Norway-based seafood company Nordic Aquafarms announced this week that it will pursue an environmental impact report (EIR) for its proposed onshore fish farm on the Samoa Peninsula in response to calls for further environmental analysis.

"I think it's better for Nordic and better for the community to have a frank and open discussion on the project and potential impacts," said Marianne Naess, commercial director of Nordic Aquafarms. "I think this gives us an opportunity to move forward as a better partner to the community."

The Humboldt County Planning and Building Department released a mitigated negative declaration (MND) for the project last month but a coalition of environmental groups argued that the assessment didn't go far enough.

"An EIR is necessary to meet the purpose of (the California Environmental Quality Act) to solicit feedback from an engaged citizenry, thereby improving projects through democratizing decision-making," the coalition wrote in a May 24 letter to the county. "An (EIR) is required whenever there is substantial evidence in the record that supports a 'fair argument' that the significant impacts may occur, even if there is other substantial evidence that supports that no significant impact may occur."

The letter outlined several primary concerns associated with the project, including greenhouse gas emissions from refrigerants and fluorinated gases, energy use, fish feed, fish waste disposal, water use and transportation impacts.

What is the difference between an MND and an EIR? According to Humboldt County Planning and Building director John Ford, an MND is prepared when there are "potentially significant impacts to the environment which can be mitigated to a less

than significant level," whereas an EIR is prepared when potentially significant impacts "cannot be mitigated to a less than significant level."

"Many do not realize the amount of study that is involved in both processes," Ford said. "An MND or EIR is only as good as the technical information used to make those determinations. For a project like Nordic, the background studies between an MND and EIR are only different in their conclusions (potentially significant vs. less than significant impacts.)"

Ford noted that the EIR process takes more time and includes a Notice of Preparation, a 30-day public review period including public scoping meetings, along with a 45 to 60 day public review period of the draft EIR whereas public review for the MND is only 30 days. The final EIR also includes responses to comments made on the draft EIR.

Nordic plans to submit its draft EIR for review in July.

"I think the technical information used to prepare the Nordic MND is adequate and the conclusions on the MND are adequate," Ford said. "The EIR will be addressing some new components related to the seawater intake and will provide the public with a more deliberate process to engage. At this time and under the circumstances, preparation of an EIR is the best decision."

The coalition couldn't agree more. Jennifer Kalt, director of Humboldt Baykeeper, said Nordic should have pursued an EIR in the first place.

"Such a massive project is not something where shortcuts can be taken in the environmental review process and we appreciate their willingness to just go straight into the draft EIR process rather than push it through (the MND) process and see how it goes," Kalt said. "I think it's just saving everyone a lot of time and effort to just agree to do the draft EIR right away."

Naess said Nordic was not trying to take a shortcut by preparing an MND instead of an EIR.

"Doing MND was assessed as the proper, appropriate technical process but, you know, process matters," Naess said. "Making sure that we're a good partner because we're here for the long run so we want to make sure that we are a good partner to the community."

Kalt also voiced concern over where Nordic's fish feed would be sourced.

"They're going to produce 73 million pounds of salmon fillets a year and if they feed a very low ratio like 1.5 to one pound of fish produced, that's a lot of fish to harvest out of the ocean," Kalt said. "Will it be done in a way that's sustainable? Because those

fish are generally not protected by the same kind of laws, regulations and protections for commercial species."

Naess said Nordic has not yet selected a producer to feed their Atlantic salmon but shared a detailed list of requirements the producer would have to meet, such as non-GMO ingredients and byproduct trimmings from consumption fisheries. Nordic will also require that suppliers have a monitoring program for environmental contaminants in the feed they produce, she said.

Delia Bense-Kang, campaign coordinator for the Surfrider Foundation, said Nordic's decision to seek an EIR demonstrates "commitment to the local community and to rigorous environmental review."

"This project is unlike anything seen before in Humboldt County – or even the state of California. A project of this size and scope should, without question, include meaningful public participation to help identify both potential harm from the project and mitigation measures that might be needed," she told the Times-Standard. "The Humboldt Bay region hosts an informed and diverse community who cares deeply for our coast and ocean and whose knowledge can – and should – inform how this project moves forward."

Bense-Kang said that it would be great to see the defunct Samoa pulp mill facility cleaned up but said the project also comes with a number of concerns, "including potential impacts to the marine environment from the ocean discharge and the bay intake, the amount of energy the operation will require and how the dramatic increase of workforce and shipping traffic might affect residents and recreationists on the peninsula."

Speaking on behalf of 350 Humboldt, a grassroots climate action group, Daniel Chandler raised concerns about greenhouse gas emissions.

"The aquafarm is a very large project, using a great deal of electricity. So our main concern is that this electricity be from clean and renewable sources rather than using PG&E, which is about 60% from gas power plants now," Chandler told the Times-Standard. "Luckily, the Redwood Coast Energy Authority can supply energy from renewables only."

Naess said Nordic plans to install 16-acres of solar panels onsite.

"We do use a lot of energy but keep in mind that this facility only uses electricity, not fossil fuels," she said. "We have a backup generator because we are dealing with live animals, so in case there's a shutdown we need to be able to power the facility but in normal operations, we're not using any fossil fuels…Our goal is to be 100% carbon-free but we also have to use whatever is accessible here in California."

Tom Wheeler, executive director of the Environmental Protection and Information Center, said he is watching the project closely.

“We are happy that Nordic agreed to do a more thorough environmental analysis because we think that it’s warranted here, given this is pretty new technology and a pretty significant development and has the potential for significant environmental impacts,” Wheeler said. “We’re appreciative that Nordic and the county are moving forward with doing an EIR and we’re looking forward to reviewing that later but we have not taken a position either opposed or in favor of the project.”

Wheeler shared many of the concerns previously mentioned by other members of the coalition but noted the potential for the community to benefit from the project.

“The project site will need to be cleaned up as part of the aquafarm, that’s fantastic,” he said. “I think that this project is more nuanced and more complex than folks might perceive it to be at first blush. There are certainly issues that we’re concerned with such as energy use, feedstock, truck traffic and so on, but there are also potential benefits. We have to look at the whole of the project together to figure out our group’s position on it.”

“We’re doing everything we can to be as sustainable as possible,” Naess said. “I think it is important to have a good, thorough dialogue and understanding that we are doing everything we can to be a good partner and have a small environmental footprint.”

Nordic community liaison Lynette Mullen encouraged community members to send concerns or inquiries about the project to lynette.mullen@gmail.com.

1. Nordic Aquafarms California, LLC Coastal Development Permit and Special Permit Project, Record Number PLN-2020-16698
   Assessor Parcel Number 401-112-021.
   Samoa area

   A Coastal Development Permit and Special Permit to authorize the redevelopment of the decommissioned Freshwater Tissue Samoa Pulp Mill facility in order to construct a land-based finfish recirculating aquaculture system (RAS) facility including a three to five-megawatt (3-5 MW) photovoltaic solar panel array covering approximately 690,000 square feet of the facility roofs. The Project will be conducted in two phases and is comprised of the following activities: demolition of existing pulp mill infrastructure; soil contamination remediation; ground densification; aquaculture facility construction; decommission of an existing leach field and connection to the Samoa wastewater treatment system for Phase 2. A total of five (5) buildings will be constructed with a combined footprint of 766,530 square feet. The height of the tallest proposed building is 60 feet. The project will include ancillary support features such as paved parking, fire access roads, security fencing, and stormwater management features. The applicant is proposing to raise Atlantic Salmon, subject to approval from the California Department of Fish and Wildlife. Existing onsite water service supplied by the Humboldt Bay Municipal Water District would be connected to the new buildings for potable use, fire sprinklers, and irrigation. Saltwater would be supplied by sea chest infrastructure operated by the Harbor District. Treated wastewater would be discharged utilizing the existing Redwood Marine Terminal II ocean outfall pipe. The Project Site is located on a former pulp mill site that remains an active Brownfield site (Regional Water Quality Control Board case no. 1NHU892), which includes Geotracker Field Points as shown in the EnviroStar and Geotracker online databases. The Project is located 1,000 feet east of the Samoa Solid Waste Disposal Site (SWDS).

   Recommendation: Continue to a date uncertain.

H. ADJOURNMENT

I. NEXT MEETINGS **June 17, 2021** **6:00 p.m.** **Regular meeting - Virtual**

The County of Humboldt is committed to providing equal access to all county programs, services and activities through the provision of accommodations for individuals with disabilities as required under the Americans with Disabilities Act (ADA). With 72 hours prior notice, a request for reasonable accommodation or modification can be made. Please contact the Planning Commission Clerk at 707-445-7541 or by email planningclerk@co.humboldt.ca.us or the ADA Coordinator at 844-365-0352 or by email at ada@co.humboldt.ca.us

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D., Director
700 Heinz Avenue
Berkeley, California 94710-2721

Gavin Newsom
Governor

May 17, 2021

Mr. Erik Nielsen
SHN Consulting Engineers & Geologists, Inc.
812 West Wabash Avenue
Eureka, California 95501
enielsen@shn-engr.com

APPROVAL OF SURFACE WATER SAMPLE RESULTS FOR FORMER MCNAMARA AND PEEPE LUMBER MILL, ARCATA, CALIFORNIA

Dear. Mr. Nielsen:

The Department of Toxic Substances Control (DTSC) has completed its review of the Surface Water Sample Results letter (Letter), dated May 17, 2021, for Former McNamara and Peepe Lumber Mill in Arcata, California (Site). The Letter presents the results of the surface water sampling event which took place at the Site on February 18, 2021. DTSC provided comments on previous drafts of the Letter and the revised Letter satisfactorily addresses DTSC's comments. DTSC hereby approves the Letter.

If you have any questions, please contact me via email at Nicole.Yuen@dtsc.ca.gov.

Sincerely,

JRandeni

Jayantha Randeni for
Nicole Yuen
Project Manager
Site Mitigation and Restoration Program – Berkeley Office
Department of Toxic Substances Control

cc: John Friedenbach
Humboldt Bay Municipal Water District
friedenbach@hbmwd.com

Reference: 020189.050

May 17, 2021

Nicole Yuen
California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710

Subject: Surface Water Sample Results, Former McNamara and Peepe Lumber Mill, 1619 Glendale Drive, Arcata, California; EnviroStor ID: 12240115

Dear Nicole Yuen:

This letter presents the results of the surface water samples collected on February 18, 2021, at the former McNamara and Peepe Lumber Mill, located at 1619 Glendale Drive, in Arcata, California (Figure 1). The intent of this sampling program was to assess surface water for the presence of contaminants associated with historical use of wood treating chemicals at the site. This report presents a description of surface water sample locations, a summary of sample collection activities, and laboratory analytical results. SHN performed this work on behalf of the California Department of Toxic Substance Control (DTSC). Work was conducted in general accordance with February 3, 2021 Surface Water Sampling and Analysis Plan submitted to the DTSC (SHN, 2021).

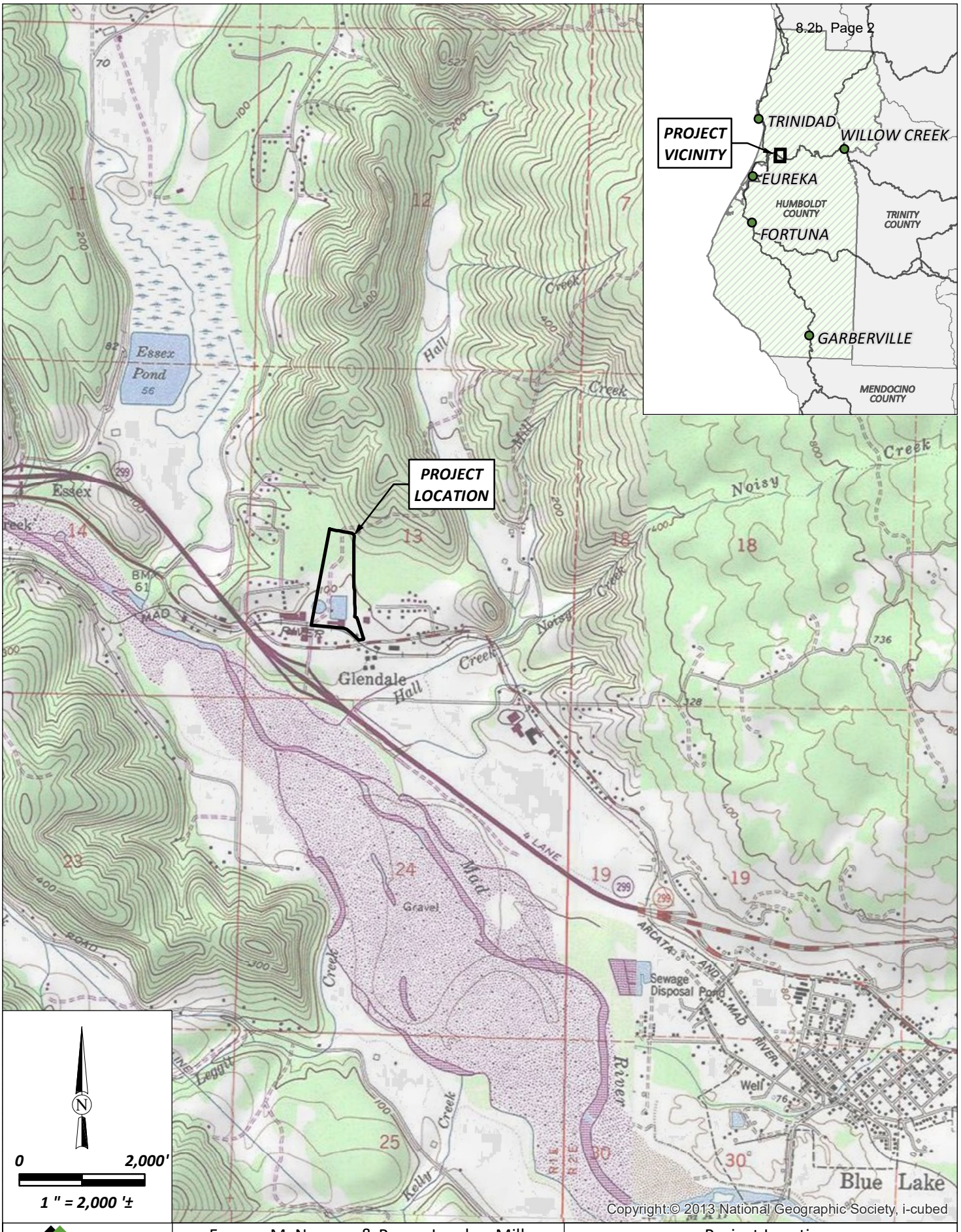
1.0 Site Information

From 1967 to 1984, the use of a chemical fungicide containing pentachlorophenol (PCP) and tetrachlorophenol (TCP) occurred at the site to treat lumber. Spillage and drippings from the "green chain" fungicide application area are suspected to have caused PCP and TCP contamination in soil and groundwater. In 1998, soils in the green chain area were consolidated and capped with an impervious layer (concrete) to prevent PCP and TCP detected in soil from being discharged to groundwater and surface water. The location of the concrete cap and surface water flow across the site are shown in the former McNamara and Peepe Lumber Mill site plan (Figure 2).

A man-made vegetated surface water drainage ditch constructed along a railroad corridor is located on the former mill southern boundary. The southern drainage ditch receives most site surface water runoff through hardline conveyance structures. Surface water in the drainage ditch flows east into Hall Creek, which is a tributary to the Mad River. The southern drainage ditch is adjacent to and topographically below the capped area.

An inspection of the cap on January 12, 2021, by SHN staff identified the following locations for surface water sample collection:

> **SW-1**. Central site drainage conveyance located topographically higher in elevation than the capped area is intended to identify background conditions of surface water upstream from the cap.



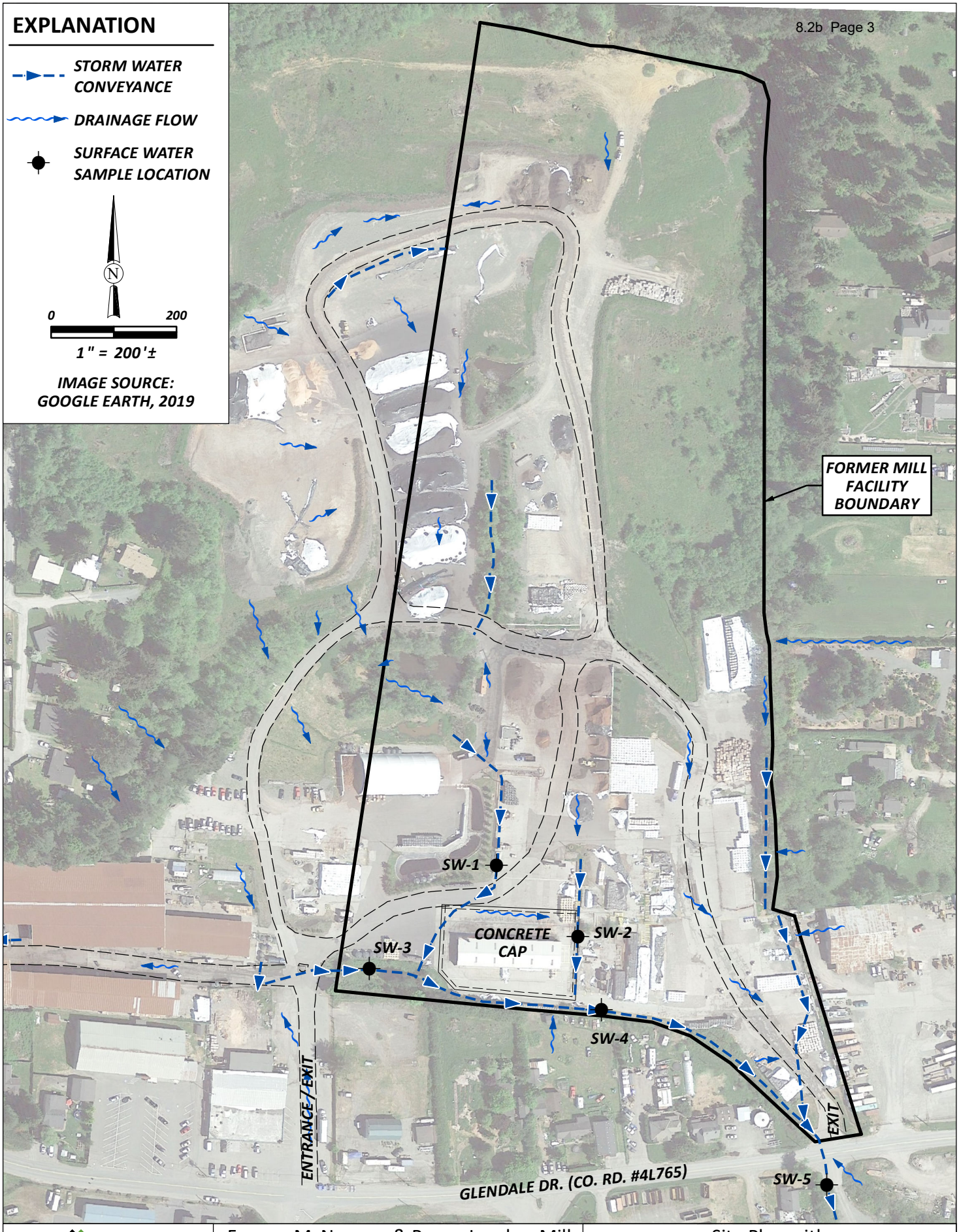
N

0 2,000'

1 " = 2,000 '±

Path: \\Eureka\Projects\2020\020189-M-P-Mill\GIS\PROJ_MXD\SWSP\SWSP_Fig1_ProjectLocation.mxd User Name: jsousa DATE: 1/15/21, 10:25AM

SHN	Former McNamara & Peepe Lumber Mill Storm Water Sampling Plan Glendale Drive, Arcata, California	Project Location SHN 020189.050
	January 2021 | SWSP_Fig1_ProjectLocation	Figure 1



\\eureka\Projects\2020\020189-M-P-Mill\GIS\PROJ_MXD\SWSP\ USER: mcurran DATE: 2/3/21, 11:04AM

SHN	Former McNamara & Peepe Lumber Mill Storm Water Sampling Plan Glendale Drive, Arcata, California	Site Plan with Surface Water Sample Locations SHN 020189.050
	February 2021 | SWSP_Fig2_SitePlan	Figure 2

SW-2. Located east of the central drainage in a conveyance structure upstream from the cap. This sample location is intended to identify conditions in surface water prior to contact with the cap.

SW-3. Southern drainage ditch upstream sample location is intended to assess conditions in surface water from the western portion of the ditch.

SW-4. Southern drainage ditch downstream of the cap and adjacent to monitoring well MW-1, which contains elevated concentrations of PCP and TCP. This sample location is intended to assess potential impacts from capped material in surface water.

SW-5. Downstream surface water sampling location in the southern drainage ditch to identify potential contaminants leaving the site.

The surface water sample locations selected are intended to determine background conditions and if contaminant-impacted soil and groundwater are contributing to surface water that could be migrating offsite.

2.0 Field Activities

On February 18, 2021, SHN conducted surface water sampling of the former McNamara and Peepe Lumber Mill. To achieve assessment program objectives, surface water samples were collected during a period of high groundwater and while stormwater discharge was occurring. Surface water samples were collected from five separate sampling locations in accordance with applicable procedures as described in Section 5 (Monitoring Implementation Plan) of the existing stormwater pollution prevention plan (SWPPP) prepared for the Royal Gold facility, as part of the existing industrial general permit DWO-2014-0057-DWQ (Streamline, 2017).

Surface water conditions and pH were documented during sampling activities using portable instrumentation. A surface water sample was then collected from each sampling location using an extendable pole sampler. The water samples were placed in laboratory-supplied containers, labeled, immediately placed in an ice-filled cooler, and submitted to the laboratory for analyses under the appropriate chain-of-custody. Appendix 1 presents field notes for surface water sample collection and photographs.

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.

3.0 Laboratory Analysis

Surface water samples collected were analyzed for the following constituents:

- chlorinated phenols (PCP and 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 8290.

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 Frontier Analytical Laboratory, a state-certified analytical laboratory located in El Dorado Hills, California. The RL for 2,3,7,8- tetrachlorobenzeno-p-dioxin (TCDD) ranged from 0.459 to 0.762 picograms per liter (pg/L). The method detection limit (MDL) for 2,3,7,8-TCDD analysis for all surface water samples analyzed was 0.364 pg/L.

4.0 Surface Water Sampling Results

Table 1 summarizes the February 2021 surface water analytical results for dioxins, PCP, and TCP.

Table 1. Surface Water Analytical Results, February 18, 2021
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	<0.512[f]	0.0736	<0.30	<1.0
SW-2	<0.609	7.79	<0.30	<1.0
SW-3	<0.530	4.44	0.099 J[g]	<1.0
SW-4	<0.459	11.4	0.11 J	<1.0
SW-5	<0.762	8.04	0.14 J	<1.0
MCL[h]	**30**	**NR[i]**	**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
[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] MCL: maximum contaminant level, State Water Resources Control Board, March 13, 2019
[i] 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. Calculations used for the 2005 World Health Organization Toxic Equivalency Factors (TEFs) for dioxins and furan compounds is additionally provided in Appendix 2.

5.0 Discussion

TCP and 2,3,7,8-TCDD were not detected in the surface water samples collected during the February 18, 2021, sampling event above laboratory reporting limits. The reported dioxin toxic equivalency quotient (TEQ) was below the State of California maximum contaminant level for 2,3,7,8-TCDD (30 ug/L) but above the California Public Health Goal (PHG) of 0.05 pg/L (OEHHA, 2019). PCP was detected in surface water sample locations below the cap (SW-3, SW-4, and SW-5) at estimated concentrations that are below the laboratory reporting limit, but above the MDL. The highest PCP concentration in surface water was detected in the southern drainage ditch, downstream of the concrete cap as water discharged off the former mill site (SW-5). PCP concentrations identified in all surface water samples collected during the February 2021 monitoring event were below the State MCL permissible in drinking water (1.0 ug/L) and the California PHG (0.3 ug/L).

Please call me at (707) 441-8855 if you have questions or comments regarding this report.

Sincerely,

SHN

Erik J. Nielsen, P.G., C.H.G.
Senior Hydrogeologist

EJN/WRB:ame

Appendices: 1. Field Notes and Photographs
2. Laboratory Analytical Reports

References

California Office of Environmental Health Hazard Assessment. (2019). “California Public Health Goals.” Sacramento, CA:OEHHA.

Engineering Remediation Resource Group. (December 2019). “Technical Memorandum August 2019 Groundwater Monitoring Event McNamara and Peepe Lumber Mill 1619 Glendale Drive, Arcata, California.” NR:ERRG.

National Geographic Society. (2013). Accessed through ESRI i-cubed January 15, 2021. NR:NGS.

SHN. (February 3, 2021). “Surface Water Sampling and Analysis Plan, Former McNamara and Peepe Lumber Mill, 1619 Glendale Drive, Arcata, California; EnviroStor ID: 12240115.” Eureka, CA:SHN.

Streamline Planning Consultants. (October 2017). *Stormwater Pollution Prevention Plan, Royal Gold Premium Potting Soils, Arcata California. WDID: 1 12I025790.* Arcata, CA:Streamline.

Field Notes and Photographs

1

Sampling Field Log

Date and Time of Inspection:	Date Report Written:
2/18/2021 1500	2/18/2021

General Information

Site Information

Facility Name: Facility Name: **Former McNamara and Peepe Lumber Mill**

Facility Address: **1619 Glendale Drive, Arcata, CA**

Weather

Antecedent Conditions (last 48 hours):	Current Weather:
0"	RAIN

Sampling Event Type:	☑ Stormwater	☐ Non-stormwater	☐ Non-visible pollutant

Field Meter Calibration

pH Meter ID No./Description	Calibration Date/Time:
Apera pH 60 tester 2/18/2021	2/18/2021 1420

Field pH Measurements

Location Description	pH	Time	Comments
SW-1	7.54	1514	turbid
SW-2	7.47	1529	turbid
SW-3	7.21	1542	turbid
SW-4	7.02	1504	turbid
SW-5	6.96	1549	

Samples Collected

Location Description	Time	Sample Type
SW-1	1515	surface water
SW-2	1530	↓
SW-3	1543	
SW-4	1505	
SW-5	1550	

Additional Sampling Notes:

End Time: 1600

Inspector Information

Inspector Name:	Inspector Title:
Whitney Brown	Staff Engineer
Signature: Whitney B	Date: 2/18/2021

Surface Water Sampling Location 1 (SW-1)

Surface Water Sampling Location 2 (SW-2)

Surface Water Sampling Location 3 (SW-3)

Surface Water Sampling Location 4 (SW-4)

Surface Water Sampling Location 5 (SW-5)

Laboratory Analytical Reports 2

NORTH COAST LABORATORIES LTD.

March 12, 2021

SHN Consulting Engineers and Geologists
812 West Wabash Avenue
Eureka, CA 95501

Attn: Erik Nielsen

Order No.: 2102379
Invoice No.: 157526
PO No.:
ELAP No.1247-Expires July 2021

RE: 020189.050 M&P Mill

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	SW-1
02A	SW-2
03A	SW-3
04A	SW-4
05A	SW-5

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Moore, Project Manager

Date: 12-Mar-2021
WorkOrder: 2102379

CASE NARRATIVE

J Flags:
Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 12-Mar-2021
WorkOrder: 2102379

ANALYTICAL REPORT

Client Sample ID: SW-1 **Received:** 2/18/2021
Lab ID: 2102379-01A **Matrix:** Surface Water **Collected** 2/18/2021 15:15
Test Name: Chlorinated Phenols **Analyst:** WHB
Reference: Canadian Pulp Report/NCASI 86.07

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Prepared	Analyzed
2,3,4,6-Tetrachlorophenol	ND			1.0	0.32	µg/L	1.0	03/03/2021	03/04/21 20:41
Pentachlorophenol	ND			0.30	0.084	µg/L	1.0	03/03/2021	03/04/21 20:41
Surrogate: 2,4,6-Tribromophenol	101			70-130	N/A	% Rec	1.0	03/03/2021	03/04/21 20:41

Client Sample ID: SW-2 **Received:** 2/18/2021
Lab ID: 2102379-02A **Matrix:** Surface Water **Collected** 2/18/2021 15:30
Test Name: Chlorinated Phenols **Analyst:** WHB
Reference: Canadian Pulp Report/NCASI 86.07

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Prepared	Analyzed
2,3,4,6-Tetrachlorophenol	ND			1.0	0.32	µg/L	1.0	03/03/2021	03/04/21 21:08
Pentachlorophenol	ND			0.30	0.084	µg/L	1.0	03/03/2021	03/04/21 21:08
Surrogate: 2,4,6-Tribromophenol	88.0			70-130	N/A	% Rec	1.0	03/03/2021	03/04/21 21:08

Client Sample ID: SW-3 **Received:** 2/18/2021
Lab ID: 2102379-03A **Matrix:** Surface Water **Collected** 2/18/2021 15:43
Test Name: Chlorinated Phenols **Analyst:** WHB
Reference: Canadian Pulp Report/NCASI 86.07

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Prepared	Analyzed
2,3,4,6-Tetrachlorophenol	ND			1.0	0.32	µg/L	1.0	03/03/2021	03/04/21 21:34
Pentachlorophenol	***0.099***	J		0.30	0.084	µg/L	1.0	03/03/2021	03/04/21 21:34
Surrogate: 2,4,6-Tribromophenol	102			70-130	N/A	% Rec	1.0	03/03/2021	03/04/21 21:34

Client Sample ID: SW-4 **Received:** 2/18/2021
Lab ID: 2102379-04A **Matrix:** Surface Water **Collected** 2/18/2021 15:03
Test Name: Chlorinated Phenols **Analyst:** WHB
Reference: Canadian Pulp Report/NCASI 86.07

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Prepared	Analyzed
2,3,4,6-Tetrachlorophenol	ND			1.0	0.32	µg/L	1.0	03/03/2021	03/04/21 22:00
Pentachlorophenol	***0.11***	J		0.30	0.084	µg/L	1.0	03/03/2021	03/04/21 22:00
Surrogate: 2,4,6-Tribromophenol	90.6			70-130	N/A	% Rec	1.0	03/03/2021	03/04/21 22:00

Date: 12-Mar-2021
WorkOrder: 2102379

ANALYTICAL REPORT

Client Sample ID: SW-5
Lab ID: 2102379-05A **Matrix:** Surface Water
Test Name: Chlorinated Phenols
Reference: Canadian Pulp Report/NCASI 86.07

Received: 2/18/2021
Collected 2/18/2021 15:50
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Prepared	Analyzed
2,3,4,6-Tetrachlorophenol	ND			1.0	0.32	µg/L	1.0	03/03/2021	03/04/21 22:27
Pentachlorophenol	***0.14***	J		0.30	0.084	µg/L	1.0	03/03/2021	03/04/21 22:27
Surrogate: 2,4,6-Tribromophenol	101			70-130	N/A	% Rec	1.0	03/03/2021	03/04/21 22:27

North Coast Laboratories, Ltd.

Date: 3/12/2021

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 2102379
Project: 020189.050 M&P Mill

QC SUMMARY REPORT

Method Blank

Sample ID **MB-39487** Batch ID: **39487** Test Code: **PCPTW** Units: **µg/L** Analysis Date **3/4/2021 6:29:43 PM** Prep Date **3/3/2021**

Client ID: Run ID: **ORGC18_210304A** SeqNo: **1511084**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Surrogate: 2,4,6-Tribromophenol	5.26	0.10	5.00	0	105%	70	130	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 3/12/2021

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 2102379
Project: 020189.050 M&P Mill

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID **2102379-03AMS** Batch ID: **39487** Test Code: **PCPTW** Units: **µg/L** Analysis Date **3/4/2021 7:49:08 PM** Prep Date **3/3/2021**
Client ID: **SW-3** Run ID: **ORGC18_210304A** SeqNo: **1511087**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.696	1.0	5.00	0	93.9%	77	128	0			
Pentachlorophenol	1.524	0.30	1.50	0.0990	95.0%	61	135	0			
Surrogate: 2,4,6-Tribromophenol	5.10	0.10	5.00	0	102%	70	130	0			

Sample ID **2102379-04AMS** Batch ID: **39487** Test Code: **PCPTW** Units: **µg/L** Analysis Date **3/4/2021 8:15:30 PM** Prep Date **3/3/2021**
Client ID: **SW-4** Run ID: **ORGC18_210304A** SeqNo: **1511088**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.631	1.0	5.00	0	92.6%	77	128	0			
Pentachlorophenol	1.538	0.30	1.50	0.109	95.3%	61	135	0			
Surrogate: 2,4,6-Tribromophenol	4.76	0.10	5.00	0	95.3%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 3/12/2021

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 2102379
Project: 020189.050 M&P Mill

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-39487** Batch ID: **39487** Test Code: **PCPTW** Units: **µg/L** Analysis Date **3/4/2021 6:56:12 PM** Prep Date **3/3/2021**
Client ID: Run ID: **ORGC18_210304A** SeqNo: **1511085**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.817	1.0	5.00	0	96.3%	77	128	0			
Pentachlorophenol	1.485	0.30	1.50	0	99.0%	61	135	0			
Surrogate: 2,4,6-Tribromophenol	5.18	0.10	5.00	0	104%	70	130	0			

Sample ID **LCSD-39487** Batch ID: **39487** Test Code: **PCPTW** Units: **µg/L** Analysis Date **3/4/2021 7:22:40 PM** Prep Date **3/3/2021**
Client ID: Run ID: **ORGC18_210304A** SeqNo: **1511086**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.999	1.0	5.00	0	100%	77	128	4.82	3.7%	30	
Pentachlorophenol	1.562	0.30	1.50	0	104%	61	135	1.48	5.1%	30	
Surrogate: 2,4,6-Tribromophenol	5.26	0.10	5.00	0	105%	70	130	5.18	1.5%	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 18.2b Page 23 1

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 2102379

Attention: Erik Nielsen
Results & Invoice to: SHN Engineering
Address: 812 W. Wabash Ave, Eureka 95501

Phone: (707) 441-8855
Copies of Report to: enielsen@shn-engr.com
wbrown@shn-engr.com
Sampler (Sign & Print): Whitney Brown W. B

PROJECT INFORMATION
Project Number: 020189.050
Project Name: M&P Mill
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	PRESERVATIVE	ANALYSIS: PCP/TCP
	SW-1	2/18/2021	1515	SW	5	e	✓
	SW-2		1530	SW			✓
	SW-3		1543	SW			✓
	SW-4		1503	SW			✓
	SW-5		1550	SW			✓

TAT: ☑ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
☐ State Forms
☐ Geotracker ☐ SWAMP ☐ Other EDD:
☑ Final Report PDF ☐ FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

	*need MDLs
Temperature: 3.8 °C	
~~pH in field =~~	
Received On Ice? Y / N	
Samples Intact? Y / N	
Preserved? Y / N	
Preserved @ NCL ?	
Y / N / NA	

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Whitney Brown W. B	2/18/21 1600		2/18/21 1616

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Test Report

April 13, 2021

Mr. Erik Nielsen
SHN Engineering
812 West Wabash Avenue
Eureka, CA 95501-2138

Dear Mr. Nielson,

The following results are associated with Frontier Analytical Laboratory project **13606**. This corresponds to your Project #: **020189.050** and Project Name: **M & P Mill**. The original data package was reported to you on March 5th, 2021. Five aqueous samples were received on 2/24/2021 in good condition. These samples were extracted and analyzed by EPA Method 8290 for tetra through octa chlorinated dibenzo dioxins and furans. The toxic equivalency (TEQ) for your samples has been calculated using the 2005 World Health Organization's Toxic Equivalency Factors (TEFs). SHN Engineering requested a turnaround time of fifteen business days for project **13606**.

Please note this is an amended report and has been paginated with the letter "A" to denote it as such. The following are the reasons for the amendment.

1. We have changed the OPR result units from ng/ml in the extract, which is the unit of measurement expressed in high resolution gas chromatography/high resolution mass spectrometry (HRGC/HRMS) dioxin/furan methods, to the concentration in the sample (pg/L), per your request.
2. We have included a Method Limit/Method Detection Limit (ML/MDL) form for your reference.
3. We have provided additional detail regarding the definition of the "J" qualifier.
4. We have provided additional detail regarding the definition of the "D" qualifier.
5. We have provided additional detail regarding the definition of the "M" qualifier.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our sample tracking log, the analytical results, the ML/MDL Form, and a detailed Qualifier page. The Sample Receipt section contains your chain of custody, our sample login form and a sample photo. The attached results and electronic data deliverables (EDDs) are specifically for the samples referenced in this report only. These results meet all National Environmental Laboratory Accreditation Program (NELAP) requirements and shall not be reproduced except in full. Frontier Analytical Laboratory's State of Oregon NELAP certificate number is **4041** and our State of California ELAP certificate number is **2934**. This report and the associated electronic data deliverables (EDDs) have been emailed to you. A hardcopy will not be sent to you unless specifically requested.

If you have any questions regarding project **13606**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **13606**

Received on: **02/24/2021** Project Due: **03/18/2021** Storage: **R-4**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
13606-001-SA	1	020189.050	SW-1	EPA 8290 D/F	Aqueous	02/18/2021	03:15 pm	03/20/2021
13606-002-SA	1	020189.050	SW-2	EPA 8290 D/F	Aqueous	02/18/2021	03:30 pm	03/20/2021
13606-003-SA	1	020189.050	SW-3	EPA 8290 D/F	Aqueous	02/18/2021	03:43 pm	03/20/2021
13606-004-SA	1	020189.050	SW-4	EPA 8290 D/F	Aqueous	02/18/2021	03:03 pm	03/20/2021
13606-005-SA	1	020189.050	SW-5	EPA 8290 D/F	Aqueous	02/18/2021	03:50 pm	03/20/2021

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EPA Method 8290
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 13606-001-MB
Client ID: Method Blank
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 0.0

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.402		-	0.364				
1,2,3,7,8-PeCDD	ND	0.874		-	0.539				
1,2,3,4,7,8-HxCDD	ND	1.24		-	0.661				
1,2,3,6,7,8-HxCDD	ND	1.28		-	0.702	Total TCDD	ND	0.402	
1,2,3,7,8,9-HxCDD	ND	1.24		-	0.659	Total PeCDD	ND	0.874	
1,2,3,4,6,7,8-HpCDD	ND	1.44		-	0.793	Total HxCDD	ND	1.28	
OCDD	ND	2.19		-	1.05	Total HpCDD	ND	1.44	
2,3,7,8-TCDF	ND	0.425		-	0.349				
1,2,3,7,8-PeCDF	ND	0.640		-	0.522				
2,3,4,7,8-PeCDF	ND	0.627		-	0.463				
1,2,3,4,7,8-HxCDF	ND	0.528		-	0.351				
1,2,3,6,7,8-HxCDF	ND	0.558		-	0.366				
2,3,4,6,7,8-HxCDF	ND	0.598		-	0.369				
1,2,3,7,8,9-HxCDF	ND	0.779		-	0.607	Total TCDF	ND	0.425	
1,2,3,4,6,7,8-HpCDF	ND	0.704		-	0.451	Total PeCDF	ND	0.640	
1,2,3,4,7,8,9-HpCDF	ND	0.944		-	0.735	Total HxCDF	ND	0.779	
OCDF	ND	1.69		-	0.992	Total HpCDF	ND	0.944	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	103	40.0 - 135	
13C-1,2,3,7,8-PeCDD	105	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	93.3	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	94.6	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	96.5	40.0 - 135	
13C-OCDD	93.1	40.0 - 135	
13C-2,3,7,8-TCDF	104	40.0 - 135	
13C-1,2,3,7,8-PeCDF	108	40.0 - 135	
13C-2,3,4,7,8-PeCDF	112	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	100	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	101	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	99.8	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	100	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	97.3	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	100	40.0 - 135	
13C-OCDF	94.9	40.0 - 135	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	97.5	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 3/3/2021

Reviewed By: _____

Date: 3/5/2021

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EPA Method 8290
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 13606-001-OPR
Client ID: OPR
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: NA
Amount: 1.000 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	183	140 - 260	
1,2,3,7,8-PeCDD	1060	700 - 1300	
1,2,3,4,7,8-HxCDD	1050	700 - 1300	
1,2,3,6,7,8-HxCDD	1050	700 - 1300	
1,2,3,7,8,9-HxCDD	1090	700 - 1300	
1,2,3,4,6,7,8-HpCDD	1010	700 - 1300	
OCDD	2140	1400 - 2600	
2,3,7,8-TCDF	190	140 - 260	
1,2,3,7,8-PeCDF	1020	700 - 1300	
2,3,4,7,8-PeCDF	996	700 - 1300	
1,2,3,4,7,8-HxCDF	1030	700 - 1300	
1,2,3,6,7,8-HxCDF	1030	700 - 1300	
2,3,4,6,7,8-HxCDF	1040	700 - 1300	
1,2,3,7,8,9-HxCDF	1020	700 - 1300	
1,2,3,4,6,7,8-HpCDF	1090	700 - 1300	
1,2,3,4,7,8,9-HpCDF	1090	700 - 1300	
OCDF	2090	1400 - 2600	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.5	40.0 - 135	
13C-1,2,3,7,8-PeCDD	102	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	87.9	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	87.6	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	86.8	40.0 - 135	
13C-OCDD	84.4	40.0 - 135	
13C-2,3,7,8-TCDF	97.1	40.0 - 135	
13C-1,2,3,7,8-PeCDF	99.9	40.0 - 135	
13C-2,3,4,7,8-PeCDF	106	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	88.3	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	89.0	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	93.0	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	90.9	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	86.3	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	89.2	40.0 - 135	
13C-OCDF	86.2	40.0 - 135	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	91.4	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 4/13/2021

Reviewed By: _____
Date: 4/13/2021

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EPA Method 8290
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 13606-001-SA
Client ID: SW-1
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: 02-24-2021
Amount: 1.048 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 0.0736

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.512		-	0.364				
1,2,3,7,8-PeCDD	ND	0.775		-	0.539				
1,2,3,4,7,8-HxCDD	ND	0.831		-	0.661				
1,2,3,6,7,8-HxCDD	ND	0.880		-	0.702	Total TCDD	ND	0.512	
1,2,3,7,8,9-HxCDD	ND	0.842		-	0.659	Total PeCDD	ND	0.775	
1,2,3,4,6,7,8-HpCDD	4.90	-	J	0.0490	0.793	Total HxCDD	2.23	-	J
OCDD	32.0	-	J	0.00960	1.05	Total HpCDD	9.57	-	J
2,3,7,8-TCDF	ND	0.566		-	0.349				
1,2,3,7,8-PeCDF	ND	0.768		-	0.522				
2,3,4,7,8-PeCDF	ND	0.776		-	0.463				
1,2,3,4,7,8-HxCDF	ND	0.589		-	0.351				
1,2,3,6,7,8-HxCDF	ND	0.603		-	0.366				
2,3,4,6,7,8-HxCDF	ND	0.629		-	0.369				
1,2,3,7,8,9-HxCDF	ND	0.794		-	0.607	Total TCDF	ND	0.566	
1,2,3,4,6,7,8-HpCDF	1.42	-	J	0.0142	0.451	Total PeCDF	ND	0.776	
1,2,3,4,7,8,9-HpCDF	ND	0.421		-	0.735	Total HxCDF	1.89	-	J
OCDF	2.57	-	J	0.000771	0.992	Total HpCDF	3.10	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	101	40.0 - 135	
13C-1,2,3,7,8-PeCDD	119	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	99.2	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	99.7	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	106	40.0 - 135	
13C-OCDD	107	40.0 - 135	
13C-2,3,7,8-TCDF	105	40.0 - 135	
13C-1,2,3,7,8-PeCDF	105	40.0 - 135	
13C-2,3,4,7,8-PeCDF	108	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	99.9	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	102	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	102	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	102	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	105	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	109	40.0 - 135	
13C-OCDF	107	40.0 - 135	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 3/3/2021

Reviewed By: _____
Date: 3/5/2021

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EPA Method 8290
PCDD/F

FAL ID: 13606-002-SA
Client ID: SW-2
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: 02-24-2021
Amount: 1.051 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 7.79

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.609		-	0.364				
1,2,3,7,8-PeCDD	1.80	-	J	1.80	0.539				
1,2,3,4,7,8-HxCDD	3.32	-	J	0.332	0.661				
1,2,3,6,7,8-HxCDD	7.71	-	J	0.771	0.702	Total TCDD	2.73	-	J
1,2,3,7,8,9-HxCDD	4.09	-	J	0.409	0.659	Total PeCDD	7.83	-	J,M
1,2,3,4,6,7,8-HpCDD	223	-		2.23	0.793	Total HxCDD	50.8	-	
OCDD	2940	-		0.882	1.05	Total HpCDD	420	-	
2,3,7,8-TCDF	ND	0.737		-	0.349				
1,2,3,7,8-PeCDF	ND	1.11		-	0.522				
2,3,4,7,8-PeCDF	ND	1.05		-	0.463				
1,2,3,4,7,8-HxCDF	1.99	-	J	0.199	0.351				
1,2,3,6,7,8-HxCDF	5.38	-	J	0.538	0.366				
2,3,4,6,7,8-HxCDF	2.67	-	J	0.267	0.369				
1,2,3,7,8,9-HxCDF	ND	0.971		-	0.607	Total TCDF	17.5	-	D,M
1,2,3,4,6,7,8-HpCDF	30.9	-		0.309	0.451	Total PeCDF	40.8	-	D,M
1,2,3,4,7,8,9-HpCDF	2.57	-	J	0.0257	0.735	Total HxCDF	100	-	D,M
OCDF	79.3	-		0.0238	0.992	Total HpCDF	95.1	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.0	40.0 - 135	
13C-1,2,3,7,8-PeCDD	111	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	94.0	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	91.9	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	98.4	40.0 - 135	
13C-OCDD	102	40.0 - 135	
13C-2,3,7,8-TCDF	93.8	40.0 - 135	
13C-1,2,3,7,8-PeCDF	93.7	40.0 - 135	
13C-2,3,4,7,8-PeCDF	97.5	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	93.8	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	94.2	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	93.9	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	94.5	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	97.7	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	105	40.0 - 135	
13C-OCDF	101	40.0 - 135	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	107	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 3/3/2021

Reviewed By: _____
Date: 3/5/2021

5172 Hillsdale Circle * El Dorado Hills, CA 95762 * Tel (916) 934-0900 * Fax (916) 934-0999 * www.frontieranalytical.com

EPA Method 8290
PCDD/F

FAL ID: 13606-003-SA
Client ID: SW-3
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: 02-24-2021
Amount: 1.043 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 4.44

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.530		-	0.364				
1,2,3,7,8-PeCDD	ND	1.41		-	0.539				
1,2,3,4,7,8-HxCDD	1.93	-	J	0.193	0.661				
1,2,3,6,7,8-HxCDD	7.97	-	J	0.797	0.702	Total TCDD	1.15	-	J
1,2,3,7,8,9-HxCDD	3.62	-	J	0.362	0.659	Total PeCDD	ND	1.41	
1,2,3,4,6,7,8-HpCDD	139	-		1.39	0.793	Total HxCDD	47.7	-	
OCDD	1380	-		0.414	1.05	Total HpCDD	272	-	
2,3,7,8-TCDF	ND	0.538		-	0.349				
1,2,3,7,8-PeCDF	ND	1.17		-	0.522				
2,3,4,7,8-PeCDF	ND	1.19		-	0.463				
1,2,3,4,7,8-HxCDF	3.08	-	J	0.308	0.351				
1,2,3,6,7,8-HxCDF	3.61	-	J	0.361	0.366				
2,3,4,6,7,8-HxCDF	2.41	-	J	0.241	0.369				
1,2,3,7,8,9-HxCDF	ND	1.05		-	0.607	Total TCDF	16.0	-	D,M
1,2,3,4,6,7,8-HpCDF	33.3	-		0.333	0.451	Total PeCDF	34.6	-	D,M
1,2,3,4,7,8,9-HpCDF	2.59	-	J	0.0259	0.735	Total HxCDF	91.7	-	D,M
OCDF	52.7	-		0.0158	0.992	Total HpCDF	95.0	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.2	40.0 - 135	
13C-1,2,3,7,8-PeCDD	111	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	98.3	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	95.3	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	101	40.0 - 135	
13C-OCDD	103	40.0 - 135	
13C-2,3,7,8-TCDF	99.4	40.0 - 135	
13C-1,2,3,7,8-PeCDF	98.0	40.0 - 135	
13C-2,3,4,7,8-PeCDF	97.2	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	107	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	107	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	107	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	105	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	109	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	115	40.0 - 135	
13C-OCDF	105	40.0 - 135	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	97.4	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 3/3/2021

Reviewed By: _____

Date: 3/5/2021

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EPA Method 8290
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 13606-004-SA
Client ID: SW-4
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: 02-24-2021
Amount: 1.045 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 11.4

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.459		-	0.364				
1,2,3,7,8-PeCDD	2.13	-	J	2.13	0.539				
1,2,3,4,7,8-HxCDD	4.49	-	J	0.449	0.661				
1,2,3,6,7,8-HxCDD	12.6	-	J	1.26	0.702	Total TCDD	2.63	-	J
1,2,3,7,8,9-HxCDD	6.51	-	J	0.651	0.659	Total PeCDD	12.6	-	J
1,2,3,4,6,7,8-HpCDD	305	-		3.05	0.793	Total HxCDD	81.1	-	
OCDD	3420	-		1.03	1.05	Total HpCDD	604	-	
2,3,7,8-TCDF	ND	0.658		-	0.349				
1,2,3,7,8-PeCDF	ND	0.796		-	0.522				
2,3,4,7,8-PeCDF	2.05	-	J	0.615	0.463				
1,2,3,4,7,8-HxCDF	5.05	-	J	0.505	0.351				
1,2,3,6,7,8-HxCDF	5.10	-	J	0.510	0.366				
2,3,4,6,7,8-HxCDF	4.12	-	J	0.412	0.369				
1,2,3,7,8,9-HxCDF	1.47	-	J	0.147	0.607	Total TCDF	31.4	-	D,M
1,2,3,4,6,7,8-HpCDF	54.8	-		0.548	0.451	Total PeCDF	47.5	-	D,M
1,2,3,4,7,8,9-HpCDF	4.23	-	J	0.0423	0.735	Total HxCDF	142	-	D,M
OCDF	123	-		0.0369	0.992	Total HpCDF	172	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	102	40.0 - 135	
13C-1,2,3,7,8-PeCDD	116	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	92.6	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	92.0	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	96.6	40.0 - 135	
13C-OCDD	97.2	40.0 - 135	
13C-2,3,7,8-TCDF	103	40.0 - 135	
13C-1,2,3,7,8-PeCDF	99.3	40.0 - 135	
13C-2,3,4,7,8-PeCDF	101	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	95.2	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	94.7	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	98.5	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	101	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	101	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	106	40.0 - 135	
13C-OCDF	97.2	40.0 - 135	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 3/3/2021

Reviewed By: _____
Date: 3/5/2021

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EPA Method 8290
PCDD/F

FAL ID: 13606-005-SA
Client ID: SW-5
Matrix: Aqueous
Batch No: X5629

Date Extracted: 03-01-2021
Date Received: 02-24-2021
Amount: 1.048 L

ICal: PCDDFAL3-10-23-20
GC Column: DB5MS
Units: pg/L

Acquired: 03-02-2021
2005 WHO TEQ: 8.04

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.762		-	0.364				
1,2,3,7,8-PeCDD	1.59	-	J	1.59	0.539				
1,2,3,4,7,8-HxCDD	3.18	-	J	0.318	0.661				
1,2,3,6,7,8-HxCDD	10.9	-	J	1.09	0.702	Total TCDD	ND	0.762	
1,2,3,7,8,9-HxCDD	4.90	-	J	0.490	0.659	Total PeCDD	3.30	-	J
1,2,3,4,6,7,8-HpCDD	195	-		1.95	0.793	Total HxCDD	60.0	-	
OCDD	2160	-		0.648	1.05	Total HpCDD	375	-	
2,3,7,8-TCDF	ND	0.632		-	0.349				
1,2,3,7,8-PeCDF	0.958	-	J	0.0287	0.522				
2,3,4,7,8-PeCDF	1.22	-	J	0.366	0.463				
1,2,3,4,7,8-HxCDF	2.19	-	J	0.219	0.351				
1,2,3,6,7,8-HxCDF	4.72	-	J	0.472	0.366				
2,3,4,6,7,8-HxCDF	2.98	-	J	0.298	0.369				
1,2,3,7,8,9-HxCDF	1.06	-	J	0.106	0.607	Total TCDF	15.3	-	D,M
1,2,3,4,6,7,8-HpCDF	41.1	-		0.411	0.451	Total PeCDF	38.8	-	D,M
1,2,3,4,7,8,9-HpCDF	3.11	-	J	0.0311	0.735	Total HxCDF	120	-	D,M
OCDF	69.0	-		0.0207	0.992	Total HpCDF	125	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	95.6	40.0 - 135	
13C-1,2,3,7,8-PeCDD	117	40.0 - 135	
13C-1,2,3,4,7,8-HxCDD	94.4	40.0 - 135	
13C-1,2,3,6,7,8-HxCDD	91.6	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDD	98.6	40.0 - 135	
13C-OCDD	103	40.0 - 135	
13C-2,3,7,8-TCDF	98.8	40.0 - 135	
13C-1,2,3,7,8-PeCDF	94.0	40.0 - 135	
13C-2,3,4,7,8-PeCDF	98.4	40.0 - 135	
13C-1,2,3,4,7,8-HxCDF	94.9	40.0 - 135	
13C-1,2,3,6,7,8-HxCDF	95.3	40.0 - 135	
13C-2,3,4,6,7,8-HxCDF	98.1	40.0 - 135	
13C-1,2,3,7,8,9-HxCDF	99.6	40.0 - 135	
13C-1,2,3,4,6,7,8-HpCDF	101	40.0 - 135	
13C-1,2,3,4,7,8,9-HpCDF	106	40.0 - 135	
13C-OCDF	101	40.0 - 135	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	50.0 - 150	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 3/3/2021

Reviewed By: _____
Date: 3/5/2021

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FAL-3 EPA Method 8290 Aqueous by SPE MDL

(SPE/SOX-SDS Extraction)

Analyte	ML	MDL
2,3,7,8-TCDD	5.00	0.346
1,2,3,7,8-PeCDD	25.0	0.539
1,2,3,4,7,8-HxCDD	25.0	0.661
1,2,3,6,7,8-HxCDD	25.0	0.702
1,2,3,7,8,9-HxCDD	25.0	0.659
1,2,3,4,6,7,8-HpCDD	25.0	0.793
OCDD	50.0	1.05
2,3,7,8-TCDF	5.00	0.349
1,2,3,7,8-PeCDF	25.0	0.522
2,3,4,7,8-PeCDF	25.0	0.463
1,2,3,4,7,8-HxCDF	25.0	0.351
1,2,3,6,7,8-HxCDF	25.0	0.366
2,3,4,6,7,8-HxCDF	25.0	0.369
1,2,3,7,8,9-HxCDF	25.0	0.607
1,2,3,4,6,7,8-HpCDF	25.0	0.451
1,2,3,4,7,8,9-HpCDF	25.0	0.735
OCDF	50.0	0.992
Total TCDD	5.00	0.346
Total PeCDD	25.0	0.539
Total HxCDD	25.0	0.702
Total HpCDD	25.0	0.793
Total TCDF	5.00	0.349
Total PeCDF	25.0	0.522
Total HxCDF	25.0	0.607
Total HpCDF	25.0	0.735

Based on a 1.000 Liter sample, units are in pg/L.

Qualifier Details

"J" qualifier – As reported on each data sheet, the definition is "Analyte concentration is below calibration range". We are required to report any dioxin or furan detected in any sample regardless of the concentration provided they meet the peak detection criteria. In many instances these concentration levels that are detected are below the method calibration limit. Technology has improved immensely since the inception of these dioxin and furan methods thus the ability to detect lower concentrations continues to improve. When these methods were first indoctrinated, the lowest point of calibration was difficult for some labs to ascertain, now it is commonplace and we have the ability to calibrate significantly lower than the method requires. The linear range of the instrument is well below the lowest calibration point of the method; however we are required to use the "higher" lowest calibration point and use the "J" flag for these concentrations. The lowest point of calibration, aka the Method Limit (ML) is listed on the ML/MDL form in this data package.

"D" qualifier – As reported on each data sheet, the definition is "Presence of Diphenyl Ethers". Diphenyl ethers have the ability to contribute to some of the quantitation ions associated with furans. If detected, these compounds can potentially contribute to the Total TCDF, Total PeCDF, and Total HxCDF and do not typically contribute to any of the 2,3,7,8-substituted isomers of these compounds. The 2,3,7,8-subtituted isomers of TCDF, PeCDF, and HxCDF are part of the seventeen 2,3,7,8-substituted congeners that are deemed toxic by the WHO. These seventeen 2,3,7,8-substituted congeners are used to determine the toxicity (TEQ) of your sample. None of the diphenyl ethers detected in any of your samples contribute to any of the seventeen 2,3,7,8-substituted congeners and thus do not contribute to the sample TEQs. Any instance there is a "D" qualifier it will be accompanied by the "M" qualifier which is explained next.

"M" qualifier – As reported on each data sheet, the definition is "Maximum possible concentration". The "M" qualifier refers to one of two instances. The first is if a peak meets all the reporting criteria except the theoretical ion abundance ratio. We are required to report this peak with the "M" qualifier. This peak is considered a positive detection and the resulting value is noted as the maximum possible concentration. Two quantitation ions are monitored for each homologue series. Of these two ions, there is a naturally occurring theoretical ion abundance ratio. In this particular instance (PeCDD), this is the ratio of the M+2 and M+4 ions. The theoretical ion abundance ratio for PeCDD is 1.55; thus the range for acceptable ion abundance ratios for PeCDD is 1.32-1.78. The one peak that is responsible for the "M" qualifier in this particular instance had an abundance ratio of 2.75 which is outside the limits however the peak meets all the other criteria and thus we are required to report it. Any concentrations reported with the "M" qualifier should be considered as the maximum concentration for that particular analyte or homologue series. The second instance is when a diphenyl ether is present and potentially contributes to the detection of a furan. The presence of the diphenyl ether is noted with the "D" qualifier as previously mentioned and will be accompanied by the "M" qualifier. The "M" qualifier denotes every possible peak, including those with an ion abundance ratio outside the QC limits and those that are detected in the presence of diphenyl ethers, and thus the concentration reported should be considered the maximum possible concentration.

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY
Laboratory Project No.: 136006
Temperature: 0 °C

Chain of Custody

www.frontieranalytical.com

Please Print in Pen **Page** 1 **of** 1

CLIENT INFORMATION	**INVOICE INFORMATION** (if different from client info)	**PROJECT INFORMATION**
Company Name: SHN Engineering	Company Name: Same	FAL Quote #:
Contact Name: Erik Nielsen	Contact Name:	P.O. #:
Address: 812 West Wabash Avenue, Eureka CA 95501-2138	Address:	Project #: 020189.050
Phone: 707-441-8855 Fax: 707-441-8877	Phone: Fax:	Project Name: M & P Mill
Email: enielsen @shn-engr.com & wbrown@shn-engr.com	Email: bsigler@shn-engr.com	TAT (business days): ☑ 15 ☐ 10 ☐ 5* ☐ 3* (√ one)
		* FAL must agree with price and RUSH TAT in writing.

REPORT INFORMATION	**REPORT DISTRIBUTION** (email only is preferred)	**ADDITIONAL INSTRUCTIONS**
Report Level: ☑ I/II ☐ III ☐ IV	☐ Hardcopy	EPA method 8290 D/F per Whitney to Kathy, 2/24/21
☐ EDD: ☑ FAL Basic ☐ Geotracker ☐ Other: ☐ Custom: Contact FAL	☐ CD (.pdf including EDDs if requested)	
☐ California State Drinking Water Form	☑ Email (.pdf including EDDs if requested)	
System #: Source #:		
Sampler: Employer:		

	Sample ID	Date Collected	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/9A	EPA 23/23A	EPA 1668	FAL 15	Other	Remarks
1	SW-1	02/18/2021	1515	SW	2											
2	SW-2	02/18/2021	1530	SW	2											
3	SW-3	02/18/2021	1543	SW	2											
4	SW-4	02/18/2021	1503	SW	2											
5	SW-5	02/18/2021	1550	SW	2											
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

****CONGENERS**	****TEQ**
☐ 2,3,7,8-TCDD only	☐ 1998 WHO
☐ 2,3,7,8-TCDD/F only	☑ 2005 WHO
☑ PCDD/F (Cl_4-Cl_8)	☐ Other

Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	**Date**	**Time**	**Received by:** (Signature and Printed Name)	**Date**	**Time**
Whitney Brown WB	2/22/21	0945	Kathy Ippp KIPP	2/24/21	1125

Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed.
FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

White Copy – Report Yellow Copy – Laboratory Pink Copy - Originator

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **13606**

Client:	SHN Engineering
Client Project ID:	020189.050
Date Received:	02/24/2021
Time Received:	11:25 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	5
Duplicates:	5
Storage Location:	R-4

Method of Delivery:	Golden State Overnight
Tracking Number:	552071963, 552071976
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Blue Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	No
Test aqueous sample for residual Chlorine	Yes
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	Between 4 and 9
Anomalies or additional comments:	

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Chain of Custody
Frontier Analytical Laboratory
13606-001-SA
Client ID: SW-1
Storage: R-4
(01 of 02)
13606-002-SA
Client ID: SW-2
Storage: R-4
(01 of 02)
13606-003-SA
Client ID: SW-3
Storage: R-4
(01 of 02)
13606-004-SA
Client ID: SW-4
Storage: R-4
(01 of 02)
13606-005-SA
Client ID: SW-5
Storage: R-4
(01 of 02)
2021/02/24

Groundwater Water Quality Objectives for Cleanup Projects in the North Coast Region - Dioxins/Furans

Constituent	Water Quality Objective
2,3,7,8-Tetrachlorodibenzo-p-dioxin equivalents (2,3,7,8-TCDD TEQ)	0.05 pg/L[1]

The concentration of each compound below should be multiplied by its specific toxicity equivalency factor, and the sum of the products (referred to as toxicity equivalents or TEQ) compared to the 2,3,7,8-TCDD equivalents water quality objective.

The analytical method used should achieve reporting limits for the lower-chlorinated dioxins and furans on the order of 1 pg/L or lower.

Compound	WHO 2005 Toxicity Equivalency Factor[2]
Chlorinated dibenzo-p-dioxins	
2,3,7,8-TCDD	1
1,2,3,7,8-PeCDD	1
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.0003
Chlorinated dibenzofurans	
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.03
2,3,4,7,8-PeCDF	0.3
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.0003

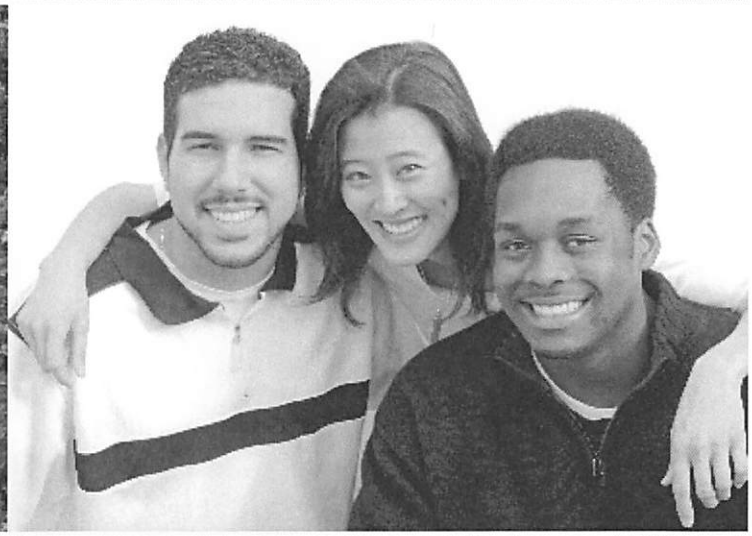
[1]California Public Health Goal in Drinking Water (Office of Environmental Health Hazard Assessment), applied to the GROUNDWATER TOXICITY water quality objective in the Basin Plan.

[2]Van den Berg *et al*: The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

EPA/100/R 10/005 | December 2010
www.epa.gov/osa

United States
Environmental Protection
Agency

Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin and Dioxin-Like Compounds



Office of the Science Advisor
Risk Assessment Forum

INTRODUCTION

This document describes the U.S. Environmental Protection Agency's (EPA's) updated approach for evaluating the human health risks from exposures to environmental media containing 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) and dioxin-like compounds (DLCs). TCDD and DLCs, including polychlorinated dibenzo-*p*-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and polychlorinated biphenyls (PCBs), are structurally and toxicologically related halogenated dicyclic aromatic hydrocarbons.[1]

EPA's chemical mixtures guidelines and guidance documents (U.S. EPA, 1986, 2000) call for the use of whole mixture data or data on a sufficiently similar mixture as preferred risk assessment methods. However, when data are not sufficient to apply these methods, the EPA also recommends component-based approaches. In such situations, the EPA has recommended use of the Toxicity Equivalence Factor (TEF) Methodology and the World Health Organization's (WHO's) TEFs to evaluate the risks associated with exposure to mixtures of TCDD and DLCs for human health (U.S. EPA, 1987, 1989, 2003) and ecological risk assessments (U.S. EPA, 2008). The WHO has used a process based on consensus judgment of scientific expert panels to develop TEFs for mammals, birds, and fish and has re-evaluated them on a schedule of approximately every 5 years (Ahlborg et al., 1994; van den Berg et al., 1998, 2006; also see WHO's Web site for the dioxin TEFs, available at: http://www.who.int/ipcs/assessment/tef_update/en/). After evaluating the empirical data on TCDD and some DLCs, WHO reconfirmed that the combined effects of these compounds generally are consistent with dose additivity, a key underlying assumption of the TEF methodology (van den Berg et al., 2006). In this document, the EPA is updating its human health approach by adopting the mammalian TEFs for DLCs recommended in the WHO's 2005 reevaluation of TEFs for human exposures to DLCs (van den Berg et al., 2006). EPA Program Offices and Regions have historically used TEF values in their risk assessments; this document recommends the 2005 WHO consensus TEFs, but does not address specific risk assessment applications of TEFs.

[1]For further information on the chemical structures of these compounds, see U.S. EPA (2003, 2008).

CONCLUSIONS

When whole mixture data or data on a sufficiently similar mixture are not available for DLC exposures, the EPA recommends use of the consensus mammalian TEF values from van den Berg et al. (2006) in the assessment of human health risks posed by exposures to mixtures of TCDD and DLCs (see Table 2), using TCDD as the index chemical. EPA Program Offices and Regions have historically used TEF values in their risk assessments; this document recommends the 2005 WHO consensus TEFs, but does not address specific risk assessment applications of TEFs. Further, while ideally a full quantitative uncertainty analysis is desirable, currently available ReP data that could be used to characterize the distributions of the TEFs are not suitable for use in simulation procedures that are typically undertaken. Because limitations in both the underlying ReP data and in the ability to statistically analyze them preclude conduct of a full quantitative uncertainty analysis of the TEQs, the EPA recommends that conduct of a sensitivity analysis be considered when using TEFs in major risk assessments, as determined by EPA Program Offices or Regions. In conducting a TEF-based risk assessment the EPA suggests addressing the key risk characterization recommendations that have been discussed in this document and are summarized in Table 5. The EPA will update all of these recommendations in the future based on the evaluation of new toxicity data for the DLCs, updates to the ReP database including statistical summaries of RePs for individual DLCs, and the results of new consensus processes undertaken to update the TEF approach.

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
700 Heinz Avenue
Berkeley, California 94710-2721

Jared Blumenfeld
Secretary for
Environmental Protection

Gavin Newsom
Governor

May 6, 2021

Mr. Patrick Murphy
Humboldt Health Care LLC
45 Ericson Court
Arcata, California 95519

Dear Mr. Murphy:

The Department of Toxic Substances Control has reviewed the Site Investigation Workplan (Workplan), dated April 9, 2021, for the former McNord Lumber Company site located at 1610 Glendale Drive, McKinleyville, California (Site), and prepared by Freshwater Environmental Services.

The Workplan documents proposed sampling to corroborate the results of the 2003 Winzler and Kelly Phase II Investigation (2003 Investigation) as well as to determine whether historic lumber mill activities have contributed to contamination of soil. The workplan proposes collecting a total of five soil samples and a single grab groundwater sample and analyzing for pentachlorophenol and tetrachlorophenol in soil and dissolved metals in groundwater.

Comments and Recommendations

1. The Workplan states that groundwater will only be analyzed for dissolved metals using EPA Method 200.7. DTSC recommends that groundwater be analyzed for pentachlorophenol, tetrachlorophenol, and dioxins as well given the Site's proximity to the former McNamara and Peepe Lumber Mill. While the 2003 Investigation had only a single detection of pentachlorophenol at a concentration less than the California MCL (0.49 µg/L compared to the MCL of 1 µg/L), this sampling data is 18 years old and it would be beneficial to confirm this result.

2. It is unclear from the text how many total soil samples will be collected. The Purpose and Proposed Scope of Work section implies that 5 total soil samples will be collected, but the Boring Completion and Investigation Derived Waste section states that there are only 4 soil samples. DTSC recommends that a table be added to the Workplan that contains the following: the preliminary sample IDs (e.g. B-1), what the samples will be analyzed for and the method, and the

general basis for the sampling location.

3. Physiography and Hydrogeology, Page 2: The text references a north-adjacent property. Please clarify if this is the McNamara and Peepe site.

4. Physiography and Hydrogeology, Page 2: The text references a former log pond area. Please include this in the Figures.

5. Summary of Previous Investigation Activities, second paragraph (Page 2): The text states the volatile organic compounds (VOCs) and metals in soil were detected at concentrations lower than the commercial/industrial screening levels published by DTSC. The concentrations of metals were also within background concentrations published by the United States Geological Survey. Please include the concentrations of the VOCs and metals detected as well as the screening levels and background concentrations referenced here in the text.

6. Summary of Previous Investigation Activities, third paragraph (Page 2): The text hypothesizes that the elevated metals concentrations may be due to the samples having been unfiltered and preserved with nitric acid. While this may be true at least in part, the concentrations are elevated even for unfiltered, preserved samples. It is more accurate for the text to state "The concentrations of metals in the groundwater samples ~~appear~~ may be elevated ~~probably~~ because the samples were not filtered prior to..."

7. Purpose and Proposed Scope of Work, Page 3: The plan does not propose any groundwater samples to be collected for the analysis of pentachlorophenol (PCP) and tetrachlorophenol (TCP). These compounds were analyzed for in the 2003 Phase 2 assessment, with one detection of PCP at about half the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL). Considering this fact, as well as a water supply source located about 350 feet to the west, the lack of current groundwater data for these compounds represents a data gap. To address this data gap, it is recommended that groundwater samples be collected from at least three locations and analyzed for PCP and TCP.

8. Purpose and Proposed Scope of Work, Page 3: The plan proposes to analyze only one sample for dissolved metals. Whatever the reason for the high values, the reported concentrations of chromium, lead, and nickel in Site groundwater samples were considerably greater than the ESLs. Considering this fact, as well as the proximity to a water supply source, it is important to collect multiple samples to verify the current concentrations of dissolved metals in groundwater. Additionally, the former conical burner at the Site represents a potential source for metal-bearing ash that may still reside at the Site. Thus, dissolved metal concentrations in groundwater represent a data gap that should be addressed by the collection of at least three groundwater samples as part of the proposed investigation. Please also see Comment 8, below, regarding the location of proposed samples on the figures.

9. Purpose and Proposed Scope of Work, Page 3: The plan proposes only one soil sample and no groundwater samples for analysis of dioxins and furans. While we concur that the location of the former conical burner is appropriate for one sample, the potential presence of dioxins and furans is currently a data gap in light of the history of wood-products combustion at the Site along with the presence of chlorinated materials. Consequently, at least three discrete soil samples are warranted for analysis of these compounds. Also, three groundwater samples are warranted for analysis of dioxins and furans for similar reasons.

10. Soil and Groundwater Sample Analysis, Page 4: The text does not indicate which laboratory will be responsible for PCP and TCP analyses. The Work Plan should be revised to include the proposed analytical laboratory for these analyses. Reporting limits for PCP and TCP in groundwater should be included as well.

11. Soil and Groundwater Sample Analysis, Page 4: The text references DHS-Certified laboratories. DHS no longer exists, and the State Water Resources Control Board's Environmental Laboratory Accreditation Program (ELAP) now certifies laboratories. This reference should be changed to read as ELAP-certified laboratories.

12. Soil Reporting Limits, Page 4: Please provide the units for the tabulated laboratory reporting limits for dioxins and furans.

13. Figures 2 and 3: The blue hatched pattern indicates a potential retention area with dimensions of about 40 feet by 400 feet. It is recommended that the Work Plan text be revised to discuss this potential retention area and what it may have been used for in the past. Additionally, immediately south of the potential retention area would be an appropriate downgradient sample location for soil and groundwater).

If you have any questions regarding this letter, please feel free to call me at (510) 540-3881 or email me at Nicole.Yuen@dtsc.ca.gov.

Sincerely,

Nicole Yuen Digitally signed by Nicole Yuen Date: 2021.05.06 14:51:15 -07'00'

Nicole Yuen
Project Manager
Site Mitigation and Restoration Program – Berkeley Office
Department of Toxic Substances Control

Chris Harris

From: Eto, Stephen@CalRecycle <Stephen.Eto@calrecycle.ca.gov>
Sent: Wednesday, June 2, 2021 9:37 AM
To: Chris Harris
Cc: 'ajager'
Subject: RE: Soil Contaminants

Chris Harris,
At CalRecycle, we test for the CAM 17 to detect pollutants that remain after cleanup work. CAM 17 refers to a list of heavy metals described in the California Administrative Manual or California Code of Regulations. It is also referred to as Title 22 metals from CCR Title XXII. The list includes Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Silver (Ag), Thallium (Tl), Vanadium (V) and Zinc (Zn).

The metals exceedances in Trinity County have been arsenic, lead, and cobalt, generally in that order of frequency. All three metals are associated with ash as studies from previous fires have shown.

In terms of metals that are naturally occurring, pretty much all of them are detected in almost any California soil, except for selenium and silver. Homes near Ruth Lake are all within the Kjf geologic unit, which is no exception. Arsenic concentrations in background samples there range from 2 to 12 mg/kg, lead from 4 to 26 mg/kg, and cobalt from 7 to 28 mg/kg, just to give you an idea of the ranges of concentrations we see naturally.

Here is what the cleanup table looks like for Ruth Lake. Two tables because of two different types of soil analysis (wet at the beginning, then dry-weight corrected after we started.)

Stephen Eto
CalRecycle
Stephen Eto
North Branch, Debris Group Supervisor
(Cell): (916) 693-7429|✉: stephen.eto@calrecycle.ca.gov

Table 8: Group B Trinity County - KJf Unit Cleanup Goals
Northern Branch Fires

Wet-Weight Reported Confirmation Sample Results

Metal	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Regulatory Screening Level [a,b]	31	0.11	9,999	16	71	2,499	23	2,499	80	1.0	390	820	99	390	5.0	390	4,999
Moisture Adjusted Regulatory Screening Level [c]	26	0.093	8,500	14	60	2,100	19	2,100	68	0.85	330	690	84	330	4.2	330	4,200
Background [d]	0.53	11	230	0.54	0.12	180	27	77	14	0.13	1.5	270	2.5	0.068	0.087	140	99
Cleanup Goal [e]	26	11	8,500	14	60	2,100	27	2,100	68	0.85	330	690	84	330	4.2	330	4,200

Dry-Weight Reported Confirmation Sample Results

Metal	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Regulatory Screening Level [a,b]	31	0.11	9,999	16	71	2,499	23	2,499	80	1.0	390	820	99	390	5.0	390	4,999
Background [d]	0.53	11	230	0.54	0.12	180	27	77	14	0.13	1.5	270	2.5	0.068	0.087	140	99
Moisture Adjusted Background [f]	0.62	13	270	0.63	0.14	210	32	89	16	0.15	1.8	320	2.9	0.080	0.10	160	120
Cleanup Goal [e]	31	13	9,999	16	71	2,499	32	2,499	80	1.0	390	820	99	390	5.0	390	4,999

Notes:

The 95th lower confidence level of 14.4% moisture content was applied to the background levels, and the upper 95th confidence level of 15.4% moisture content was applied to the regulatory levels. For Trinity County, measured moisture contents ranged from 11% to 25%.

Confirmation sample results reported by laboratories without moisture corrections should be compared to the Wet-Weight Reported table. Confirmation sample results reported by laboratories with moisture corrections should be compared to the Dry-Weight Reported table.

All units are milligrams per kilogram (mg/kg).

Cleanup goals reported to two significant figures, except as noted.

a The regulatory screening level is the lowest of the California Department of Toxic Substances Control Screening Levels, U.S. Environmental Protection Agency Regional Screening Levels (RSL), and the California Code of Regulations, Title 22, Chapter 11, Article 3 Total Threshold Limit Concentration (TTLC). The value for thallium is the California Human Health Screening Level of 5.0 mg/kg because the practical quantitation limit of thallium may be greater than the risk-based screening levels.

b TTLCs are "less than" limits, so each TTLC screen was set at 1 mg/kg below the limit.

c Regulatory levels are adjusted by subtracting a 95 Upper Confidence Level of the mean moisture content.

d Background levels calculated based on 95th upper tolerance level with 95 percent coverage of data.

e The cleanup goal is the regulatory screening level unless the background concentration is higher than the screening level. If the background concentration is higher than the screening level, the background concentration is selected as the cleanup goal.

f Background levels are adjusted by adding a 95 Lower Confidence Level of the mean moisture content.

August Complex cleanup around Ruth Lake progressing, water district reports

District concerned about debris in reservoir that provides water to 88K in Humboldt County

The Humboldt Bay Municipal Water District viewed photos of the wildfire damage to lots owned by the district that are leased around Ruth Lake. About 70 lots were “burned to the ground” by the August Complex fire last year, spurring a disaster declaration by the district. About one-third of the lots have been cleaned up, general manager John Friedenbach estimated. (Screenshot)

By **RUTH SCHNEIDER** Eureka Times-Standard
May 24, 2021

The August Complex fire in 2020 “burned to the ground” about 70 lots leased by the Humboldt Bay Municipal Water District, according to the district’s general manager.

During last week’s board meeting, the directors of the district looked at photos of gutted vehicles and other damage to the district’s property around Ruth Lake.

“They’re maybe a third of the way through the leased lot properties and they’ve got a ways to go,” HBMWD general manager John Friedenbach told the Times-Standard on Monday morning.

He said the California Office of Emergency Services and the Federal Emergency Management Agency are coordinating efforts to clean up individual lots. Although there were some bureaucratic hurdles because the lots are owned by the district, the agencies are cleaning up the lots at no cost to the residents.

“As far as an ultimate timeline, they haven’t given us that yet, but at the pace that they’re going, I’m going to take a guess that sometime in July they’ll be done,” Friedenbach said. “They’re also doing private properties that are up around the lake as well.”

The August Complex fire, believed to be the largest fire in California’s modern history. was sparked by lighting Aug. 16-17, 2020, and torched more than one million acres of land before it was finally extinguished in November 2020. Humboldt Bay Municipal Water District’s board declared a disaster at Ruth Lake late last year, allowing for state and federal assistance to be available to the district for clean-up efforts.

In addition to the leased lots, the district owns one building that is used by an employee who operates the dam at Ruth Lake.

“His residence was spared from the fire,” Friedenbach said. “But there was an outbuilding, the water system and fencing around the property were destroyed by the fire, so there was some minimal damage to direct district property in our facility there. But compared to other people, who lost everything, we’re counting our blessings in that the fire did not get down to the dam structure.”

Friedenbach noted that a concern for the district is debris from the fire getting into the lake.

“The big concern that we have for burned trees in that watershed is burned trees typically die, they fall down. If there’s enough rain, they can make it into the drainage system, into the river, ultimately, to the lake, and potentially cause a problem in our spillway, on the dam,” he said. “So it’s a major safety concern. That’s why we’re acting so quickly on the salvage logging to get all of those potential dying trees out.”

With a new, predicted-to-be-disastrous fire season looming, the district is also working to create defensible space around its leased lots.

One area that is not a major concern, at least right now for Ruth Lake, is the drought.

“We’re at 99% capacity at this point in time,” Friedenbach said. “And so in terms of the drought, we’re basically unaffected.”

But he added that discussion is ongoing.

“You’re going to hear more about that at the board of supervisors tomorrow when they talk about the drought,” he said.

Humboldt Bay Municipal Water District

To: Board of Directors

From: John Friedenbach

Date: June 10, 2021

Subject: Cal Fire Forest Health Grant

****

As the Board is aware, nearly 2,000 acres of District property were burned in the 2020 August Complex fires around Ruth Lake. Clean up efforts and salvage logging are nearly complete. The next step is to focus on reforestation to maintain high water quality. Staff will be seeking grant funding to accomplish this, with the first being an application to the CalFire/Climate Change Investments (CCI) Forest Health Grant.

For this grant application, the purpose of our proposed activities is to restore forested landscapes in severely burned areas where tree regeneration is not naturally viable. Critically, as the source of municipal drinking water for much of the Humboldt Bay region, preservation of high-water quality standards is our top priority. Erosion and runoff threaten not only the water quality, but the integrity of the dam and reservoir capacity as well. Erosion creates additional loss of trees and brush that can impact and overly stress the log boom, potentially causing a blockage of the spillway. Should that occur, water could overtop the dam degrading the dam's structural integrity and lead to catastrophic inundation to all downstream communities along the Mad River, including many low-income and tribal lands.

Although preservation of water supply is the HBMWD priority, the surrounding communities to Ruth Lake and all along the Mad River benefit greatly from the restoration of this forest and riparian habitat. In addition to recreation, jobs are created and supported through this project. Professionals such as RPFs, salvage loggers, building trades as well as income from fishing, hunting, recreation, gas station and restaurant owners will all be affected.

Project goals and activities will be achieved through strong collaborative partnerships. The two core implementing partners for this proposal, HBMWD and Watershed Research and Training Center (WRTC), have joined together and with federal and private land managers in the two counties, facilitating community engagement in land stewardship and planning, and implementing land management projects with their own local crews of labor, planners, and technical experts.

Our projects span landowner and jurisdictional boundaries to optimize landscape level forest health restoration effectiveness. We have a strong focus on local workforce development and utilization to enhance local socio-economic benefits and reinforce community involvement in restoration while utilizing prescribed fire where possible to optimize efficiency and ecological benefits.

There are three main categories of work to be performed: **Plan A** (HBMWD property), **Plan B** (comprised of the two private landowners (Meyer and Albee) that have adjacent parcels to the HBMWD property and the Mad River headwaters), and **Plan C** (comprised of the work being done by the WRTC, on behalf of the United States Forest Service (USFS) property).

Plan A: As the District has nearly completed the dead and dying salvage timber operations and hazardous material cleanup on our 1,000 acres that burned as a result of the August Complex fires, we will be ready to begin reforestation efforts in the Fall of 2021. Labor composed of District staff, professional planting crews and California Conservation Corps (CCC) will be utilized for planting seedlings during a wet season three-month planting season through the life of the grant.

Pest management will be accomplished with hand tool treatment to remove invasive plants. Site preparation and continued follow-up maintenance of the sites after initial planting, including replanting of mortality and competing vegetation hand treatments and prescribed fire tools as described below will continue through the grant cycle and beyond.

Plan B: The two private landowners, (Meyer and Albee) own approximately 1,600 acres adjacent to District property and the Mad River headwaters. A total of 1,200 acres will be rehabilitated in Plan B. Year 1 would utilize machine treatment and CCC crews to prep the property for replanting; and seedlings will be ordered. In Year 2 additional land will be cleared and planting of seedlings will begin. Preparation of the soil and continued follow-up maintenance of the sites after initial planting, including replanting of mortality and brush control, will utilize prescribed fire tools such as hand piles, as described below.

Plan C: There are approximately 2,600 acres of public land adjacent to District property which are managed and owned by the USFS that were burned in the wildfires. The USFS has an existing partnership with WRTC to perform reforestation activities on USFS land. Their partnership in this grant would be utilized to grow 150,000 seedlings for replanting 750 acres of USFS land adjacent to the District property, thus increasing the forest restoration footprint of our combined activities.

Approximately 600,000 seedlings will be planted on 2,981 acres within the Mad River headwaters and Ruth Lake areas. In addition, 2,981acres of biomass treatments will be accomplished following the 2020 August Complex wildfires. Finally, 750 acres of reforestation efforts will be conducted on USFS land. Browse protection (Breath Easy Bud Caps) will be installed on the seedlings at the time of planting as the recent burn has depleted forage for local wildlife and the fresh planted seedlings will be targeted as a feed source. Cedar stakes will provide additional support to the seedlings.

Approximately 150,000 seedlings, valued at $75,000 are being provided to HBMWD by the American Forest Foundation and used as an in-kind match by HBMWD.

Prescribed fire: Our prescribed fire objectives include; reducing the risk of catastrophic wildfire, stimulating the growth of woody shrubs, oaks, and conifers, increasing water yields, meadow and oak restoration, encouraging the return of native grasses by reducing non-natives invasive plants, reducing conifer encroachment into the oak woodland and grassland areas.

All prescribed burning will be completed under prescribed fire burn plans with a Smoke Management Plan for the North Coast Unified Air Quality Management District and local CAL FIRE/USFS unit permits. An air-curtain incinerator will be used to manage post- planting maintenance of undergrowth and any invasive species identified in Years 1-5.

CEQA compliance has begun, but is not yet completed for these project activities. We are confident that they will be completed within 12 months of grant award, as required. A Cal Fire Emergency Timber Harvest Plan is in place for much of the proposed project, including confidential archeological reports (reference 1-21EM-00146-TRI), and expires April, 2022. Salvage logging efforts will be completed prior to that date, but additional CEQA documents will be completed prior to expiration.

Registered Professional Foresters (RPF) are on retainer for Plans A, B, and C. Smoke Management Plans and Prescribed Fire Permits will be applied for in 2021. The USFS (Weaverville office) has completed a Conservation Stewardship Program for partner property, Albee. A RPF has completed a reforestation plan for partner property, Meyer.
NEPA permitting has been partially completed for Plan C (“reference Three Forks CE”) and is waiting for final sign off for the August Complex EA (submitted) for growing seedlings and planting on the 750 acres of 2,600 burned.

Letters of support for the District's grant project were offered by the following:

- Senator Mike McGuire
- NOAA
- North Coast Unified Air Quality (NCUAQMD)
- The Mad River Alliance
- Friends of the Dunes
- California Conservation Corps (CCC)
- Redwood Community Energy Authority (RCEA)
- City of Arcata
- City of Eureka
- McKinleyville CSD
- Humboldt CSD
- Ruth Lake CSD

The total funding request was for just under $5,000,000. Plan A will utilize approximately $3.5 million, Plan B will utilize approximately $1.2 million, and Plan C is a little more than $750,000. Indirect costs of 12% (less equipment charges) are included. No match is required from the District, although, one in-kind match has been obtained.

This project is needed to address a range of threats across our communities and landscape. Reforestation will act to increase carbon sequestration and ensure a continuous carbon sink in these working forests. As the primary funder, Climate Change Investments (CCI) requires Greenhouse Gas (GHG) estimates for the project. This grant project is anticipated to net 1,182,508 MT CO2e (metric tons carbon dioxide equivalent).

Forester, Mark Andre, and his associates at BBW, were indispensable in preparing the calculations for GHG summaries, calculating reforestation yield projections, sourcing supplies and general hand holding. His consulting time was paid for from the North Coast Resource Partnership forestry grant received by the District.

There is no anticipated date at this time for when the District can expect to be notified, but staff will update the Board as appropriate.

New Business

Closed Session

Public Hearing

Memo To: Board of Directors

From: Sherrie Sobol and Chris Harris

Date: June 3, 2021

Subject: 2020 Urban Water Management Plan and Public Hearing

Background

In 1983, the California Legislature enacted the Urban Water Management Planning Act. The law requires urban water suppliers providing municipal water to more than 3,000 customers or serving more than 3,000 acre-feet annually, to adopt an Urban Water Management Plan (UWMP) every five years, demonstrating water supply reliability in normal, single dry and multiple dry years.

The UWMP supports long-term planning to ensure adequate water supplies are available to meet existing and future water demands. The 2020 UWMP must be adopted and submitted to DWR within thirty days of adoption, no later than July 1, 2021.

New Requirements for our 2020 UWMP include:

- Five consecutive dry-year water reliability assessment (previously was only three years)
- Drought Risk Assessment
- Seismic Risk (must be specifically addressed and can refer to County Hazard Mitigation Plan)

It is important to have an approved UWMP not only because it is a legislative requirement, but also for Grant or Loan Eligibility. In order for our District to be eligible for any grant or loan administered by DWR, we must have a current approved UWMP on file. These include SRF loans, Prop 1 and Prop 84 grants. It may also be a requirement for additional State funding.

Current Status

The District published a Notice of Public Hearing for the 2020 UWMP in the Times-Standard that ran twice. A notification was also sent to the District's Municipal Customers and agencies with land-use planning authority within the District boundaries. The Public Hearing is time-set for 1:30 pm at the Regular Board meeting on June 10, 2021.

The Draft UWMP can be viewed on our website at: https://www.hbmwd.com/district-regulatory-plans

Recommendation

Staff recommends the Board conduct the Public Hearing and adopt Resolution 2021-11 to adopt the District's 2020 Urban Water Management Plan.

Resolution No. 2021-11

Resolution of the Humboldt Bay Municipal Water District Board of Directors Adopting the District's 2020 Urban Water Management Plan

Whereas, the Urban Water Management Planning Act of 1983, as amended (California Water Code Division 6, Part 2.6) requires the preparation and submission to the California Department of Water Resources of an Urban Water Management Plan by all water suppliers that qualify as urban water suppliers as defined by the act; and

Whereas, the Humboldt Bay Municipal Water District qualifies as an urban water supplier as defined by the Urban Water Management Planning Act; and

Whereas, the Urban Water Management Planning Act as amended requires retail urban water suppliers to address components of the Water Conservation Bill of 2009 (SBX7-7), which set an overall goal of reducing the state's per capita urban water use by 20% by December 31, 2020, for which the Humboldt Bay Municipal Water District must provide support; and

Whereas, the Urban Water Management Planning Act requires the submission of Urban Water Management Plans in years ending in 5 and 0; and

Whereas, the Humboldt Bay Municipal Water District last prepared and submitted an Urban Water Management Plan in 2015; and

Whereas, the 2020 Urban Water Management Plan must be adopted by July 1, 2021, after public review and hearing, and filed with the Department of Water Resources within thirty days of adoption; and

Whereas, the Humboldt Bay Municipal Water District has therefore prepared and made available for public review a draft of the Urban Water Management Plan, and a properly noticed public meeting regarding the Plan was held by the Board of Directors on June 10, 2021.

Now therefore be it resolved, that the Directors of the Humboldt Bay Municipal Water District adopts the 2020 Urban Water Management Plan and authorizes its submission to the California Department of Water Resources.

PASSED and ADOPTED at a Regular Meeting of the Board of Directors of the Humboldt Bay Municipal Water District this 10th day of June, 2021 by the following roll call vote:

AYES:

NOES:

ABSENT:

Attest:

Sheri Woo, Board President

J. Bruce Rupp, Board Secretary/Treasurer

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Agenda for Special Joint Meeting of
HBMWD Board of Directors with the
Ruth Lake Community Services District Board of Directors
July 9, 2021
1:00 pm

6:00 am: Convene at Eureka office to travel to Ruth Lake
8:30 - 12:00 pm: Driving Tour-lakeshore inspections
12:00 pm: Lunch at HBMWD District Headquarters with RLCSD and Guests

JOINT BOARD MEETING– 1:00 p.m.

Meeting of the HBMWD and RLCSD Board of Directors to discuss issues or events regarding Ruth Lake and the buffer strip of mutual interest

1. **Introductions/Roll Call**
2. **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 given the opportunity to address items that are on the agenda at the time the Board takes up that item.

3. **Updates from Guests:**
   a. Trinity County - 5th District Supervisor and Staff
   b. US Forest Service
   c. Trinity County Volunteer Fire Department and /or STAR
   d. Trinity County Sheriff/OES
   e. Ruth Lake Leaseholders Association
   f. Any other guests

4. **HBMWD Topics**
   4.1 Aquatic Invasive Species:
      1. Dept. of Boating and Waterways Quagga Prevention Grants
      2. Any issues or areas of concern – discuss
   4.2 Disaster Recovery
   4.3 Law Enforcement on Ruth Lake
   4.4 Cannabis Cultivation in the Mad River Watershed - issues to address

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Agenda for Special Joint Meeting of
HBMWD Board of Directors with the
Ruth Lake Community Services District Board of Directors
July 9, 2021
1:00 pm

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5. Ruth Lake CSD Topics

5.1 Lease Lots: area of concern- discuss

5.2 Discussion of a long-term maintenance plan for the Quagga Mussel Prevention Plan

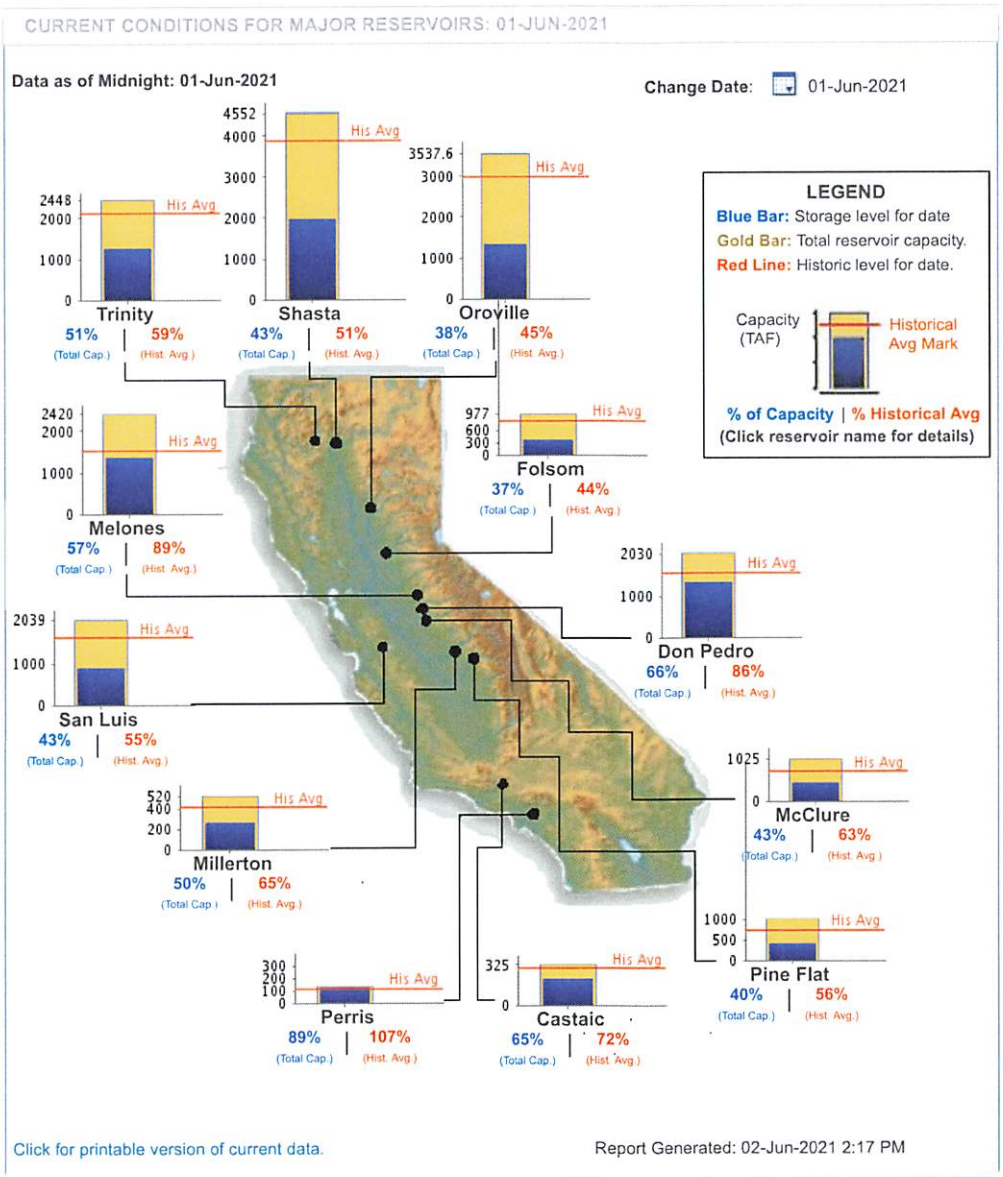
ADJOURNMENT

At 1:30 pm there will be a staff-level meeting to discuss:

a) HBMWD's Emergency Action Plan (EAP) for Matthews Dam: Face-to-Face meeting with HBMWD, RLCSD, USFS, Trinity County Sheriff/OES, STAR and Southern Trinity Volunteer Fire Department staff to discuss the EAP, especially notification flow charts

(Posted and mailed July 2 ,2021

California Data Exchange Center - Reservoirs



Humboldt County supes call for drought task force

By **ISABELLA VANDERHEIDEN** | Times-Standard
PUBLISHED: May 25, 2021

After nearly three hours of discussion surrounding the statewide drought and looming fire danger, the Humboldt County Board of Supervisors Tuesday unanimously directed staff to form a drought task force and to investigate the creation of a position to address climate resiliency.

Third District Supervisor Mike Wilson began the discussion by describing the drought as a symptom of climate change and "deeper of an issue than we have seen before."

"It's just the beginning and we need to have this discussion; I believe we're going to have it more as we move forward," he said. "We seem to be coming out of one crisis and into the next."

Humboldt County is experiencing moderate to severe drought conditions which will only get worse as spring folds into summer, said National Weather Service hydrologist Kathleen Santos.

"Just looking at Eureka, we're at 60% of normal rainfall for the water year," Santos said, noting the water year runs from October through September. "… Even though we're in the middle of our water year right now, we already passed through the wintertime and we're entering into our dry months, and we're well below normal. The rest of the county is ranging (from) 50% to 70% of normal rainfall."

The damage has already been done, Santos said.

"We saw two back-to-back winters (with) below normal rainfall and we're not going to see relief until our next winter when we could see our, hopefully, normal rainfall but even if we see normal rainfall next winter, that doesn't mean we're out of the woods yet," she said. "It looks like it could get worse before it gets better."

Cal Fire Humboldt-Del Norte Unit Chief Kurt McCray voiced concern for the number of dry fuels on the landscape combined with minimal soil moisture.

"With all of that and the recognition across the state with our condition, Cal Fire has advanced staffing of equipment and facilities and on June 1, all equipment, aircraft and facilities will be fully staffed at peak staffing," he said. "… What I'm seeing across our county and the North Coast is we're probably four to six weeks ahead of burning conditions and while that's not a primary concern in the next 60, maybe even 90 days, it's a very significant concern when we reach out to looking at possibly five to six months of no precipitation and the exponential effects that has on fuel moistures and fire behavior and intensity."

Now more than ever, everyone plays a part in mitigating wildfire, McCray said.

“That is not just government and emergency services, that is everyone in our communities to be diligent and very careful and fire safe with their activities,” he said. “The creation and maintenance of defensible space is essential to our abilities to help defend structures, property and wildland.”

River flows

Though Humboldt County is not experiencing extreme or exceptional drought conditions, Yurok Tribal Chairman Joseph L. James noted effects occurring in other regions often play out downstream.

“The Klamath River and the Basin are in a state of emergency due to the drought. Drought is nothing new to the area, something that we had to deal with, unfortunately, continue to deal with but we’re having as we speak small juvenile salmon dying,” James said, urging supervisors to make an emergency declaration. “… We want to take care of the river, (the river) takes care of us. We want to make sure we’re doing everything we can, in short-term and long-term solutions.”

Craig Tucker, a natural resources consultant for the Karuk Tribe, echoed James’ call and reiterated that “2021 is not a run-of-the-mill drought year.”

“The two-year period from April of 2019 to March of 2021 has been as dry as any two-year period since 1900. (Though) the epic drought years of 1976 to 1977 and 2014 to 2015 were drier…only three two-year periods in the past 120 (years) have been hotter,” Tucker said. “What I’m going to suggest is what a lot of other experts are suggesting is that this is something more significant than a drought in California. Nine out of the 11 hottest years on record in three out of the five driest years on record have occurred since 2011.”

“What we’re living here is not really a drought but a new normal being driven by climate change,” he added.

Although Ruth Lake is currently at 98% capacity, Chris Harris, business manager for the Humboldt Bay Municipal Water District, said flows from the Mad River that feed into the reservoir “are not there.”

“In light of this, the district has moved into a summer operation mode where we have reduced our flows from the dam with the intent to conserve as much water as possible in the reservoir,” she said.

Water for cannabis

Humboldt County Planning and Building Director John Ford spoke to water use in relation to cannabis grows and the possibility of restricting cultivation permits.

“Before just moving to a situation where there is a desire to see a stop to processing applications or to impose water-use restrictions that this does affect, just like agriculture, this affects people’s livelihoods and a lot of people have invested greatly into these permits,” Ford said. “The planning and building department has been exploring alternative legal sources of water that could be made available to cultivators. Unfortunately, we have not been able to find one good clear path yet.”

Humboldt County emergency operations director, Ryan Derby, noted the “noticeable local impacts” attributed to drought conditions but told supervisors he did not feel an emergency proclamation was appropriate.

“I feel that the best tactic, and the tactic that my office is going to be taking, is more along preparedness and mitigation lines,” Derby said. “Looking at resulting emergencies from dry conditions like wildfire, looking at things like evacuation planning … I feel that there’s a lot more data collection and analysis of local impacts that needs to be done before we do issue a local emergency proclamation.”

Divided board

Following the slew of speakers, 5th District Supervisor Steve Madrone urged the board to take immediate action and declare an emergency declaration.

“I actually disagree with waiting on a proclamation. I really firmly believe that we need to pass a proclamation today,” Madrone said. “… This is not something that we should just be sitting around and talking about without taking some action. I want to speak strongly for passing that proclamation, I know there are pluses and minuses to doing that, but I just don’t think it’s okay to sit back and think because we have a 99% full reservoir that we’re okay.”

First District Supervisor Rex Bohn said he appreciated Madrone’s “passion for a proclamation” but criticized the implication that “the people of Humboldt County and especially our staff will stop sitting around and talking about it knowing full well they’ve been working on this for years.”

Wilson acknowledged that the topic is broad but said conditions will only become more extreme as summer approaches and urged the board to think about future implications.

“We haven’t even gotten into the hard conversations and discussions that we’re seeing to counties in the south, I mean it’s really serious,” he said.

If the board were to declare an emergency proclamation, county counsel Jefferson Billingsley said it would make more resources available from the state and federal government.

Derby said one of the main reasons he was against a proclamation is because the additional resources are not available and can be obtained through USDA SBA loans. He also suggested the formation of a drought task force.

Wilson cobbled together a motion directing staff to return to the board in four to six weeks on the establishment of a drought task force and to direct staff to investigate the creation of a climate and sustainability coordination position in the county.

After additional discussion and critiques from both Bohn and 2nd District Supervisor Michelle Bushnell to do more to include the agricultural community, Madrone, Bohn and Bushnell voted against the motion.

After the vote, Madrone explained that he had only voted no because he did not feel the four- to six-week timeline was sufficient and called for immediate action.

Despite 4th District Supervisor Virginia Bass' efforts to move the meeting along, Wilson volunteered to alter the motion which was eventually broken into two motions. The first, to direct staff to form a drought task force and to alert the community of serious drought conditions and conserve water. The second, to direct staff to investigate the creation of a new position to address climate resiliency.

Supervisors unanimously passed both motions in a 5-0 vote.

Isabella Vanderheiden can be reached at 707-441-0504.

LOST COAST OUTPOST

BY: HANK SIMS / 5/26/21

YESTERDAY in SUPES: A Bad Drought Year Coming, and What Should We Do About It?

This year's drought is shaping up to be very, very bad. Juvenile salmon in the Klamath River system are already starting to perish in "catastrophic" numbers, with low flows as the primary cause. It looks very likely that the Eel River will fail to reach the sea later this year, as last happened during the 2014 drought. The soil and the vegetation, especially in the inland areas, are parched, and the likelihood for wildfire is high. Some areas might have problems getting drinking water.

Pretty much everyone who spoke at yesterday's Humboldt County Board of Supervisors meeting – during which the board and the public heard from a parade of governmental agency representatives on the front lines of this problem – agreed to these basic statements of fact. What to do about those facts? That's another question, and one that was agreed to only vaguely, after about an hour and a half of somewhat chaotic deliberation.

Apart from that, there were two other major items on the Board of Supervisors' agenda. Supervisors and the public got a first look at a draft revision to the county's firearms ordinances, which would prohibit the shooting of firearms on most of the Samoa Peninsula and elsewhere near "heavily used recreation areas." And it brought to an end a fairly disastrous (and expensive) effort to outsource parts of its broken payroll system for county employees.

Our Dry Future

"What I'm going to suggest is what a lot of other experts are suggesting, is that this is something more significant than a drought," said Craig Tucker, a natural resources consultant for the Karuk Tribe, during the morning's public forum. "In California, nine out of the 11 hottest years on record, and three out of the five driest years on record, have occurred since 2011."

"So what I'm trying to say is the weather is changing, and this is a change that really has been predicted by climatologists for at least two decades. So what we're living, here, is not really a drought but a new normal that is being driven by climate change."

Tucker was one of the eight experts from local, tribal, state and federal agencies invited by Supervisor Mike Wilson to speak to the board about the coming dry year and beyond, with the intention of starting a conversation about what the county should be doing to prepare.

Though most Humboldt County residents are in no danger of running out of water, thanks to the vast untapped capacity of the Humboldt Bay Municipal Water District's operations on the Mad River, the same doesn't hold true for people *outside* the Eureka-Cutten-Arcata-McKinleyville population core. And that's leaving aside the devastating

impacts of the current drought on our natural systems, which will inevitably lead to wildfire and stress on fisheries.

Kathleen Zontos, a hydrologist with the National Weather Service in Eureka, kicked off the discussion with an overview of just how bad the current drought year is shaping up to be. Right now, she said, Eureka is at about 60 percent of normal rainfall in this "water year" – October to September. (That number ranges from 50 to 70 percent at different locations around the county.) That's on top of a dry year last year as well. Given that the bulk of our wet weather has already passed, that means we're already in drought.

"Weather-wise, the damage has already been done," she said.

Kurt McCray, chief of the Humboldt-Del Norte Cal Fire unit, said that his agency is preparing for the worst this year. The wildlands are full of dry, dead fuel, he said, and just as importantly the *soil* moisture level is currently very low. They'll be staffing up to full firefighting readiness on June 1 this year – about three weeks ahead of normal – and he urged people in the hills to be prepared, by maintaining defensible space around their homes and being prepared to evacuate.

"I want to leave something – a little bit of a trivial fact, but of very significant importance to me," McCray said. "At one point last fall, five of the six largest fires in recorded California history were burning at the same time in California. So the potential is there, and the conditions are far worse than they were at this time last year."

Joe James, chair of the Yurok Tribe, said that the Klamath River is already in a state of emergency – the tribe itself has issued a declaration, and so has Governor Newsom – and reiterated that juvenile salmon are experiencing a die-off right now. He urged everyone on the call to reach out to the state and federal government to sound the alarm.

Chris Harris of the Humboldt Bay Municipal Water District reiterated that Ruth Lake reservoir is at nearly full capacity, and there's little danger of running out. (But the district gets its water not only from behind the dam, she noted, but from various tributaries that flow into it. It sucks up water from its Ranney collectors on the banks of the Mad near Blue Lake.)

Harris told the board about a couple of initiatives her district is working on. One: They're looking to some of their excess capacity for environmental purposes – "in-stream flows," as she called them – to supplement river water for natural systems in the dry times. Secondly, she said, they're looking at developing loading stations for water delivery trucks to deliver to communities in need. These could only supply non-potable water, she said, and there are some questions about whether they would have enough scale to meet demand – trucking enough water to meet even a small community's regular demands would be an enormous, probably impossible, undertaking.

Three county employees wrapped up the testimony: Hank Seemann, the county's deputy director of public works; John Ford, its planning director; and Ryan Derby, the county's emergency operations manager.

And then the board got on to the sticky question about what to do about this grave state of affairs.

What to Do

The testimony from the experts lasted just about an hour. The amount of time supervisors deliberated on their testimony – taking public comment, asking questions of panelists, their staff and each other, proposing and voting on motions – took about double that amount of time.

One thing that loomed large during the discussion: Whether or not Humboldt County should itself declare a state of emergency in regard to the drought – if not now, then at some point in the near future.

Supervisor Madrone was all for immediate action. “I really firmly believe we need to pass a proclamation, like, today,” he said. “I want to advocate for getting that done sooner rather than later.” But Supervisor Bohn was strongly against such a move, at least at this point, citing the fact that the county is already operating under emergency declarations relating to homelessness and COVID. (Earlier, during his presentation to the board, emergency operations manager Ryan Derby warned that at this point any actions taken pursuant to a local declaration of emergency would have to be funded locally – that there aren’t any federal or state dollars available yet.)

Supervisor Bushnell, meanwhile, repeatedly expressed caution about taking any significant action at this moment, given, she said, that the board had not heard any testimony from the agricultural and cannabis communities about the subject. (During the public comment period, Bushnell’s appointee to the county’s planning commission, Thomas Mulder, railed against the speakers that kicked off the discussion: “I know you’re asking for people to be polite, but I feel that the way in which the presentation was structured was an attack on our rural property rights,” he said.)

There was much back and forth and some side discussion. What about the water impact of new “megagrows”? Most of the new permits being approved these days are small and preexisting operations, said Planning Director John Ford. (Though people calling in during the public comment period charged that those preexisting operations are growing in size.) What about groundwater resources in the Eel River Valley – wells and such – that are covered by the state’s Sustainable Groundwater Management Act? (Scientists are currently studying the relationship between those underground supplies and drought conditions on the surface, said Public Works Deputy Director Hank Seemann, and should have answers next year.)

One concrete proposal was offered: Supervisor Mike Wilson, echoing Craig Tucker’s comments about our climatological “new normal,” suggested that the county should create a new position – a “sustainability and resilience coordinator” – that could be the local point person for policy relating to climate change, and could also seek funding for the county’s adaptation efforts. Many other California counties have already created such a position, he said.

Finally, Wilson put forward a motion for the board's consideration. It came in two parts – one: that staff come back with a drought update in four to six weeks, and to have some policy options for the board to consider; and two: that the board discuss, at a future date, the option of hiring a sustainability and resilience coordinator.

Wilson: Yes. Bass: Yes. Madrone (surprisingly): No. Bohn (with a bit of a laugh): No. Bushnell: No. Motion fails.

Bass, as the board's chair, prepared to move on the next item on the agenda, saying "Well, this has been an interesting day already." But Madrone, who had been largely silent during the back-and-forth among the other supervisors, chimed in, saying wanted to justify his seemingly out-of-left-field no vote. Madrone said he supported all the aspects of Wilson's proposals except one: Four to six weeks was too slow.

"I'm looking to take action not in four to six weeks," he said. "I think we ought to be acting today, and if not today then in a week or two, but I very much support the [sustainability and resilience] position that was suggested."

"Would you like to make a motion to that half of the item?" Wilson asked. "Because we've now just sent a message that we don't want that. And that message is going to be heard loud and clear. So would you like to make a motion of something you *want* to see happen here today?"

Thus began another 20-odd minutes of hair-pulling discussion about things like parliamentary procedure, about what sort of time frame would be reasonable for staff to do the new work requested of them without pulling them from other duties. Eventually, two new ideas were thrown into the mix: That the board could direct county staff, *now*, to put out statements to the public that we are in a serious drought crisis, and that everyone should conserve water and practice fire readiness; and two, that Derby, Seemann and Ford could be formally appointed to a task force that would study policy options for a county drought response, and that this task force would report back to the board *as soon as possible.*

Madrone made two separate motions to incorporate those two ideas into Wilson's previous omnibus motion, and both of Madrone's motions passed unanimously.

Amid a worsening drought, water supplies at one important reservoir are in good shape

Published 5/23/21
KTVU FOX 2

KTVU Meteorologist Mark Tamayo reports.

SAN FRANCISCO - The Sierra snowpack is vanishing quickly. Compared to the historical snowpack for this time of year, the May survey shows that we are only 2 to 5 percent of normal.

In Yosemite National Park, the Hetch Hetchy reservoir relies on the annual snowmelt to stay full. The reservoir provides water to a large portion of the Bay

About 2.8 million residents in the Bay Area depend on water from the Hetch Hetchy. This includes San Francisco, San Mateo, Santa Clara and Alameda Counties.

For a reservoir that relies on snowpack, the Hetch Hetchy reservoir is actually in pretty good shape in terms of water supply.

Currently, the reservoir is holding 93 billion gallons and continues to rise. The outlook calls for water storage to grow to 117 billion gallons, which is full capacity.

During a normal year, snowmelt into the reservoir is enough to fill it completely three times. While that is not the case this year, supply will meet the demand for Hetch Hetchy customers.

Right now, there are calls for voluntary reductions for the 1,600 irrigation customers in San Francisco. While this mainly affects parks and golf courses, there could be tighter restrictions if the drought continues next year.

KTVU Meteorologist Mark Tamayo visited the Hetch Hetchy reservoir during the extreme drought of 2015. The reservoir was holding 80 billion gallons at the time, far lower than current levels.

Stunning new photos reveal depths of 'historic' California drought

Some farmers are already abandoning their crops

SFGATE: by Andrew Chamings
June 2, 2021

A heat wave is currently baking a parched Northern California, worsening the extreme drought that Gov. Gavin Newsom has already described as "historic."

Once-wet lake beds have turned to dust, the snowpack in the Sierra is nonexistent and water shortages are already hitting home. And fears are growing for a potentially devastating wildfire season after 4.1 million acres of California were ravaged by flames in 2020.

In Fresno and Merced counties, farmers are making tough decisions, abandoning thousands of acres of lower-value, high-water crops like almond and asparagus fields, for more valuable produce.

"It's a really sad day," Fresno County's Joe Del Bosque told the Bay Area News Group, after destroying 100 acres of organic asparagus to divert precious water to more valuable melons. "The water is so uncertain this year. We didn't think we'd have enough to carry it through."

Elsewhere, Lake Tahoe's waters are so low some boats can no longer launch, while Lake Oroville's water level dropped down to 695 feet in January, its second-lowest point in recorded history.

Newsom has declared a drought emergency in 41 of California's 58 counties. More than 37 million Californians live in these drought areas, according to the U.S. drought monitor.

"This is without precedent," Newsom said from the cracked bed of Lake Mendocino in April. "Oftentimes we overstate the word historic, but this is indeed an historic moment."

New photos now reveal the intensity of the historic drought.

Justin Sullivan/Getty Images

Rows of almond trees sit on the ground during an orchard removal project on May 27 in Snelling, Calif. As the drought emergency takes hold in California, some farmers are having to remove crops that require excessive watering due to a shortage of water in the Central Valley.

One Central Valley farmer had 600 acres of his almond orchard removed and shredded, and now plans to replace the almonds with a crop the requires less water, reports Getty.

Justin Sullivan/Getty Images

In an aerial view, houseboats are dwarfed by the steep banks of Lake Oroville on April 27.

"It's definitely a reflection of the last two dry years we had," Eric See, environmental program manager for the California Department of Water Resources, told SFGATE. "We're entering into a drought period. We've gone through this before. It's something that's part of the landscape of California.

The Weekly Newspaper for California Agriculture
AgAlert
California Farm Bureau®

Issue Date: May 19, 2021
By Dave Daley

My family has spent five generations living, working and caring for the lands, waters and wildlife that inhabit our area—while also ensuring our communities have access to high-quality protein.

From the beginning, stewardship of the land and active engagement with the natural resources around me was a necessary and inevitable outcome of our cattle operation. On private land, resource stewardship is expected: You take care of the ground you own, not only because of pride in ownership, but also because your inputs determine your output.

The same is true for public lands grazing allotments. Across the West, federal agencies manage more than 250 million acres for livestock grazing, with various levels authorized. These authorizations are based on robust environmental analysis and are adapted to ecosystem conditions.

Livestock grazing is the only multiple use that pays to improve the landscapes on which it occurs, leaving the resource more resilient. Moreover, these grazing activities are the first line of defense against threats facing incredibly expansive ecosystems. Wildfire is chief among those threats.

West-wide, ecosystems have changed. Overcautious policy to correct real or perceived wrongs in stewardship resulted in decreased active management of forests, grasslands and rangelands. The result: dense canopies more prone to fire, rangelands overgrown by invasive species after abnormally hot fires, and fires that seem impossible to stop.

The consequences of poor management, of poor adaptation to changing conditions have brought us to a place where we need swift, decisive, strategic intervention to interrupt the current fire cycle that perpetuates negative impacts of drought, fire, loss of biodiversity, decrease in watershed health and more.

Unfortunately, this is not an academic exercise for me.

In 2020, the Bear Fire consumed the mountains I have called home for my entire life. With it, the fire took my cattle, the hundred-year-old trees and the soil store of native seeds for grasses and shrubs that hold the topsoil, secure streambanks and are the forests' life source. It took deer and birds and foxes. It destroyed homes and fences and outbuildings. For a time, it destroyed hope.

I walked through smoldering trees and over hot ground, knowing the ecosystem that had once been a thriving and complex system was now a hellscape of ash and sterile dirt.

We must do better, and often the question is "how?"

Those who want to protect forests, rangelands and grasslands have sought to do so at any cost. That protection has too often meant preservation, which limits human interaction in an effort to keep ecosystems pristine. But that's not how nature works.

Ecosystems are ever changing, influenced by actions and factors that may be miles—or years—away. To keep an ecosystem healthy, it needs constant interaction and cultivation, the kind that takes coordination among state, federal and non-governmental entities. This is the kind of coordination and cooperation we see on grazing allotments. It needs to be replicated.

After last year's catastrophic fire season, California political officials, fire experts, natural resource managers and private citizens finally agreed on a few basic principles: Catastrophic fire conditions are pervasive, intervention isn't optional, and the current management system has failed. Federal and state bureaucracy intended to be protective had become restrictive. Environmental analysis intended to prevent negative outcomes had delayed critical activities.

Restoring ecologies and making landscapes more resilient means cultivating experts in environmental analysis. It means supporting ranchers who are bringing home the next generation of agriculture and land managers. It means ensuring there are healthy landscapes for future generations by investing in those who can do the boots-on-the-ground work of reseeding and prescribed fire management. It is an all-of-the-above approach that rural stakeholders have been bringing to Congress for years, in hopes that Congress would listen.

Congress has been focused on the big picture, wallowing in the intransigence of the issue, rather than picking a solution and making it work. You improve the health and resilience of millions of acres of forest a few acres at a time, replicated over many areas.

There are options available to Congress and to federal agencies, if only you will avail yourselves of them. Using "good" fire—prescribed fire—to decrease fuel loading is one. Where conditions prevent the use of fire, prescribed grazing should instead be used.

I leave you with some of the closing words I shared during the worst days of recovery efforts on the Bear Fire:

"And now we go on. What will happen? This is devastating emotionally and financially. And I am not sure of the next steps. I do know this: We must change our land management practices if we expect the West to survive."

(Excerpted from testimony before the House Natural Resources Subcommittee on National Parks, Forests and Public Lands by Dave Daley, Butte County cattle rancher, chairman of the National Cattlemen's Beef Association Federal Lands Committee and former California Cattlemen's Association president.)

Lost Coast Outpost
JULIE CART AND RACHEL BECKER, CALMATTERS / 5/14/21

Running Out of Water and Time: How Unprepared Is California for 2021's Drought?

When James Brumder and his wife Louise Gonzalez moved into their home tucked up against the mountains northeast of Los Angeles, he applied all his know-how to the task of undoing the thirsty garden they inherited.

Brumder, who worked for a commercial landscaping company, pulled up their weedy, unkempt lawn in Altadena and replaced it with native grasses, filled ingarden beds with species that could make a living off the region's fickle rainfall, installed drip irrigation, set up rain barrels and banked soil to collect any errant drops of water. Whenever the backyard duck pond - a blue plastic kiddie pool - was cleaned, the water was fed to drought-adapted fruit trees.

It was 2013, a year before a statewide drought emergency was declared, but even then the water crisis was apparent to Brumder and most everyone in California: A great dry cycle had come again. Four years later, it receded when a torrent of winter rains came. The drought, finally, was declared over.

Generals know that you always fight the last war. So California - already in the clutches of another drought emergency - is looking over its shoulder at what happened last time, anticipating the worst and evaluating the strategies that worked and those that failed.
So is California in a better position to weather this drought? Some things are worse, some better: Groundwater is still being pumped with no statewide limits, siphoning up drinking water that rural communities rely on. In northern counties, residents are reliving the last disaster as water restrictions kick in again, but in the south, enough water is stored to avoid them for now.
The good news is that in urban areas, most Californians haven't lapsed back into their old water-wasting patterns. But, while some farmers have adopted water-saving technology, others are drilling deeper wells to suck out more water to plant new orchards.
The upshot is California isn't ready - again.
"We are in worse shape than we were before the last drought, and we are going to be in even worse shape after this one," said Jay Lund, co-director of the Center for Watershed Sciences at University of California at Davis.

The most acute problem, experts say, is the lack of controls on groundwater pumping.
"Despite increasingly occurring droughts, we could be doing much better than we are doing," added Peter Gleick, co-founder of the Pacific Institute, a global water think tank.
"We manage finally to get some statewide rules about groundwater, but they are not going to be implemented for years." As a result, he said, aquifers are still being over-pumped and land is sinking.

And an overarching question lingers: How will Californians cope as the world continues to warm and the dry spells become ever more common and more severe?

Then and now: How does it compare?

Three-fourths of California is already experiencing extreme drought, a designation that only hints at the trickle down of impacts on people, the environment and the economy. Nature's orderly seasons are upended: As the winter so-called "wet season" ended, Gov. Gavin Newsom declared a drought emergency in 41 counties.

This year's drought is steadily approaching the peak severity of the last one, climate experts say. It's a dangerous benchmark: 2012 through 2015 was the state's driest consecutive four-year stretch since record-keeping began in 1896. Drought is characterized by deficit - of rainfall, snow, runoff into rivers, storage in reservoirs and more. And all of these factors are in dire shape this year. Some are even worse than they were during the last drought.

Much of the state has received less than half of average rain and snowfall since October, with some areas seeing as little as a quarter. For most of Northern California, the past two years have been the second driest on record.

The Sierra Nevada snowpack, which provides about a third of California's water, dwindled to 5% of average this month, equaling April 2015's record-low percentage. That signals trouble for California's reservoirs - even before the long, dry summer begins.

Already, the water stored in major reservoirs is far below normal as some rivers' runoff has dipped below the last drought's levels. Lake Oroville, which stores water delivered as far away as San Diego, has dropped to just under half of its historic average for this time of year.

"We've had dry springs before, but that is just astonishing," said Daniel Swain, a climate scientist at the University of California, Los Angeles and The Nature Conservancy. "And we're still a few months out from seeing the worst of things."

Megan Brown, a sixth-generation cattle rancher in Oroville, worries that climate change might finally make her the last of her family to run cattle in California. Dry pastures can force ranchers to sell livestock or buy expensive feed. Usually, she said, the hills on her ranch are as green as Ireland in the spring. But by the end of April, dry golden grass had already started to claim the slopes. The blackberry-lined creek on Brown's ranch is so parched that her dogs kick up clouds of dust as they nose through the rocks.

"It's turning," she said, looking up at her browning hills dotted with so many fewer cows than usual. "I don't like it. It's scary."

All Californians were ordered to conserve, and state officials in 2015 mandated a 25% statewide cut in the water used by urban residents. Homeowners used smartphone apps to turn in neighbors for over-sprinkling their lawns, and cities hired water cops to enforce the rules. Hotels notified guests of reduced laundry service. In restaurants, glasses of water that used to automatically appear were served only after patrons requested them.

Thousands of rural wells, particularly in the Central Valley, ran dry, forcing the state to truck in emergency drinking water to hard-hit Latino communities. In 2014, with years of the drought to go, recent groundwater levels in some parts of the San Joaquin valley had already sunk 100 feet - the equivalent of a 10-story building -below historic norms.

Agriculture took a $3.8 billion hit from 2014 through 2016. More than a half-million acres of farmland was taken out of production for lack of irrigation water, and an estimated 21,000 jobs were lost in 2015 alone.

The astonishing aridity also killed more than 100 million trees and weakened millions more, setting off a catastrophic cascade: The carpet of dead trees added fuel to California's wildfire epidemic. Fire season stretched year-round and into normally

Prolonged dry periods, some more than a hundred years in the state, can be traced to the Middle Ages, via tree rings from stumps preserved in lakes. But while droughts are part of California's natural cycles, climate change is exacerbating them, increasing drought frequency and making them more extreme, climate experts say.

In his 1952 novel, East of Eden, John Steinbeck depicted the yin and yang of California's water cycle in the Salinas Valley where he grew up, how the bounty of the wet years drove out memories of the dry, until, predictably, the water wheel came back around. "And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way."

But droughts and water shortages are more of a persistent way of life now in California than a mere cycle. The rare has become the routine.

Drought's terrible price

The last drought posed a palpable, day-to-day crisis. The signs were clearly visible: withered crops and gardens, bathtub rings around shrinking reservoirs, dried-out salmon streams. People drove filthy cars and thought twice about flushing their toilets. Ski runs reverted to gravel and mountain resorts shut down months early.

damp parts of the state.

As rivers heated up, their flows dwindled and about 95% of endangered winter-run Chinook salmon were lost below Shasta Dam in two consecutive years. A record number of commercial and recreational fisheries were shut down, and countless ducks and other waterbirds died as wetlands vanished.

"California was unprepared for this environmental drought emergency and is now struggling to implement stopgap measures," the Public Policy Institute of California concluded in 2015.

Today, despite the warnings, in many ways the state finds itself in the same situation: Forewarned but still not ready.

"The universal truism is that by the time you react to a drought it's too late to react to a drought," said Jeffrey Mount, a senior fellow at the Public Policy Institute. "The majority of things you have to do to mitigate impacts have to be done before the drought."

Droughts are expensive for taxpayers. The legislature appropriated $3.3 billion toward drought response from 2013 to 2017, including $2.3 billion in voter-approved bonds. About $68 million was spent on emergency drinking water for communities where wells went dry, but the biggest chunk funded projects to begin augmenting supply, such as more water recycling and groundwater management.

Now, to address the current drought, the Newsom administration has proposed spending another $5.1 billion, for a start. But the "start" may be already too late.

"I can think of a lot of places to spend money, " Mount said. "But it's too late for this drought."
Natural Resources Secretary Wade Crowfoot said California is better prepared than before the last drought, but climate change is quickly moving the finish line.
"We are in a race against time and the changing climate. And so all that we've done is important, but we need to do more," Crowfoot said.
Felicia Marcus, the top water official who shepherded the state's response to the record-breaking drought under former Gov. Jerry Brown, said California "made real progress in some areas during the last drought" but needs to conserve and recycle more water, capture more in aquifers and better protect ecosystems.
Leaming to live with less
The experience of the last drought left behind lasting effects across California, in the way that trauma can afford painful lessons.
But it's one thing to repeat the mantra that "water is precious" and quite another to learn to live with less of it. State officials are relieved that some behaviors mandated in the last drought have become habits with lasting benefits for conservation.

Between 2013 and 2016, Californians on average reduced their residential use by 30%. Since then, per capita water use has ticked up, but Californians used 16% less water in recent months than they did in 2013.

The ubiquity of drought has forced many Californians to change their fundamental relationship with water. Their responses to the pleas to conserve have varied, reflecting the state's diversity of climates, populations, property sizes and lifestyles. For instance, urban residents of the San Francisco Bay Area, the Central Coast and North Coast used the least amount of water in 2020 - an average of 71 to 73 gallons a day per person - compared to 86 in Southern California, 125 in the Sacramento Valley and 136 in the southern San Joaquin Valley. Every region's use edged up slightly last year - perhaps due to COVID-19 sheltering at home - but every region is considerably lower than the early years of the last drought.

Some Southern Californians endorsed conservation with a vengeance, ripping out more than 160 million square feet of lawns during the last drought. Golf
courses followed suit; they tore out turf on non-playing areas in favor of drought-tolerant plants, while watering greens and fairways with recycled water.
Still, households using 400 gallons per day aren't uncommon in Southern California, said Los Angeles County Public Works Director Mark Pestrella. And, despite permanent conservation gains leftover from the last drought, some massive residential water users - called water buffalos - use 4,000 gallons a day.

The disconnect? "Water is cheap," Pestrella said.
The state's cobbled-together policies of carrots and sticks managed to reduce water consumption in cities statewide. California officials toughened standards for toilets, faucets and shower heads and ramped up efficiency requirements for new landscaping. Millions of dollars in rebates were offered by state and local water agencies to coax Californians into replacing thirsty lawns.

When conservation alone wasn't enough, an executive order by then-Gov.
Brown gave officials the authority to send help to well owners and struggling small water systems.

Some policies, however, have not yet been fully realized.

Lawmakers tasked state agencies with developing efficiency standards for residential, commercial, industrial and institutional water use, but these are still in the works. Also, statewide rules that banned wasteful practices like hosing off driveways expired in 2017. The water board's 2018 effort to revive them was dropped after local agencies complained that mandates should be left up to them. A major law enacted during the last drought is supposed to stop groundwater depletion over the next 20 years. But the law is still in its very early stages; the state has not limited groundwater pumping anywhere yet.

"We do an absolutely terrible job at some things, and groundwater is one," said UC Davis's Lund. "It takes 30 years to implement (the new groundwater act) from zero to something sustainable. It's going to take a long time and it's going to be ragged around the edges."

Lawmakers were warned by state analysts last week to prepare for wells to go dry again, largely in Central Valley rural towns, and line up emergency supplies of drinking water.

"I suspect we're going to see similar issues with wells running dry and damage to infrastructure that we saw during the last drought," said Heather Cooley, director of research at the Oakland-based Pacific Institute. "We're going to see a lot of that this year and in the coming years."

The mighty agriculture industry, which uses the bulk of California's water, plowed up some crops such as rice and alfalfa to save water. A state program awarded growers more than $80 million in grants to install low-pressure irrigation systems and make other conservation measures.

But growers also continued to plant new fruit and nut crops, despite the recurring water shortages. Some farmers offset their financial losses by fallowing fields and selling their water to other growers. Some orchard growers intensified groundwater pumping by digging deeper wells and using "new water" to plant more trees. The number of acres of almond trees -a water-intensive, high-value crop - doubled in the last decade, although the industry has significantly improved its water efficiency in recent years. "High returns on orchard crops have made it profitable for farmers to invest in deeper wells, aggravating groundwater depletion," according to a Public Policy Institute of California analysis.

Ranchers face difficult decisions

Katie Roberti of the California Cattlemen's Association told CalMatters that ranchers are facing the most severe conditions in decades. "Without precipitation many California cattle producers are going to be forced to make the difficult decision to reduce the size of their herds, some more drastically than others," she said.

Megan Brown, the Oroville rancher, already sold a third of her cattle - including all of her replacement breeders that replenish her herd - after the dry 2020 winter, when the grasslands they forage on dried up.

"We were ahead of the game because we saw the writing on the wall," she said. "If you don't have the grass, you're not going to make the money."

She sold "anything that looked at me funny, or had an attitude, or I thought would fail or wouldn't make me money," she said. "It was hard, some of these cows I've had for ten years."

The US Department of Agriculture declared a drought disaster that allows growers and ranchers to seek low-interest loans.

But Brown refuses to accept a loan. "Our family history has a saying that if you can't buy it in cash, you can't really afford it."

Brown has seen back-to-back calamities hit her land: drought, torrential rains and then fires that destroyed wooden flumes that ferry water from the west branch of the Feather River to Oroville and landowners like her along the way.

"It's all these things, barn, barn, barn, barn, barn - every year. It's not supposed to be like that. We're supposed to have these once in a generation," Brown said. "It's more. It's worse."

She's already weighing how to adapt her ranch to a changing California, such as raising heritage hogs and turkeys instead of cattle, and wondering whether there's a future in emus.

"It hurts, man, it hurts your soul," Brown said. "I always felt like I might be the last one in the family to run cattle. I've just had a bad feeling. And this kind of makes it real, like my bad feeling was justified."

North and south: One dries up while one stored for a rainy day

When you take into account the path that water moves from source to tap, it's a daily miracle that any of it arrives at its destination. Every day 20% of the electricity used in California and 30% of the natural gas is used to pump water.
All that energy is necessitated by geography: Much of the state's water is in the north and much of its population is in the south. This shift requires the State Water Project's massive pumping plants to push water uphill 2,000 feet from the floor of the San Joaquin Valley and over the Tehachapi Mountains, where it flows down to the great southern basin and its 24 million people.

This year, the state expects to deliver only 5% of water requested from the State Water Project. And there's an indefinite hold on federal allocations for some agricultural users both north and south of the Delta.

Nevertheless, the Metropolitan Water District, which supplies imported water for 19 million people in six Southern California counties, says it has managed to sock away record levels of water despite back-to-back dry years.

"We've gone into this year with the highest storage levels in our history, actually," said Deven Upadhyay, assistant general manager and chief operating officer for the Metropolitan Water District. "Storage-wise, we go into this year - the second year of a drought, and now a really critical year - pretty well positioned."

About 3.2 million acre-feet of water are tucked away in storage, with another 750,000 reserved in case of a disaster like an earthquake. That's enough to meet the demands of 12 million households in the Los Angeles area.

As a result, Southern California agencies are unlikely to mandate rationing this year, although Upadhyay encourages residents to be careful with their water use.

But in the north, the situation is more dire. Some local agencies and counties are already limiting water use long before the drier summer months arrive.

For some, it's deja vu: Fountains are going still again, pools and hot tubs must be covered and residents are urged to turn down taps and swap out lawns. Some water providers are already hiking rates to pay for emergency water supplies.

The town of Mendocino, which depends heavily on rain-fed aquifers, declared a stage 4 water shortage emergency requiring residents to use 40% less water than allotted. Many residents are already there, said community service district superintendent Ryan Rhoades.

In Redwood Valley, which has roughly 1,100 municipal and 200 agricultural customers just north of Ukiah, the water district has already turned off the tap to agricultural customers.

Bree Klotter, a wine grape grower and member of the district's board, said it's one more challenge for residents who are just emerging from devastating wildfires on the heels of the last drought.

The district earlier this month set a 55-gallon-per-person-per-day limit on residential water use, and expected pushback. But it never came. "We had set a meeting for two hours and literally nobody showed up," Klotter said. "I don't know whether it's because they have adapted their behaviors to accommodate the drought, or whether they're just like, this is just something else - one more thing."

Her well is 'more valuable than gold'

Novelist Joan Didion wrote that growing up in Sacramento, she knew it was summer when "coughing in the pipes meant the well was dry."

It's a sound familiar to many, and a harbinger of dry times. About 60% of California's water supply comes from groundwater during dry years, and the state has roughly a million residential wells. More than 2,000 households reported dry wells during and after the last drought.

Some well owners are already struggling with coughing pipes this year.

Jasna Hendershott, 66, has lived in the same house in the mountain town of Oakhurst outside of Yosemite National Park for nearly three decades. She has always been careful how she uses her well water.

During hot summers, Hendershott uses paper plates to avoid washing dishes. She takes short showers, only washes full loads of laundry and she doesn't have sprinklers for her yard.

"It's more valuable than gold, and you really need to worry about it," Hendershott said. "If you don't save water, then you're putting everybody into danger."

Even so, during the last drought, her well occasionally ran dry during summer months. And about a year-and-a-half ago, it dried up completely. While she waits to find out whether she needs to drill a deeper well, Hendershott has been relying on water deliveries to fill her well's storage tank - first from Madera County and now from the non-profit Self-Help Enterprises.

RACHEL BECKER, CALMATTERS / MONDAY, MAY 10 / SACRAMENTO

POSTED IN LOST COAST OUTPOST

Drought Emergency Declared in Central Valley, Klamath Region

California Gov. Gavin Newsom today declared a drought emergency in 39 additional counties, including most of the parched Central Valley and Klamath River area.

The declaration comes amid mounting pressure from lawmakers and growers in the Central Valley, who this year are receiving only 5% of their expected water allocations from the state. Growers say the sharp cutbacks in state and federal water supplies will mean they will suffer huge economic losses and be forced to fallow fields and sell off cattle.

A bipartisan group of Central Valley lawmakers wrote to Newsom in April pushing for a statewide emergency that would give the state more flexibility in granting water transfers. They also sought easing of some rules for reservoir releases, which would "allow for more water to go to communities throughout the state."

The governor's emergency drought order "sounds positive to us, particularly the flexibility for water transfers," said Mike Wade, spokesman for the California Farm Water Coalition, which represents state growers. "We have water in some areas and we want to make it available in other areas. Those transfers have to be approved in time periods that work for growers on another end."

Natural Resources Secretary Wade Crowfoot said the order will expedite transfers of water wherever possible among growers and agencies — which means one grower can sell water to another. But he told CalMatters that the state cannot increase reservoir releases to give growers more water at this point. In fact, the emergency declaration will waive water quality standards to allow more storage of water in reservoirs for the dry days ahead.

"That being said, we want to support growers however we can," Crowfoot said.

The emergency declaration spans 31 counties in the Sacramento and San Joaquin basins, four counties in the Klamath River basin in the far north and four groundwater-dependent counties in the Tulare Lake basin in the southern San Joaquin Valley.

The new order expands the drought emergency to a total of 41 counties. Declarations already were announced last month for Mendocino and Sonoma counties due to severe conditions in the Russian River watershed.

Extreme drought in nearly all of California

The news comes as drought spreads across California, with most of the state experiencing extreme drought conditions or worse.

Water levels in the state's major reservoirs have dropped far below average, and there's little hope of refilling them.

Rainfall in almost all of the state has dropped below half of average. The Sierra Nevada snowpack dropped to 8% of average by May 10, and the dry air and soil are drinking up potential runoff. Streamflow in Sierra Nevada watersheds rivals lows seen during the peak of the recent five year drought.

"None of that water is entering the rivers and streams and flowing into reservoirs," said Daniel Swain, a climate researcher at the University of California, Los Angeles. "It's been steadily getting worse and steadily approaching the peak magnitude of the last big one."

Crowfoot said the emergency order will allow the state to modify water quality requirements in rivers and the Bay-Delta in order to hold more water in reservoirs such as Lake Oroville, the largest reservoir the state operates.

The goal, Crowfoot said, is "so that we can hold more water within the reservoirs for later in the season, and next year, if it's a dry year."

Under the emergency powers, the state also can curtail water rights in drought-stricken river systems in order to protect threatened fish and prevent saltwater from backwashing from the San Francisco Bay into the Sacramento-San Joaquin Delta, which 29 million Californians rely on for at least some of their drinking water. The Delta is also a key source of water for irrigating the state's multi-billion dollar agricultural industry.

"We need to make sure there's enough water flowing into the Delta to repel salinity, in other words, to keep the salt water from intruding," Crowfoot said.

The emergency powers will cut down on requirements for purchasing and contracting in the affected counties that Crowfoot said could otherwise slow critical services such as trucking fish stranded by low flows and warm water to the Pacific and providing assistance to communities whose groundwater wells have dried.

It will also waive some requirements under the California Environmental Quality Act, which requires an assessment of a project's environmental effects, for constructing physical rock barriers in parts of the interior delta to protect against saltwater intrusion. Crowfoot said he expects the project to begin later this spring.

Among the groups that have been lobbying state officials is California's commercial, recreational and tribal salmon industry, which says it is often at the end of the line when state water is doled out. California's salmon provides $1.4 billion in economic value and supports 23,000 jobs throughout the state, particularly in the Bay-Delta region.

"Obviously, there's not enough water to go around, and obviously drought hurts everybody," said John McManus, president of the Golden State Salmon Association.

"Those of us in the salmon industry would like to see a little bit more compromise and a more balanced allocation of water," he said. "The way it's currently being allocated borders on a social justice inequity. Fishing families, especially on the coast, are being forced to shoulder more of the pain from the drought than the big growers in the Central Valley."

Julie Cart contributed to this story

Engineering

APPLICATION AND CERTIFICATION FOR PAYMENT

TO:	**HBMWD** **828 7th St** **Eureka, CA 95501**	PROJECT:	**HBMWD 12kV Switchgear Relocation**	APPLICATION NO: PERIOD FROM: PERIOD TO:	**8** **11/01/20** **04/30/21**
FROM:	**Sequoia Construction Specialties** **PO Box 6061** **Eureka, CA 95502-6061**	ENGINEER:	**GHD**	FEMA NO.:	**4240-DR-CA-PJ0017**
CONTRACT FOR:				APPLICATION DATE:	05/03/21

APPLICATION FOR PAYMENT

Application is made for Payment, as shown below, in connection with the Contract.
Continuation Sheet is attached.

1. Original Contract Sum		2,448,063.00
2. Net Change by Change Orders		315,007.00
3. Contract Sum to Date (Line 1 and 2)		2,763,070.00
4. Total Completed & Stored to Date		528,850.00
5. Retainage:		
a. 5% of Completed & Stored Work	26,442.50	
Total Retainage		26,442.50
6. Total Earned Less Retainage		502,407.50
7. Less Previous Certificates for Payment (Net amount)		445,407.50
8. Current Payment Due		57,000.00
9. Balance to Finish, Plus Retainage		2,234,220.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months.	23,265	0
Total approved this Month	291,742	0
TOTALS	$315,007	$0
NET CHANGES BY Change Order		$315,007

APPROVED BY

5/11/21

ENGINEER: GHD

OWNER: HBMWD

The undersigned Contractor certifies that to the best of the contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued an payments received from the Owner, and that current payment shown herein is not due.

Contractor:

By: _____ *Brian Pritchard* 5/3/2021

PROJECT: HBMWD 12kV Relocation

Application and Certificate for payment,
containing Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.

APPLICATION NO: 8.00
APPLICATION DATE: 05/03/21
PERIOD TO: 04/30/21

ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED		STORED MATERIALS	TOTAL COMPLETED AND STORED TO DATE	%	BALANCE TO FINISH	RETAINAGE
			PREVIOUS APPLICATIONS	THIS PERIOD					
1	Mobilization	120,000.00	50,000.00	0.00	0.00	50,000.00	42%	70,000.00	2,500.00
2	Erosion Control	10,000.00	6,000.00	0.00	0.00	6,000.00	60%	4,000.00	300.00
3	Access Road	32,500.00		0.00	0.00	0.00	0%	32,500.00	0.00
4	Trenching	320,895.00	138,400.00	0.00	0.00	138,400.00	43%	182,495.00	6,920.00
5	Vaults	109,450.00	109,450.00	0.00	0.00	109,450.00	100%	0.00	5,472.50
6	Building Pad	108,020.00		0.00	0.00	0.00	0%	108,020.00	0.00
7	Drainage	24,453.00	10,000.00	0.00	0.00	10,000.00	41%	14,453.00	500.00
8	Ramp & Wall	81,070.00	63,000.00	0.00	0.00	63,000.00	78%	18,070.00	3,150.00
9	Site Grading	119,340.00	92,000.00	0.00	0.00	92,000.00	77%	27,340.00	4,600.00
10	Fence	27,025.00		0.00	0.00	0.00	0%	27,025.00	0.00
11	IPA Building	404,808.00		20,000.00	0.00	20,000.00	5%	384,808.00	1,000.00
12	PG&E Interconnection	33,000.00		0.00	0.00	0.00	0%	33,000.00	0.00
13	1200 A Metering	34,068.00		0.00	0.00	0.00	0%	34,068.00	0.00
14	1200 A Breakers	169,514.00		0.00	0.00	0.00	0%	169,514.00	0.00
15	1200 A Feeders	482,470.00		20,000.00	0.00	20,000.00	4%	462,470.00	1,000.00
16	1200 A Bus	108,966.00		0.00	0.00	0.00	0%	108,966.00	0.00
17	Switchgear Battery	57,108.00		0.00	0.00	0.00	0%	57,108.00	0.00
18	Relocate Gen Controller	43,287.00		0.00	0.00	0.00	0%	43,287.00	0.00
19	Testing	116,186.00		0.00	0.00	0.00	0%	116,186.00	0.00
20	Decommissioning	45,903.00		0.00	0.00	0.00	0%	45,903.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
C.O.					0.00	0.00	0%	0.00	0.00
1	Fence upgrade	23,265.00			0.00	0.00	0%	23,265.00	0.00
2	Contract Days	0.00			0.00	0.00	0%	0.00	0.00
3	Controller	291,742.00		20,000.00	0.00	20,000.00	7%	271,742.00	1,000.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
					0.00	0.00	0%	0.00	0.00
	Sub-Total	2,763,070.00	468,850.00	60,000.00	0.00	528,850.00	19%	2,234,220.00	26,442.50

Humboldt Bay Municipal Water District

To: Board of Directors
From: John Friedenbach / Nathan Stevens
Date: June 10, 2021

Re: License Amendment from North Coast Rail Authority (NCRA)

Discussion

As discussed, and authorize by the Board at the June 2020 board meeting, (see copy of June 11, 2020 Minutes excerpt attached) staff has been working on an amendment to our existing license agreement with the NCRA. The original license agreement was to allow for the 12 kV Switchgear Relocation Project (12 kV Project). We previously obtained a license [easement] from the NCRA for the construction of the project as it was designed. The existing license includes a 57' x 25' area of land along the existing railroad grade for the purpose of installing and maintaining the new switchgear facility, and it also includes non-exclusive access to the new switchgear facility along the railroad grade. During the construction and layout of actual components, it has become apparent that the existing licensed area needs to be slightly enlarged.

In addition, installing underground electrical power feeders and communication fiber optic lines to Collectors 2, 3, 4, and 5 from the new 12kV location are scheduled to occur once the new 12kV structure is completed. The simplest way to provide underground power and communication lines to these collectors is to start from the new switchgear building, install new conduits along the railroad grade eastward from the switchgear building to the Essex entrance gate (see the attached figures), and then ultimately drop into Park 1 from the railroad grade and entrance to Essex, back onto District property, and traverse onward to the respective collectors. Because there is an electrical contractor already onsite working on the 12kV project, now is the most economical time to install these new conduits up to the Essex entrance gate. Vaults will be required directly east of the new switchgear, as well as near the Essex entry gate, to facilitate pulling of power cables and fiber optic communication lines through these conduits. The conduits will be connected to the Collectors via the vaults near the Essex entry gate as a part of future projects. An additional conduit would also be installed with the others to provide future underground 120/240V power to the gate at the Essex entry. The conduits would all be installed in one joint trench, with a length along the railroad grade of approximately 550 feet.

The most efficient method to obtain legal rights to install this infrastructure is to amend the current license agreement between the District and NCRA.

Next Steps

The drawings for the proposed location modification to the existing NCRA License Agreement are attached for your review. Staff has discussed the concept of license amendment with NCRA staff and they are amenable to this approach. Staff is providing this update to the Directors prior to finalizing the amended license agreement, which will be brought to the Board for final approval, and seeks any feedback from the Directors at this time.

participate in the Equity SGIP program with an equity incentive of $850/kWh. They proposed the District pay for the battery bank and re-coup the investment cost over the life of the incentive and battery bank. Projected cost to the District: $1.7 million over two years. The second vendor, Tesla, suggested the District participate in the Equity Resilience SGIP with an equity incentive of $1,000/kWh. Tesla proposed the District pay an initial application fee of $100 and Tesla would pay the entire cost of the project including maintenance over a 10-year period. The projected PG&E billing savings to the District is $2M over a 10-year period. The total project costs are approximately $3M with zero cost to the District. Tesla does require a standard Non-Disclosure Agreement (NDA) and Tesla Energy Products Purchase Agreement. Legal counsel Ryan Plotz participated in the discussion. Mr. Plotz stated initially he had some concerns regarding the NDA, especially since the District is required to disclose certain information under the California Public Records Act (PRA). He worked with Tesla to arrive at an acceptable agreement he is comfortable with including the NDA. Brian and Evan, Representatives from Tesla concurred the agreement is very favorable to the District. They stated if the District receives a PRA request, please send it to Tesla immediately with a timeframe to respond. Brian stated the power bank is designed to help mitigate some of the PSPS issues with PG&E and provide the District with battery power. Director Fuller inquired if the battery storage would reduce or eliminate the generator use. Brian responded that a fully charged load will allow eight hours of usage. After that, a generator would be needed until the batteries are recharged. The Board was supportive of the Tesla project. On motion by Director Lindberg, seconded by Director Rupp, the Board voted 5-0 by roll call vote to authorize participation in the Equity Resilience SGIP with Tesla as the vendor, direct staff to enter in necessary agreements and authorize construction of the proposed battery bank facility at Essex and at the Turbidity Reduction Facility if analysis proved beneficial similar to the Essex project .

10. REPORTS (from Staff)

10.1 **Engineering**

a) 12kV Switchgear Replacement ($441,750 District Match)

Mr. Stevens shared some good news-an additional $942,246.00 in FEMA grant funding was approved for the project. He also received and approved the second pay request from Sequoia Construction Specialties in the amount of $75,050.00. Manufacturing the switchgear is the next step. Once the final building plans are submitted and approved by GHD and PG&E, production can begin on the switchgear. Also, FEMA has added a new category-Grant Management Costs, which is funded at 100%. This is for administrative costs directly related to the grant. Ms. Harris is working on collecting data and noted that these are costs incurred regardless. It is great that this can now be reimbursed. Mr. Friedenbach added this is a benefit to the District and ratepayers.

Mr. Friedenbach stated as construction effort for the 12kV Project began to increase, staff considered project components that can be installed now to more easily accommodate future planned capital improvement projects. Future projects being considered include installing underground electrical power feeders and communication fiber optic lines to Collectors 2, 3, 4 and 5. Since there is an electrical contractor on site working on the 12kV Project, now is the most economical time to install new conduits up to the Essex entrance gate. The conduits would be installed in one trench, with a length along the railroad grade of approximately 550 feet. The District will require an easement from North Coast Railroad Authority (NCRA) prior to installing the new conduits and associated vaults. An easement for this additional work should be in place prior to the work occurring. The contractor for the 12kV is under contract until November 2020. This allows time to obtain an easement from the NCRA and complete the additional work under the current contract.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
828 7th Street, Eureka

Minutes for Meeting of Board of Directors
June 11, 2020

Staff requests direction from the Board. The Board directed staff to begin negotiation with the NCRA to obtain an easement to place conduit and vaults along the railroad grade between the new switchgear facility and the entrance to Essex.

b) Collector Mainline Redundancy Hazard Mitigation Grant ($790,570 District Match)
No update.

c) Reservoir Structural Retrofit Hazard Mitigation Grant ($914,250 District Match)
No update.

d) TRF Generator Hazard Mitigation Grant ($460,431 District Match)
No update.

e) Appeal of FEMA Funding Denial for Collector 4 Emergency Restoration Work
Mr. Stevens stated CalOES had additional questions and shared the District's response. No determination on the appeal has been made. Staff is still waiting to hear back. Director Latt inquired if a second and third appeal are filed, are they reviewed by the same staff? Mr. Stevens stated his understanding is that a different group would review the other appeals.

10.2 **Financial**

a) Financial Report
Ms. Harris provided the May 2020 financial statement & vendor detail report. Investment accounts are showing recovery as PARS has increased $46,000 and CALTRUST increased $12,000. Director Rupp noted that power sales have decreased. Ms. Harris confirmed this and stated it is due to lack of rain and lower hydro production due to maintaining reservoir levels for water supply. She added that hydro power sales do not impact Municipal Customer charges. She highlighted the salary and employee benefits budget which is running under budget at 86% vs 92% of budget year.

Director Fuller reviewed the bills and all was in order. She stated she likes the new purchase order system as it is very easy to follow. On motion by Director Rupp, seconded by Director Fuller, the Board voted 4-0 by roll call vote to approve the May financial statement and vendor detail report in the amount of $284,643.56. Director Latt was absent.

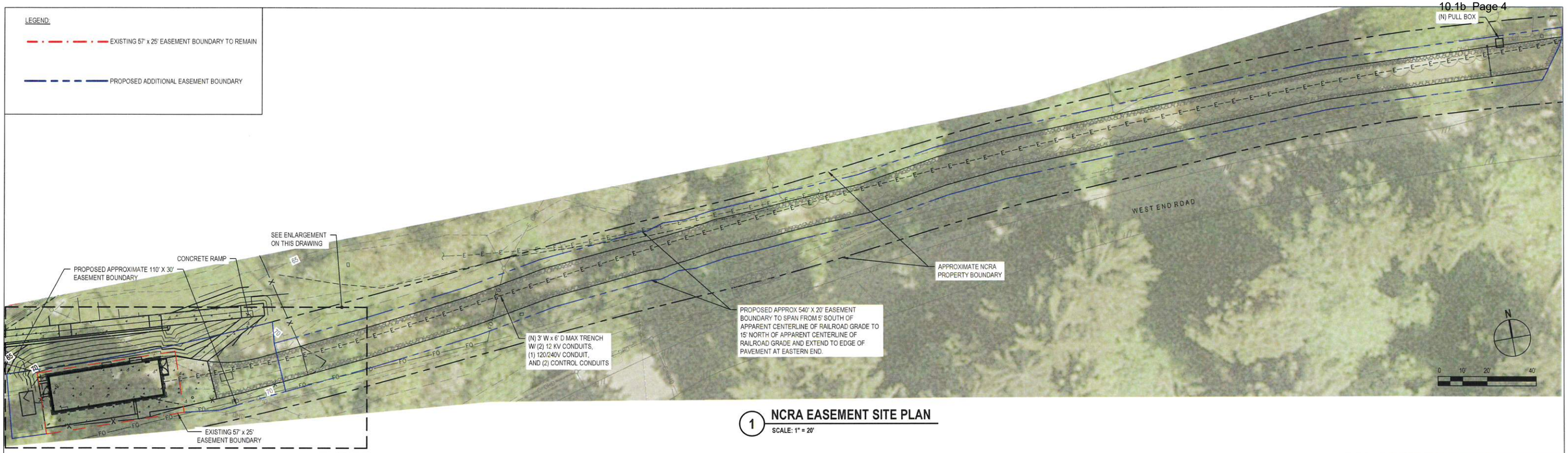
b) Resolution 2020-06 Limit for Appropriations from Taxes
The California Constitution Article XIII (b) requires the adoption of an annual resolution limiting the amount of appropriations for taxes. The State Department of Finance provided the District with the annual price and population figures for fiscal year 2020/21. Staff recommends the Board adopt Resolution 2020-06 limiting the taxes to $1,320,926.00. Director Rupp noted this dollar amount is well above the taxes received by the District. On motion by Director Rupp, seconded by Director Lindberg, the Board voted 4-0 by roll call vote to approve Resolution 2020-06. Director Latt was absent.

c) Unum Life Insurance
Ms. Harris stated there is no rate increase from Unum this year. The District has saved almost $70,000 to date since switching to Unum in 2015. Staff recommends the Board remain with Unum for the employee disability, life and accidental death and dismemberment policies. On

LEGEND:

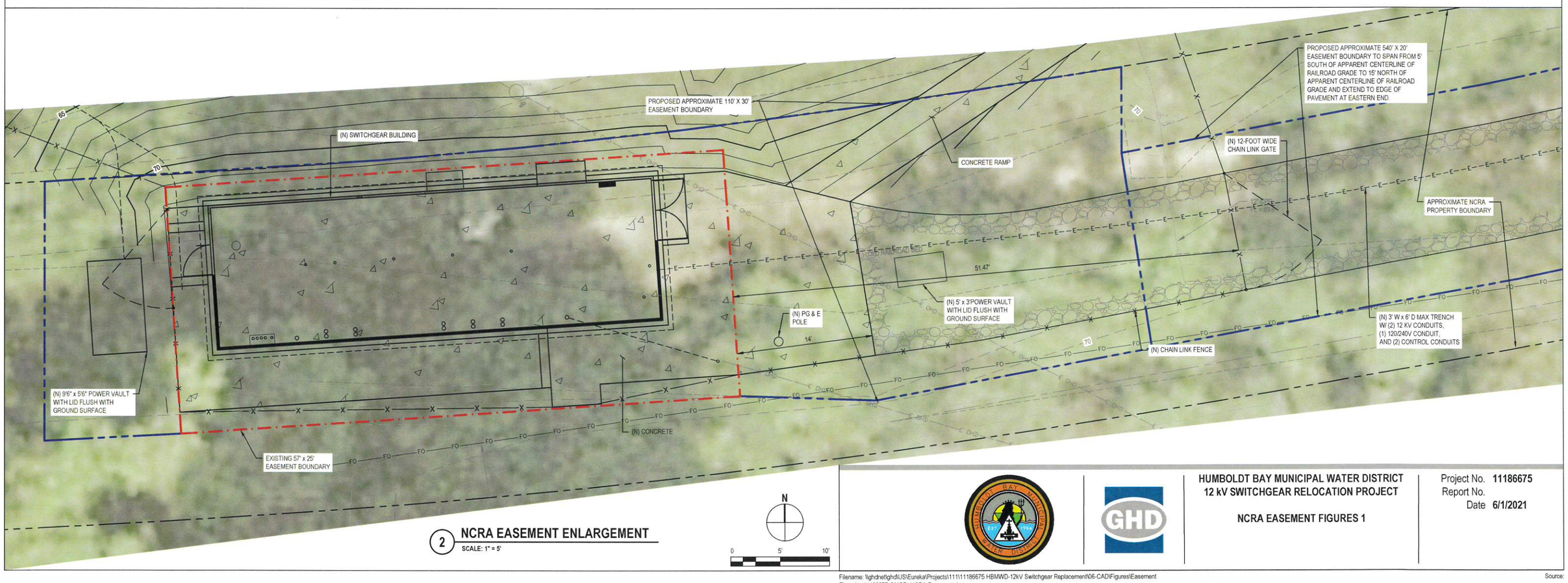
EXISTING 57' x 25' EASEMENT BOUNDARY TO REMAIN

PROPOSED ADDITIONAL EASEMENT BOUNDARY



1 NCRA EASEMENT SITE PLAN

SCALE: 1" = 20'



2 NCRA EASEMENT ENLARGEMENT

SCALE: 1" = 5'

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
12 kV SWITCHGEAR RELOCATION PROJECT

NCRA EASEMENT FIGURES 1

Project No. **11186675**
Report No.
Date **6/1/2021**

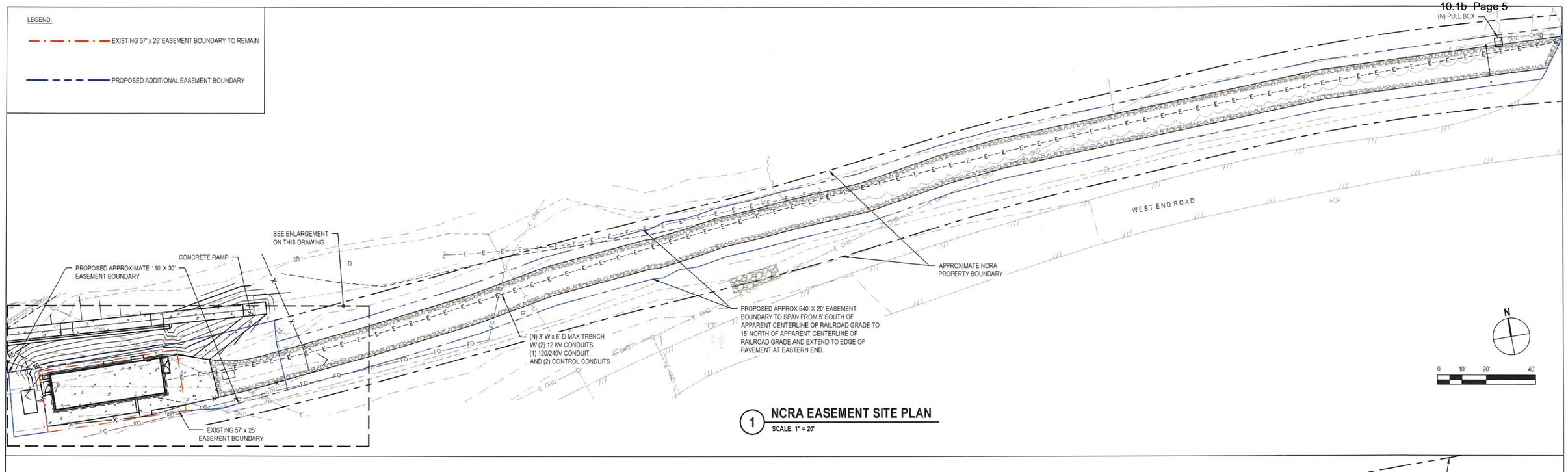
Filename: \\ghdnet\ghd\US\Eureka\Projects\11\11186675 HBMWD-12kV Switchgear Replacement\06-CAD\Figures\Easement Figure\xr-11186675-CMOD_NCRA Easement.dwg

Source:

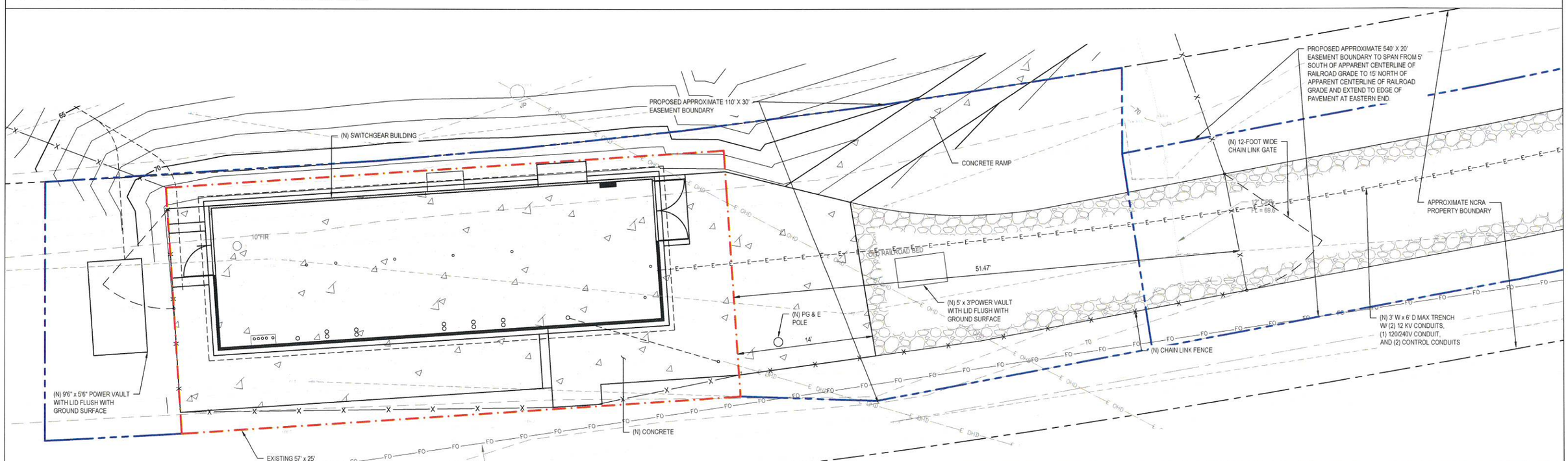
LEGEND:

EXISTING 57' x 25' EASEMENT BOUNDARY TO REMAIN

PROPOSED ADDITIONAL EASEMENT BOUNDARY



1 **NCRA EASEMENT SITE PLAN**
SCALE: 1" = 20'



2 **NCRA EASEMENT ENLARGEMENT**
SCALE: 1" = 5'

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

GHD

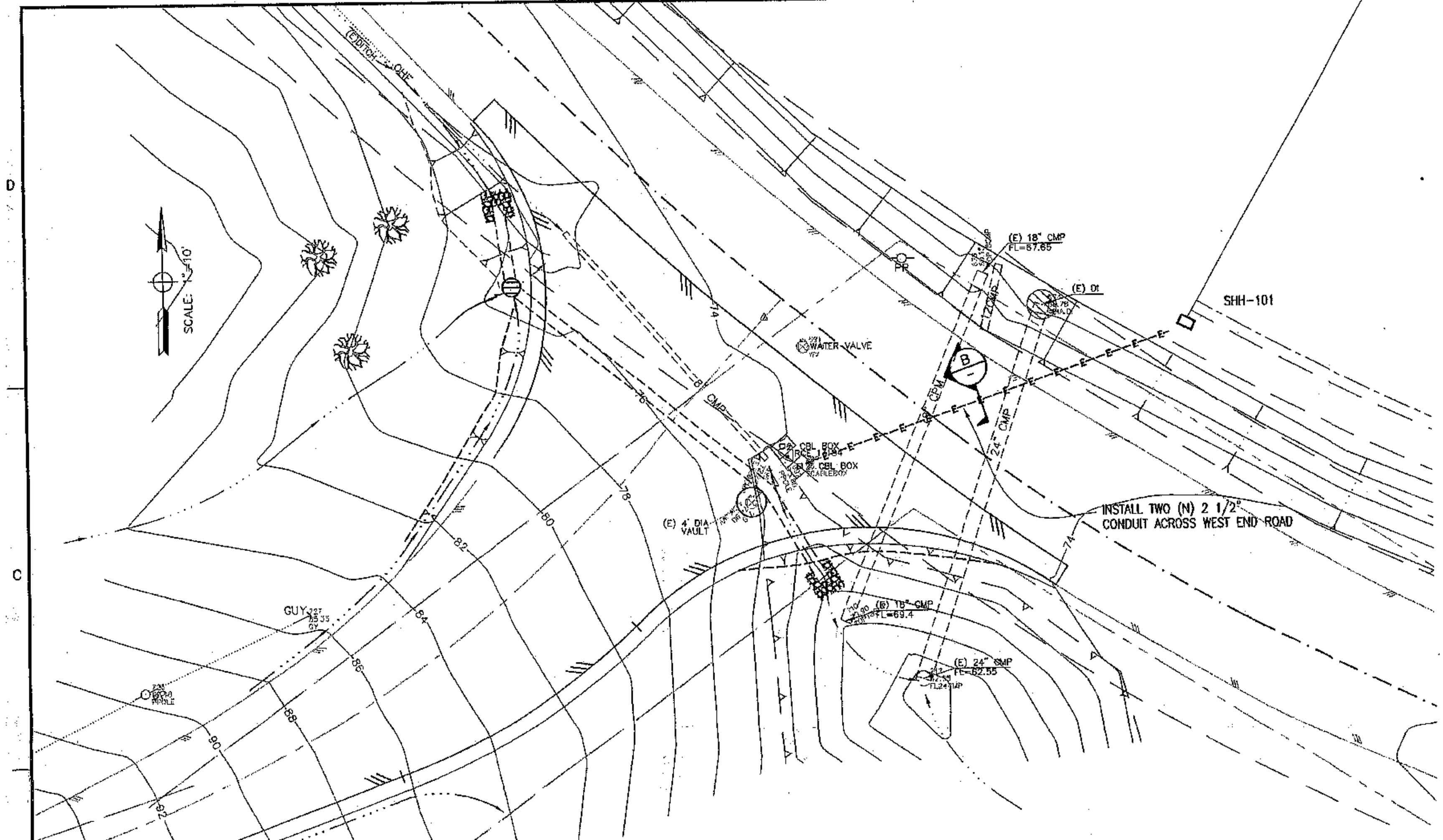
HUMBOLDT BAY MUNICIPAL WATER DISTRICT
12 kV SWITCHGEAR RELOCATION PROJECT

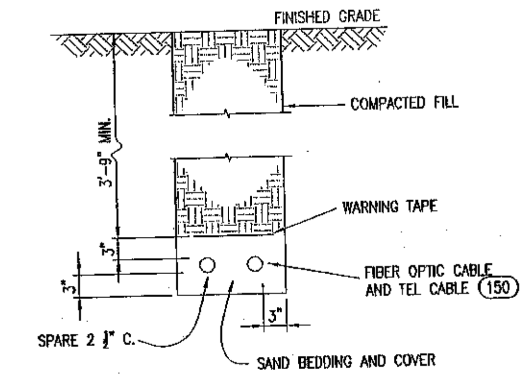
NCRA EASEMENT FIGURES 1

Project No. **11186675**
Report No.
Date **6/1/2021**

Filename: \\ghdnet\ghd\US\Eureka\Projects\111\11186675 HBMWD-12kV Switchgear Replacement\06-CAD\Figures\Easement Figure\kr-11186675-CMOD_NCRA Easement.dwg

Source:

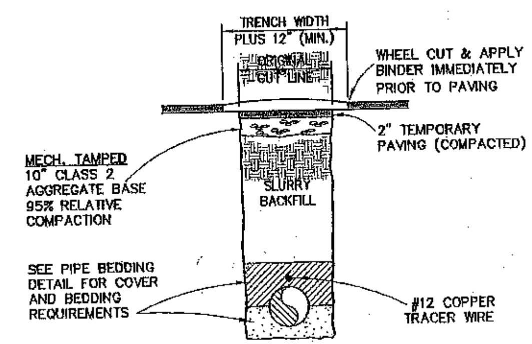




NOTE:
FOR CONDUITS INSTALLED BY DIRECTIONAL DRILLING, INJECT BENTONITE TO ENCASE CONDUITS.

A 1/1 BURIED CONDUIT DETAIL (TYPICAL)

SCALE: NONE



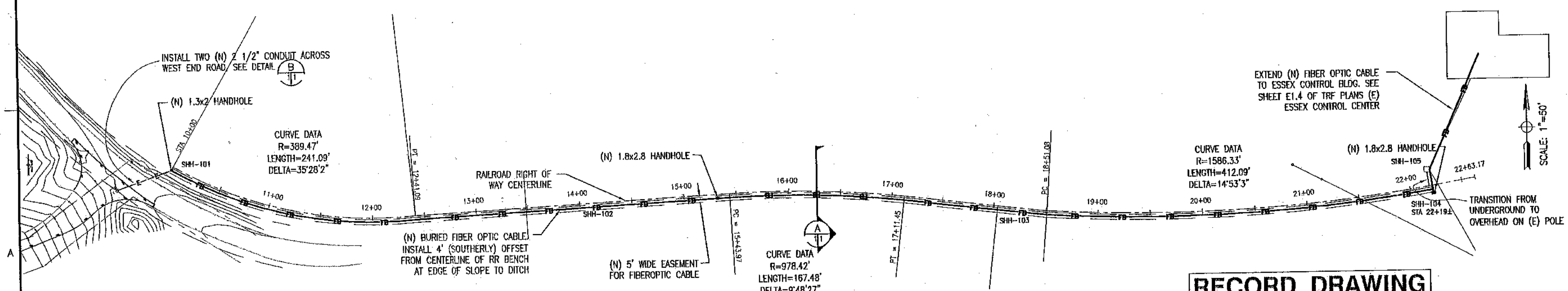
ASPHALT CONCRETE COUNTY ROADS AND SHOULDERS, PRIVATE ROADS AND DRIVEWAYS

B 1/1 STANDARD TRENCH DETAIL PAVED AREAS

SCALE: NONE

NOTES:

1. CONTRACTOR SHALL CONFORM TO HUMBOLDT COUNTY ENCROACHMENT PERMIT REQUIREMENTS FOR WORK WITHIN COUNTY RIGHT OF WAY. SEE TRAFFIC CONTROL PLAN.
2. INSTALL (N) HANDHOLES AS SHOWN. HANDHOLES SHALL BE 18"x12"x30".



RECORD DRAWING

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE PROJECT CONTRACTOR AND OTHERS. THE ENGINEER WIL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT. FIELD VERIFICATION OF CRITICAL FACTS AND DATA SHOULD BE MADE IF THESE DOCUMENTS ARE TO BE A BASIS FOR FUTURE WORK.

SYM	DESCRIPTION	DATE	APPROVED

REVISIONS

WINZLER & KELLY
CONSULTING ENGINEERS
633 THIRD STREET
EUREKA, CA 95501-0417
PH (707) 443-8326
FAX (707) 444-8330

SUBCONSULTANT

DES	AJC	DRN	TL/SJD
SUPV		CHK	AJC

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

SEAL: REGISTERED PROFESSIONAL ENGINEER, ALEXANDER JOSEPH ...RICK, No. C 057919, Exp. 6/30/0., CIVIL, STATE OF CALIFORNIA

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

FIBER OPTIC CONTROL CABLE

PLAN & DETAILS

JOB NUMBER 99127702.410

SHEET 1 OF 2

GAVIN NEWSOM
GOVERNOR

MARK S. GHILARDUCCI
DIRECTOR

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

5/7/2021

John Friedenbach
General Manager
Humboldt Bay Municipal Water District
828 Seventh St, PO Box 95
Eureka, CA 95502

Subject: Phase 1 Time Extension Approval # 2
FEMA-4344-DR-CA, October 2017 California Wildfires
Cal OES PJ0040, FEMA 010, Reservoirs Seismic Retrofit
Subrecipient: Humboldt Bay Municipal Water District, FIPS: 023-91000

Dear John Friedenbach:

The California Governor's Office of Emergency Services (Cal OES) received your letter on May 4, 2021, requesting a time extension from July 31, 2021 to August 31, 2021 for completion of Phase 1 for the project referenced above. Cal OES reviewed the project history and has determined that the time extension is warranted based on the factors listed in your letter.

The approved budget and scope of work remain unchanged for this project. A time extension is approved and all work in Phase 1 must be completed by the extended date.

If you have any questions, please contact Michele Telfer, Regional Manager, at (916) 926-9876 or Michele.Telfer@CalOES.ca.gov.

Sincerely,

DocuSigned by:
B87C1D9FC4CC492...

JENNIFER L. HOGAN
State Hazard Mitigation Officer

Enclosures:

cc: Robert McCord, Hazard Mitigation Branch Chief, FEMA Region IX
Thomas Berry, Hazard Mitigation Assistance Specialist, FEMA Region IX

CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES

GRANT SUBAWARD AMENDMENT

SUBAWARD # 2020-342

FIPS# 023-91000 DUNS# N/A Amendment# 1

Project # N/A Performance Period 07/01/2020 to 03/31/2022

This amendment is between the California Governor's Office of Emergency Services, hereafter called Cal OES, and the Subrecipient: Humboldt Bay Municipal Water District

Amendment to Change End Date:

Grant Subaward 2020-342 is hereby amended to:

Change the end of Performance Period of the Subaward for the following funds FY2020-21 Community Power Resiliency (CPR) Program from October 31, 2021, to March 31, 2022.

The FY2020-21 Community Power Resiliency (CPR) Program funds in the amounts of $215,000 must be expended by March 31, 2022.

****The dates for the special condition MUST match the approved Annual Plan(s).****

Subrecipient (Certification and Signature of Authorized Agent)	
By (Authorized Signature)	Date
John Friedenbach, General Manager	5/21/21
Printed Name	Title
JOHN FRIEDENBACH	GENERAL MANAGER
Address	
P.O. Box 95, Eureka, CA, 95502-0095	

Governor's Office of Emergency Services (For Cal OES use only)	
By Director or Designee	Date
Printed Name	Title

Amount Encumbered by this Document	Fund Source Labels
Prior Amount Encumbered	
Total Amount Encumbered to Date	

I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above.

Signature of Cal OES Fiscal Officer	Date

Humboldt Bay Municipal Water District
TRF Power Resiliency Generator Project
Scope of Work

The mitigation goals and objectives of this project are to install an Emergency Generator at the Humboldt Bay Municipal Water District (HBMWD) Turbidity Reduction Facility (TRF), so when a power outage occurs at the TRF, the TRF will still be able to provide potable water to the 88,000 customers of the HBMWD.

An overall vicinity map and detailed site map of the project area, including staging area, can be found in the Map Tab, Figures 1 and 2. All project areas are HBMWD property; therefore, the project will not require land acquisition, rights-of-way, or access easements. The environmental setting of the project and staging areas are open spaces that are outside of the 100-year floodplain. Please note: as shown in 05 Maps Figures 1 and 2, a portion of the project area is currently wooded. However, prior to start of this project, this area will be cleared as part of a 3-acre timber harvest conversion project. No HMG funds will be used for this 3-acre conversion, and the 3-acre conversion is scheduled to proceed regardless of this project. The excavation and grading associated with this project will occur within previously disturbed areas that are part of the existing HBMWD Essex facilities. The lasting effect of construction will be a new asphalt driveway and access area which will be the location for the emergency generator and a 3,000-gallon fuel tank.

The project will be accomplished with a two-phased approach. The first phase will begin with initial studies, a geotechnical investigation, and preliminary engineering design. After approval of the chosen approach, the second phase will include finalizing the design plans and construction of the project. All professional services will be completed by a private consulting firm(s) that will be selected through a competitive process in accordance with Federal and State procurement requirements.

Phase 1

Phase 1 will include the performance of the special studies required for National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) permitting of the project. It is anticipated that biological, wetlands, and cultural resource surveys will be conducted for the site, and reports developed for each special study. These reports will be provided to CalOES/FEMA for their NEPA permitting.

The CEQA permitting will also be completed for the project under Phase 1. It is anticipated that this project will be categorically exempt under the existing California code. If this is the case, a Notice of Exemption will be prepared for this project and filed with Humboldt County for a period of 30 days to notify the public of the performance of this work. However, it is possible that a Mitigated Negative Declaration may be required.

Phase 1 Tasks will also include the geotechnical investigation, surveying, and preliminary engineering design (50%) of the new generator/fuel tank and all associated site work. A geotechnical analysis will need to be performed to finalize the structural design. This will consist of the installation of two to three geotechnical borings to approximately 20-feet to determine the underlying soils and guide the pad designs. This information will be written up into a report and provided to the contracted Civil Engineer. The engineering analysis will confirm the size and specify the generator and fuel tank system required. The design will also include the site work required to construct a driveway and access area for the generator and fuel tank, locate, and connect the generator and fuel tank system to the necessary motor

control centers (MCCs) for the equipment to be powered, as well as construct the necessary pads to support the generator and fuel tank. The preliminary engineering analysis performed by an electrical engineer determined that a 750kW 3-phase diesel generator will be required to power the backwash pumps (2 X 250-HP), airwash pumps (2 X 75-HP), sludge pumps (2 X 20-HP), and other facilities required for uninterrupted operation of the TRF. The existing loads have been analyzed, sized, and confirmed by a manufacturer, Cummins West. Vendor information for the 750kW diesel generator shows a footprint of approximately 15-feet by 7-feet for the generator. A double-walled, above-ground fuel tank will be located adjacent to the generator with dimensions of approximately 12-feet by 8-feet, and sit on a concrete pad approximately 15-feet by 11-feet. Minor excavations of 3-feet to 4-feet in depth will be required for the generator/fuel tank pads and trenches approximately 2-feet wide by 3-feet deep will be required along the routes for the new electrical conduit. The design of the pads and equipment restraints will meet the current seismic code requirements. The new generator will be located at the HBMWD Turbidity Reduction Facility, which currently has security fencing around the entire perimeter. The security fencing will need to be modified with new fencing around the area of the new 750kW diesel generator, as shown in Tab 03. Designs. The new security fencing will consist of an 8-foot-tall mesh galvanized steel fence with razor wire installed at the top of the fencing in addition to barbed wire. The generator will be at a secure facility where there is no public access, and no chance for vehicles to hit the generator. Given this, no bollards or impact barriers will be required. Please see the revised Scope of Work for additional information. There is currently a spill kit onsite at the Turbidity Reduction Facility. The spill cleanup supplies consist of: a spill barrel containing 4 sorbent booms 5”x10’ oil only and 4 sorbent booms 5”x10’ oil/water; 20 poly sand bags; 20 oil only sorbent pads; 20 oil/water sorbent pads; 2.2-cubic feet bag of Sphag Sorb. Additionally, the facility has 300 oil only sorbent pads and 300 oil/water sorbent pads.

Design plans will be developed detailing the installation of the generator and fuel tank system and required connections to existing facilities. During Phase 1, the design plans will be developed to approximately the 50% level, but will be sufficient to complete the NEPA and CEQA analyses and detail the project description.

Phase 2

Under Phase 2, the final survey will be completed, which will pick up any additional information determined to be missing after the preliminary design. After the final survey is completed, the design will be finalized. The project site and laydown areas will be detailed along with the grading and pad requirements. The generator and fuel tank system will be finalized along with the required electrical feeds and controls. Final plans and technical specifications will also be developed for all aspects of the project along with the other bid and contract documents required for bidding and constructing the project. Additionally, an Authority to Construct (ATC) and a Permit to Operate (PTO) permit from the North Coast Unified Air Quality Management District (NCUAQMD) will be developed for the new generator and submitted to the NCUAQMD.

The project will then be put out for competitive bid in accordance with Federal and State procurement requirements. The project will be listed in the local newspapers as well as on the California Builder’s Exchange websites and bids solicited for approximately 30 days. The sealed bids will then be opened and the project awarded to the responsive, responsible bidder with the lowest price. It is anticipated that construction will largely consist of:

1. Mobilization, including review of submittals
2. Implementation of required sediment/erosion control

3. Site preparation including preliminary grading
4. Pouring concrete pads for the generator and the fuel storage tank
5. Trenching and installation of new conduit and fuel lines
6. Installation of generator and fuel tank
7. Installation of required electrical and control system wiring and accessories
8. Startup Testing
9. Final grading and driveway/access area paving/seeding
10. Security fencing
11. Site demobilization

Throughout the construction process, an engineer will be onsite to provide Construction Monitoring services. The inspector will maintain detailed notes of the progress of the work, issue any required field orders, prepare and issue necessary change orders, review and approve pay requests, and maintain as-built drawing details.

The Project Closeout/Grant Closeout process will commence upon completion of construction. This task includes the required documentation, reports, notices, drawings and monitoring to complete the project. The project team will prepare final project closeout documents (Deliverables) including photographs, observations logs, submittals and meeting notes, and other documents required by Cal OES/FEMA. In addition, a Notice of Completion will be prepared for approval by the District and submitted to the County for Recording. The project team will prepare and transmit Record Drawings (As-builts) to the District, incorporating any noted field orders, change orders, or other changes deemed necessary and provide hard copies and electronic copies to the District and CalOES/FEMA.

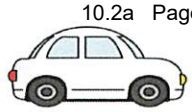
The expected life of the proposed project is 19 years (FEMA standard for generator facilities). The District conducts regular inspections of other District generator systems and will include the new system in those activities. Other maintenance/repair requirements for the generator and fuel tank would be extremely low. The installation of this generator will be effective in minimizing any potable water service interruption due to electrical power loss to approximately 88,000 residents of Humboldt County.

Financial

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
STATEMENT OF FUND BALANCES - PAGE 1 OF 2

BANK ACCOUNT BALANCES AT MONTH-END	May 31, 2021	May 31, 2020
GENERAL ACCOUNTS		
1. US Bank - General Account	2,833,445.55	2,488,150.61
2. US Bank - Xpress BillPay/Electronic Payments Account	2,174.45	2,957.57
Subtotal	2,835,620.00	2,491,108.18
INVESTMENT & INTEREST BEARING ACCOUNTS		
3. US Bank - DWR/SRF Money Markey Accnt	303,358.05	303,316.58
4. US Bank - DWR/SRF Reserve CD Account	547,336.94	547,336.94
5. US Bank - PARS Investment Account	979,453.03	732,104.52
6. L. A. I. F Account - General Account	1,687.78	1,687.78
7. L. A. I. F Account - MSRA Reserve Account	441,819.20	438,093.82
8. CalTRUST - Restricted Inv. Account (Medium Term)	1,320,606.21	1,320,606.21
9. CalTRUST - Unrestricted Inv. Account (Medium Term)	431,274.64	413,153.09
10. CalTRUST - DWFP Reserve Account (FedFund)	240,683.13	239,549.87
11. CalTRUST - ReMat Account (LEAF Fund)	780,315.07	554,692.71
12. CalTRUST - General Reserve Account (Short-Term)	2,382,567.11	1,232,167.00
13. Humboldt County - SRF Loan Payment Account	142,696.05	141,664.22
14. Humboldt County - 1% Tax Account	1,166.69	425,571.24
15. Principle Investment Account	34,918.26	20,623.08
Subtotal	7,607,882.16	6,370,567.06
OTHER ACCOUNTS		
16. ReMat Deposit - Mellon Bank	27,000.00	27,000.00
17. Cash on Hand	650.00	650.00
18. Humboldt County - Investment Account (clsd)	-	-
19. Humboldt County - DWFP Reserve Account (clsd)	-	-
20. Humboldt County - MSRA Reserve Account (clsd)	-	-
21. Humboldt County - ReMat Account (clsd)	-	-
Subtotal	27,650.00	27,650.00
TOTAL CASH	10,471,152.16	8,889,325.24

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
STATEMENT OF FUND BALANCES - PAGE 2 OF 2



FUND BALANCES AT MONTH-END	May 31, 2021	May 31, 2020
RESTRICTED FUNDS - ENCUMBERED		
1. Prior-Year Price Factor 2 Rebate	(2,185.97)	(5,435.09)
2. Prior-Year Restricted AP Encumbrances	(123,357.00)	(49,272.00)
3. Advanced Charges - 12Kv Relocation	-	(162,359.00)
4. Advanced Charges - 18,000lb Excavator	(125,459.00)	(54,343.00)
5. Advanced Charges - 3x Tank Seismic Retrofit	(162,221.26)	(30,000.00)
6. Advanced Charges - Cathodic Protection Project	(91,663.00)	-
7. Advanced Charges - Collector 2 Rebabilitation	(713,181.49)	(385,000.00)
8. Advanced Charges - On-Site Generation of Chlorine	(489,530.00)	-
9. Advanced Charges - Redundant Pipeline	(145,062.00)	-
10. Advanced Charges - TRF Emergency Generator	(297,913.00)	(225,000.00)
11. Advanced Charges - Chlorine Scrubber	-	(350,000.00)
11a. Advanced Funding - Community Power Resiliency	(215,000.00)	-
Subtotal	(2,365,572.72)	(1,261,409.09)
RESTRICTED FUNDS - OTHER		
12. 1% Tax Credit to Muni's	(1,166.69)	(957,134.96)
13. DWR Reserve for SRF Payment	(303,358.05)	(303,316.58)
14. DWR Reserve for SRF Loan	(547,336.94)	(547,336.94)
15. Pension Trust Reserves	(979,453.03)	(732,104.52)
16. ReMat Deposit	(27,000.00)	(27,000.00)
17. HB Retail Capital Replacement Reserves	(92,343.37)	(16,954.57)
Subtotal	(1,950,658.08)	(2,583,847.57)
UNRESTRICTED FUNDS		
BOARD RESTRICTED		
18. MSRA Reserves	(443,506.98)	(439,781.60)
19. DWFP Reserves	(240,683.13)	(239,549.87)
20. ReMat Reserves	(780,315.07)	(554,692.71)
21. Paik-Nicely Development	(4,158.00)	(4,158.00)
22. Principle Investment Reserves	(34,918.26)	(20,623.08)
22a. Northern Mainline Extension Study Prepayment	(5,651.43)	-
Subtotal	(1,509,232.87)	(1,258,805.26)
UNRESTRICTED RESERVES		
23. Accumulation for SRF Payment	(142,696.05)	(278,498.51)
24. Accumulation for Ranney/Techite Payment	14,798.40	10,976.48
25. General Fund Reserves	(4,517,790.84)	(3,523,373.73)
Subtotal	(4,645,688.49)	(3,785,263.32)
TOTAL NET POSITION	(10,471,152.16)	(8,889,325.24)

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

REVENUE REPORT

May 31, 2021

92%

Of Budget Year

A. REVENUE RETURNED TO CUSTOMERS VIA PF2

	MTD RECEIPTS	YTD RECEIPTS	PRIOR YEAR	BUDGET	% OF BUDGET
1. Humboldt Bay Retail Water Revenue	22,778	296,360	358,800	318,394	93%
General Revenue					
Interest	0	0	570	30,000	0%
FCSD Contract (Maint. & Operations)	30,218	199,726	206,489	225,000	89%
Power Sales (Net ReMat)	4,503	126,300	78,916	220,000	57%
Tax Receipts (1% Taxes)	0	198,457	957,135	825,000	24%
2. Miscellaneous Revenue*	251	136,395	44,151	50,000	273%
**Detail on following page*					
TOTAL PF2 REVENUE CREDITS	57,751	957,238	1,646,062	1,668,394	57%

B. DISTRICT REVENUE

	MTD RECEIPTS	YTD RECEIPTS	PRIOR YEAR	BUDGET	% OF BUDGET
3. Industrial Water Revenue					
Harbor District	0	419	549	0	0
Subtotal Industrial Water Revenue	0	419	549	0	0
4. Municipal Water Revenue					
City of Arcata	103,852	1,156,676	1,125,056	1,147,108	101%
City of Blue Lake	14,272	160,480	158,304	161,539	99%
City of Eureka	245,852	2,731,659	2,683,493	2,753,934	99%
Fieldbrook CSD	13,709	139,398	141,101	149,132	93%
Humboldt CSD	81,891	898,942	875,021	886,893	101%
Manila CSD	5,540	63,568	61,787	62,563	102%
McKinleyville CSD	83,256	939,961	895,089	916,164	103%
Subtotal Municipal Water Revenue	548,372	6,090,683	5,939,851	6,077,332	100%
TOTAL INDUSTRIAL & WHOLESALE REVENUE	548,372	6,091,102	5,940,400	6,077,332	100%
5. Power Sales					
Power Sales (ReMat Revenue)	7,552	258,730	159,304	300,000	86%
Interest (ReMat Revenue)	0	5,620	1,930	0	
TOTAL REMAT REVENUE	7,552	264,350	161,234	300,000	88%
6. Other Revenue and Grant Reimbursement					
HB Retail Capital Replacement Rev.	4,044	39,480	38,735		
FCSD Contract (Admin & Overhead)	16,128	84,870	65,386		
FEMA/CalOES Grant Revenue	0	681,064	219,229		
SWRCB In-Stream Flow Grant Revenue	0	44,742	172,457		
Quagga Grant (Pass-Through)	0	0	0		
August Complex Fire Recovery	8,912	22,230	0		
Interest - Muni PF2 Retained	487	25,426	10,237		
Net Increase/(Decrease) Investment Accounts	31,045	182,947	8,738		
TOTAL OTHER/GRANT REVENUE	60,616	1,080,759	514,782		
GRAND TOTAL ALL REVENUE	674,290	8,393,449	8,262,477	8,045,726	104%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MISCELANEOUS REVENUE - DETAIL REPORT
May 31, 2021
B. MISCELLANEOUS RECEIPTS (RETURNED TO CUSTOMERS VIA PF2)

	MTD RECEIPTS	YTD RECEIPTS
Miscelaneous Revenue		
ACWA/JPIA HR LaBounty Safety Award	-	350
ACWA/JPIA Wellness Grant	-	952
ACWA/JPIA Rate Stabilization	-	52,078
Dividend - Principal Life	-	1,196
Fees - Park Use	-	400
Rebate - CALCard	-	962
Rebate - WISE Incentive	-	12,809
Refund - Diesel Fuel Tax	-	136
Refunds - Miscelaneous	-	231
Reimb - Attorney Fees-Kirkpatrick	-	775
Reimb - Attorney Fees-Vivid Green	-	2,161
Reimb - Blue Lake SCADA/Internet Monthly Fees	51	149
Reimb - Blue Lake SCADA Set-Up	-	3,133
Reimb. - Copies & Postage	11	85
Reimb. - Gas	-	-
Reimb. - Telephone	-	2.77
Reimb. - Emp. Vol. Life & AD&D	-	118
Rent - Parking Lot	-	-
Rent & Deposit - Vivid Green	-	5,600
Retirees' Health Ins./COBRA Reimb.	-	48,227
Sale - Surplus Equipment	-	4,708
UB - Bad Debt Recovery	-	161.4
UB - Water Processing Fees	30	480
UB - Hydrant Rental Deposit/Use	-	922
Ruth Area		
Lease - Don Bridge	-	-
Rent - Ruth Cabin	160	760
TOTAL MISCELANEOUS REVENUE	251	136,395

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
ALL - MONTHLY EXPENDITURE REPORT - PAGE 1 OF 3
May 31, 2021

92% 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	191,172.47	1,911,562.84	1,736,602.72	2,241,878	93%
1a. COVID Essental Service Pay*	(9,474.57)	(28,328.88)	-	121,500	23%
2. Wages - Sick	3,699.61	46,235.12	54,019.67		
3. Wages - Vacation	7,172.14	131,891.33	89,826.79		
Subtotal	192,569.65	2,061,360.41	1,880,449.18	2,363,378	87%
4. Wages - Overtime	2,305.89	22,735.01	16,095.71	15,000	
5. Wages - Holiday (Worked)	-	11,048.84	9,378.16	15,000	
Subtotal	2,305.89	33,783.85	25,473.87	30,000	113%
6. Wages - Part-Time	1,507.97	24,440.64	25,744.57	78,551	31%
7. Wages - Shift Differential	796.16	9,726.40	9,710.26	11,000	88%
8. Wages - Standby	7,228.80	75,681.58	81,251.14	81,000	93%
9. Director Compensation	1,520.00	19,600.00	19,120.00	26,000	75%
10. Secretarial Fees	262.50	2,887.50	2,887.50	3,200	90%
11. Payroll Tax Expenses	16,470.52	175,005.91	161,554.48	192,173	91%
11a. COVID Ess. P/R Tax*	(724.80)	(2,167.16)	-	10,000	22%
Subtotal	27,061.15	305,174.87	300,267.95	401,924	76%
Employee Benefits					
12. Health, Life,& LTD Ins.	70,305.43	672,474.61	617,375.63	704,507	95%
13. Air Medical Insurance	-	2,080.00	2,275.00	2,145	97%
14. Retiree Medical Insurance	12,185.29	134,833.62	135,055.74	103,530	130%
15. Employee Dental Insurance	2,875.56	30,340.86	27,760.00	39,399	77%
16. Employee Vision Insurance	612.48	6,606.21	6,588.80	7,350	90%
17. Employee EAP	78.54	885.54	831.39	1,116	79%
18. 457b District Contribution	2,650.00	28,200.00	28,700.00	30,600	92%
19. CalPERS Expenses	26,691.65	496,319.86	449,677.32	547,851	91%
20. Workers Comp Insurance	-	85,008.57	68,038.94	100,961	84%
Subtotal	115,398.95	1,456,749.27	1,336,302.82	1,537,459	95%
TOTAL S.E.B	337,335.64	3,857,068.40	3,542,493.82	4,332,761	89%

*As approved by the Board of Directors on March 11, 2021, COVID Essential Service Pay Increase is funded via District reserves.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MONTHLY EXPENDITURE REPORT - PAGE 2 OF 3
May 31, 2021

92% Of Budget Year

SERVICE & SUPPLY EXPENDITURES (S & S)

	Month-to-Date	Year-to-Date	Prior Year	Budget	% of Budget
Operations & Maintenance					
1. Auto Maintenance	3,862.26	37,308.53	39,533.33	39,700	94%
2. Engineering	2,589.28	19,286.81	36,099.75	75,000	26%
3. Lab Expenses	855.00	14,701.80	11,801.92	13,000	113%
4. Maintenance & Repairs					
General	2,197.28	23,407.05	7,814.53	48,000	49%
TRF	-	7,092.24	15,718.60	20,000	35%
Subtotal	*2,197.28*	*30,499.29*	*23,533.13*	*68,000*	45%
5. Materials & Supplies					
General	3,221.59	61,814.36	43,855.06	38,000	163%
TRF	218.41	11,240.45	33,132.43	35,000	32%
Subtotal	*3,440.00*	*73,054.81*	*76,987.49*	*73,000*	100%
6. Radio Maintenance	553.90	7,533.11	6,149.72	8,500	89%
7. Ruth Lake License	-	1,500.00	1,500.00	1,500	100%
8. Safety Equip./Training					
General	550.47	26,811.12	21,704.39	22,000	122%
TRF	-	678.03	496.71	2,000	34%
Subtotal	*550.47*	*27,489.15*	*22,201.10*	*24,000*	115%
9. Tools & Equipment	453.18	4,065.00	9,492.28	5,000	81%
10. USGS Meter Station	-	15,430.00	-	8,500	182%
Operations Subtotal	*14,501.37*	*230,868.50*	*227,298.72*	*316,200*	73%
General & Administration					
11. Accounting Services	-	4,752.00	7,315.00	18,000	26%
12. Bad Debt Expense	-	-	-	-	0
13. Dues & Subscriptions	-	30,970.32	28,397.20	28,100	110%
14. General Manager Training	734.00	781.00	2,521.09	3,000	26%
15. IT & Software Maintenance	2,218.47	23,339.71	25,929.29	31,000	75%
16. Insurance	-	86,792.90	77,863.95	111,000	78%
17. Internet	891.64	9,231.62	7,233.16	10,000	92%
18. Legal Services	201.50	22,694.00	49,174.50	35,000	65%
19. Miscellaneous	405.00	3,485.21	14,847.33	11,500	30%
20. Office Building Maint.	3,038.64	18,481.78	14,840.85	16,000	116%
21. Office Expense	2,922.48	44,135.88	56,238.23	40,500	109%
22. Professional Services	-	3,165.72	5,152.62	20,000	16%
23. Property Tax	-	945.00	945.00	1,000	95%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
MONTHLY EXPENDITURE REPORT - PAGE 3 OF 3
May 31, 2021

92% Of Budget Year

SERVICE & SUPPLY EXPENDITURES (con't)	Month-to-Date	Year-to-Date	Prior Year	Budget	% of Budget
24. Regulatory Agency Fees	100.00	130,522.42	116,878.01	141,000	93%
25. Ruth Lake Programs	-	-	-	5,000	0%
26. Safety Apparel	-	2,925.68	3,592.93	3,000	98%
27. Technical Training	-	1,010.00	7,861.86	14,500	7%
28. Telephone	2,605.28	32,912.77	43,062.83	49,000	67%
29. Travel & Conference	800.50	1,031.50	13,306.13	25,000	4%
Gen. & Admin. Subtotal	*13,917.51*	*417,177.51*	*475,159.98*	*562,601*	74%
Power					
30. Essex - PG & E	56,366.62	644,797.41	627,245.63		
31. 2Mw Generator Fuel	3,192.62	6,551.10	21,196.12		
Subtotal Essex Pumping	59,559.24	651,348.51	648,441.75		
32. All other PG & E	9,164.27	98,807.55	82,947.36		
Subtotal All Power	*68,723.51*	*750,156.06*	*731,389.11*	764,500	98%
Total Service and Supplies incl. Power	**97,142.39**	**1,398,202.07**	**1,433,847.81**	**1,643,301**	85%

PROJECTS, FIXED ASSETS & CONSULTING SERVICES

Month-to-Date	Year-to-Date	Budget	% of Budget
61,291.00	1,732,969.00	11,116,238	16%

GRAND TOTAL EXPENSES	495,769.03	6,988,239.47	4,976,341.63	17,092,300	41%
33. Debt Service - SRF Loan	-	273,668.48	273,668.48	547,337	50%
34. Debt Service - US Bank	-	162,188.10	162,188.10	162,200	100%

TOTAL EXPENSES WITH DEBT SERVICE

505,611.89	**7,450,412.69**	**5,412,198.21**	**17,801,837**	

OTHER EXPENSES

35. ReMat Consultant Exp.	9,842.86	26,158.76	16,342.54	
36. Capital Replacement Exp.	-	157.88	-	

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

PROJECT PROGRESS REPORT

May 31, 2021

92% Of Budget Year

A. CAPITAL PROJECTS

	ACTIVE GRANT FUNDED CAPITAL PROJECTS	MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
1	Grant - 12kV Switchgear Relocation *($3M - FEMA Grant)*	8,913	421,554	2,517,062	17%
2	Grant - Collector 2 Rehabilitation *($1.6M - NCRP Prop1 Grant)*	3,535	95,156	1,600,000	6%
3	Grant - 3x Tank Seismic Retro *($3.5M - FEMA Grant, Phase 1 Approved)*	6,202	226,117	329,000	69%
3a	Grant - Community Power Resiliency *($215,,000 CalOES Grant)*	0	2,988	0	0
3b	Grant - Collector Mainline Redundancy	0	775	0	0
	NON-GRANT FUNDED CAPITAL PROJECTS				
4	Fiber Optic Link - Collector 2 (Phase 1)	0	36,472	65,000	56%
5	On-Site Generation of Chlorine *($850k - FY21-22, Treatment Facility Project)*	0	0	850,000	0%
6	Techite Intertie Location Abandonment	0	2,494	12,000	21%
7	FY21 Mainline Valve Replacement	0	0	31,750	0%
8	Main Office Emergency Generator	0	37,460	37,250	101%
9	Transformer at Hydro Plant	0	0	160,000	0%
10	Interuptor Switchgear Panel	0	0	28,000	0%
11	Headquarters Remodel	0	2	120,000	0%
12	Headquarters Fire System & Pump House	3,079	3,079	4,500	68%
13	Headquarters & Bunkhouse Generator	487	5,814	15,000	39%
14	Curbing on Mad River Road	0	200	5,800	3%
14a	Tesla Battery Project - Essex	0	608	0	0
	TOTAL CAPITAL PROJECTS	22,215	832,717	5,775,362	14%

B. EQUIPMENT AND FIXED ASSET PROJECTS

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
15	FY21 Replace Admin Computers (Ops)	0	1,617	2,500	65%
16	Ruth Vehicle (Unit 6)	0	43,168	62,500	69%
17	High Pressure Washer	0	11,859	11,250	105%
18	Portable Sandblasting Unit	0	4,195	4,750	88%
19	Wheels/Tires on Zieman Trailer	0	2,868	3,250	88%
20	Ergonomic Desks for AOS, WOS, Electrical Shop	0	4,114	4,750	87%
21	2 New Laptop Computers	0	2,924	3,000	97%
22	Tractor Mower	0	7,144	8,500	84%
23	Tools & Equipment Storage for Shop	0	2,320	2,750	84%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 2 OF 5 *92% Of Budget Year*
May 31, 2021

B. EQUIPMENT AND FIXED ASSET PROJECTS (con't)

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
24	Trench Shoring Equipment	0	3,184	3,750	85%
25	Portable Electric Valve Operator	0	11,651	11,000	106%
26	Hazardous Spill Containment Equipment	0	2,452	2,500	98%
27	Tractor	0	59,841	70,750	85%
28	Tilt-Deck Equipment Trailer	0	11,525	12,750	90%
29	Hydraulic Bolt Torque Machine	0	0	12,000	0%
30	Sieve Shaker	0	1,828	2,500	73%
	(Treatment Facility Project)				
31	Replace Admin Computers (Office)	0	4,021	5,500	73%
32	Ergonimic Desk for Customer Service Desk	0	1,254	3,000	42%
33	Front Office Doors	0	0	6,000	0%
34	Base Radio Units for HQ & Relief Operator	0	3,161	3,750	84%
35	Howell Bunger Valve Cylinders	0	7,341	8,750	84%
36	Ruth Property Maintenance Equipment	0	2,968	4,000	74%
37	Ruth HQ Shop Lighting Upgrade/Equipment	(311)	5,352	6,250	86%
38	Log Boom Inspection Equipment	0	1,694	2,500	68%
	TOTAL EQUIPMENT & FIXED ASSET PROJECTS	(311)	196,481	258,250	76%

C. MAINTENANCE PROJECTS

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
39	FY21 Pipeline Maintenance	0	7,013	12,750	55%
40	FY21 12kV System Maintenance	0	6,050	4,000	151%
41	FY21 Main Line Meter Flow Calculation	0	5,288	14,000	38%
42	FY21 Technical Support/Software Updates	9,331	17,846	17,250	103%
43	FY21 Generator Services	0	828	3,500	24%
44	FY21 TRF Generator Services	0	13	500	3%
	(Treatment Facility Project)				
45	FY21 Hazard/Diseased Tree Removal	0	48	8,000	1%
46	FY21 Cathotic Protection	0	0	6,500	0%
47	FY21 Maintenance Emergency Repairs	0	21,802	50,000	44%
48	FY21 Fleet Paint Repairs	0	738	5,000	15%
49	Surge Tank Refurbishments	0	1,187	3,000	40%
50	Microsoft Office Package Upgrade	0	6,885	8,250	83%
51	FY21 Pipeline Repair Parts	0	0	12,250	0%
52	Collector Lube Oil Reservoir Replacement	0	13,167	16,000	82%
53	Oil Filter Crushing Station	0	1,783	2,500	71%
54	35kW Voltage Selector Switch	0	0	5,500	0%
55	Fence/Gate-DG Fairhaven Fire Service Meter	0	1,720	6,400	27%
56	FY21 TRF Limitorque Valve Retrofit Supplies	0	0	14,500	0%
	(Treatment Facility Project)				

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

PROJECT PROGRESS REPORT - PAGE 3 OF 5 *92% Of Budget Year*

May 31, 2021

C. MAINTENANCE PROJECTS (con't)

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
57	FY21 Chemical Pump Spare Parts Inventory *(Treatment Facility Project)*	0	0	5,250	0%
58	Emergency Sample Sump Pump *(Treatment Facility Project)*	0	6,080	6,250	97%
59	TRF Process Pumps Rebuild Kit Inventory *(Treatment Facility Project)*	0	7,754	8,250	94%
60	Sludge Bed Lighting Project *(Treatment Facility Project)*	0	4,112	4,250	97%
61	Emergency Limitorque Gear Boxes *(Treatment Facility Project)*	0	0	14,750	0%
62	Brush Abatement - Ruth Hydro	3,400	3,400	6,500	52%
63	Howell Bunger Valve Inspection	0	0	1,110	0%
64	Ruth LTO Insurance	0	0	5,000	0%
65	Log Boom Inspection	0	260	1,000	26%
66	FY21 Abandoned Vehicle Abatement - Ruth	0	0	4,000	0%
67	Log Boom Hardware Replacement	0	4,183	7,000	60%
	TOTAL MAINTENANCE PROJECTS	12,731	110,160	253,260	43%

D. PROFESSIONAL & CONSULTING SERVICES

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
68	FY21 Crane Testing/Certification	0	8,248	10,000	82%
69	FY21 Chlorine System Maintenance	10	7,900	16,750	47%
70	FY21 Backflow Meter Training	0	1,780	3,000	59%
71	Hydro Plant Annual Elect. & Maintenance Inspection	0	0	2,050	0%
72	FY21 Essex Mad River Cross-Sectional Survey	0	7,803	10,000	78%
73	FY21 Technical Training	0	9,506	23,250	41%
74	FY21 O & M Training	0	0	20,000	0%
75	FY21 Essex Server Backup System (Monthly Fees)	0	8,580	8,750	98%
76	FY21 Public Education Funds	0	0	5,000	0%
77	Water Quality Monitoring Plan	0	2,704	30,000	9%
78	FY21 Electrical Techinical Training	2,088	12,023	13,250	91%
79	FY21 Annual Section 115 Pension Trust Contribution	0	50,000	50,000	100%
80	FY21 Grant Application Assistance	0	9,666	20,000	48%
81	Comp. Domestic Pipeline Fitness Eval.	0	0	195,000	0%
82	Staff Gauge Survey	0	3,800	3,800	100%
83	Retail Rate Study Assistance	0	3,857	5,000	77%
84	FERC Part 12 - Plunge Pool Underwater Inspection	0	5,200	13,500	39%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 4 OF 5 *92% Of Budget Year*
May 31, 2021

D. PROFESSIONAL & CONSULTING SERVICES (CON'T)

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
85	FERC Part 12 - Geologist Inspection	308	6,925	6,800	102%
86	FERC Part 12 - Ind. Consultant Insp. (FY22)	564	7,178	20,000	36%
87	FERC - Dam Safety Surveilance & Monitoring Report	0	10,664	8,000	133%
88	FERC - Dam Safety Engineer	2,516	9,959	12,000	83%
89	Dam Spillway Wall Monument Survey	0	12,599	7,600	166%
90	Spillway Repair, Inspection & Reporting Assistance	0	210	10,000	2%
	TOTAL PROF/CONSULTING SERVICES	5,485	178,601	493,750	36%

E. INDUSTRIAL SYSTEM PROJECTS

91	Maintain Water Supply to PS6 during Low-Flow	0	0	13,250	0.0%
	TOTAL INDUSTRIAL SYSTEM PROJECTS	0	0	13,250	0%

F. CARRY-OVER PROJECTS FROM PRIOR YEAR

92	Collector 5 Security & Anti-Vandalism Measures	0	0	7,500	0%
	TOTAL CARRYOVER PROJECTS	0	0	7,500	0%

G. PROJECTS NOT CURRENTLY CHARGED TO MUNICIPAL CUSTOMERS

		MTD EXPENSES	YTD TOTAL	BUDGET	% OF BUDGET
93	18,000 Lb. Excavator *(Advanced Charges)*	0	97,341	222,800	44%
94	HB Retail Radio-Read Meter Project *(HB Retail Capital Replacement Funds)*	0	0	7,500	0%
95	Streambed Flow Enhancement Grant *(DWR Grant)*	0	17,404	467,969	4%
96	Refurbish PS-6 (Phase 1) *(EDA Grant & Reserves)*	0	2,543	3,500,000	0%
97	I/W Reservoir Fencing Repairs/Replacement *(Reserves)*	0	810	11,250	7%
98	I/W System Evaluation Memo *(Reserves)*	0	0	26,000	0%
99	PS6 Gravel Bar Work *(Reserves)*	0	0	76,100	0%
100	Industrial System Assistance *(Reserves)*	0	886	10,000	9%
101	Industrial/Domestic System Intertie *(Reserves)*	0	0	11,000	0%
101A	Fire Disaster Recovery 2020 *(Reserves)*	312	77,343	0	0%
101B	Grant - FEMA - COVID-19 Pandemic *(Reserves)*	239	6,787	0	0%
	TOTAL NOT CHARGED TO CUSTOMERS	551	203,114	4,332,619	5%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
PROJECT PROGRESS REPORT - PAGE 5 OF 5
May 31, 2021

92% Of Budget Year

H. ADVANCED CHARGES & DEBIT SERVICE FUNDS COLLECTED - FY21

	MTD	YTD	BUDGET	% BUDGET
102 Grant - Collector Mainline Redundancy Pipeline *($3.1M - PENDING FEMA Grant)*	4,167	45,833	50,000	92%
103 Grant - Collector 2 Rehabilitation ($1.2M - NCRP Prop1 Grant)	16,667	183,333	200,000	92%
104 Grant - 3x Tank Seismic Retro ($3.5M - FEMA Grant, Phase 1 Approved)	16,667	183,333	200,000	92%
105 Grant - TRF Generator ($1.9M - PENDING FEMA Grant)	2,083	22,917	25,000	92%
106 Cathodic Protection Project ($405k, FY22)	8,333	91,667	100,000	92%
107 On-Site Generation of Chlorine ($850k, FY21-22)	6,667	73,333	80,000	92%
108 Ranney Collector 3/Techite Debit Service Funds	14,745	162,200	162,200	100%
TOTAL ADVANCED CHARGES COLLECTED - FY21	69,329	762,617	817,200	93%

PROJECT PROGRESS REPORT SUMMARY OF ALL ACTIVITY

CUSTOMER CHARGES	MTD	YTD	BUDGET	% BUDGET
TOTAL NON-GRANT FUNDED CAPITAL PROJECTS*	3,565	89,891	479,300	19%
TOTAL EQUIPMENT & FIXED ASSET PROJECTS	(311)	196,481	258,250	76%
TOTAL MAINTENANCE PROJECTS	12,731	110,160	253,260	43%
TOTAL PROF/CONSULTING SERVICES	5,485	178,601	493,750	36%
TOTAL INDUSTRIAL SYSTEM PROJECTS	0	0	13,250	0%
TOTAL CARRYOVER PROJECTS	0	0	7,500	0%
TOTAL ADVANCED CHARGES/DEBIT SERVICE - FY21	69,329	762,617	817,200	93%
TOTAL CUSTOMER CHARGES	$90,798	$1,337,750	$2,322,510	58%

**EXCLUDES ON-SITE GENERATION OF CHLORINE*

NON-CUSTOMER CHARGES (CURRENT FY)	MTD	YTD	BUDGET	% BUDGET
TOTAL GRANT FUNDED CAPITAL PROJECTS	18,650	742,826	4,446,062	17%
TOTAL NON-CUSTOMER CHARGES	551	203,114	4,332,619	5%
TOTAL USE OF ENCUMBERED FUNDS	10,310	105,948	229,305	46%
TOTAL NON-CUSTOMER CHARGES	$29,511	$1,051,888	$9,007,986	12%
GRAND TOTAL PROJECT BUDGET ACTIVITY	$120,309	$2,389,638	$11,330,496	21%

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
ENCUMBERED FUNDS RECONCILIATION REPORT
May 31, 2021

		MTD EXPENSES	YTD TOTAL	AMOUNT ENCUMBERED	REMAINING
	A. CAPITAL PROJECTS				
1	TRF Line Shed 5	0	8,771	14,950	6,179
	B. EQUIPMENT & FIXED ASSET PROJECTS				
2	Chlorine System Maintenance	0	3,050	3,050	(0)
3	Col. 2 Underground 12Kv Power/Fiber Optic	10,310	12,780	21,460	8,680
4	Eureka Office Carpeting	0	13,500	14,500	1,000
5	Eureka Office ADA Upgrades	0	3,275	3,275	0
6	Fleet Maintenance Equipment	0	0	300	300
7	Meter Reader Handheld Unit	0	3,100	4,500	1,400
8	Replacement of UPS's (Phase 2)	0	27,434	27,950	516
	C. MAINTENANCE PROJECTS				
9	Collector 1 Electrical Upgrade 2018/19	0	0	31,000	31,000
10	Gates at I/W Reservoir and SBPS	0	385	800	415
11	Ruth HQ Dock Decking	0	1,219	2,200	981
12	Ruth Slide Gate Hydraulic Oil	0	746	1,950	1,204
	D. PROFESSIONAL & CONSULTING SERVICES				
13	Hydro Plant Electrical and Maintenance Insp.	0	0	2,000	2,000
14	Ruth Hydro Relay Replacement-Phase 2	0	27,367	87,000	59,633
15	FY20 Abandoned Vehicle Abatement - Ruth	0	0	10,000	10,000
	E. FY20 SERVICE & SUPPLY BUDGET				
16	MAINTENANCE & REPAIRS	0	2465	2,465	0
17	MATERIALS & SUPPLIES	0	50	50	0
18	SAFETY EQUIP & TRAINING	0	500	550	50
19	ACCOUNTING	0	1305	1,305	0
	ENCUMBERED FUNDS TOTAL	10,310	105,948	229,305	123,357

Humboldt Bay Municipal Water District | --Monthly Expenses by Vendor Detail Report-- Report dates: 5/1/2021-5/31/2021 | Page: 1 Jun 01, 2021 04:01PM

Vendor Name	Date Paid	Description	Amount Paid
101 NETLINK			
101 NETLINK	05/05/2021	*Ruth Hydro Data Link/Internet*	180.00
Total 101 NETLINK:			180.00
ACWA/JPIA			
ACWA/JPIA	05/20/2021	*RETIREE MEDICAL*	12,049.25
ACWA/JPIA	05/20/2021	*COBRA Dental*	98.92
ACWA/JPIA	05/20/2021	*COBRA Vision*	37.12
Total ACWA/JPIA:			12,185.29
Advanced Security Systems			
Advanced Security Systems	05/05/2021	*Ruth Hydro Quarterly Alarm System Monitoring*	79.50
Total Advanced Security Systems:			79.50
Altec Industries, Inc			
Altec Industries, Inc	05/05/2021	*Altec chipper maintenance*	66.68
Altec Industries, Inc	05/05/2021	*Altec chipper maintenance*	355.76
Total Altec Industries, Inc:			422.44
Asbury Environmental Services			
Asbury Environmental Services	05/19/2021	*dispose of oil and gas filters*	55.00
Asbury Environmental Services	05/19/2021	*dispose of waste oil*	170.00
Asbury Environmental Services	05/19/2021	*dispose of oil waste and absorbent pads*	278.17
Asbury Environmental Services	05/27/2021	*Annual Ruth Maintenance- Dispose of waste oil from slide gate c*	925.00
Total Asbury Environmental Services:			1,428.17
AT & T			
AT & T	05/19/2021	*SIMS Service*	315.00
AT & T	05/19/2021	*Eureka/Essex Landline*	35.37
AT & T	05/19/2021	*Arcata/Essex Landline*	35.37
AT & T	05/19/2021	*Samoa/Essex Landline*	237.17
AT & T	05/19/2021	*Eureka office/modem*	57.29
AT & T	05/19/2021	*Eureka Office Alarm Line*	52.86
AT & T	05/19/2021	*Samoa Booster Pump Station*	55.42
AT & T	05/19/2021	*Valve Building - Samoa*	57.29
AT & T	05/19/2021	*Eureka Office*	217.19
AT & T	05/19/2021	*TRF*	51.85
AT & T	05/19/2021	*Ruth Hydro Data Line*	52.86
AT & T	05/19/2021	*Essex office/Modem/Alarm System*	52.86
Total AT & T:			1,220.53
AT&T Advertising Solutions			
AT&T Advertising Solutions	05/27/2021	*white page listing*	21.00
Total AT&T Advertising Solutions:			21.00
AT&T Long Distance			
AT&T Long Distance	05/07/2021	*Eureka Office Long Distance*	75.22
AT&T Long Distance	05/19/2021	*Valve Building-Samoa Long Distance*	120.64
AT&T Long Distance	05/19/2021	*Essex Control Long Distance*	22.38
AT&T Long Distance	05/19/2021	*Eureka Office Long Distance*	7.47

Vendor Name	Date Paid	Description	Amount Paid
AT&T Long Distance	05/19/2021	*TRF Long Distance*	77.21
AT&T Long Distance	05/19/2021	*Ruth Hydro Long Distance*	207.23
Total AT&T Long Distance:			510.15
AVO Training Institute			
AVO Training Institute	05/27/2021	*Electrical Substation technical training*	1,950.00
Total AVO Training Institute:			1,950.00
BDI - M&S Arcata			
BDI - M&S Arcata	05/27/2021	*maintenance supplies*	50.29
BDI - M&S Arcata	05/27/2021	*Annual Ruth Maintenance*	150.86
Total BDI - M&S Arcata:			201.15
Ben Boak			
Ben Boak	05/27/2021	*Ruth area Fire Disaster Recovery - Boat Rental*	275.00
Total Ben Boak:			275.00
Bruce Brashear			
Bruce Brashear	05/19/2021	*expense reimbursement - work crew supplies Ruth HQ garage re*	107.35
Bruce Brashear	05/27/2021	*expense reimbursement - work crew supplies Ruth HQ garage re*	21.89
Total Bruce Brashear:			129.24
Buckles-Smith			
Buckles-Smith	05/27/2021	*Essex Control Technical Support and Software Updates*	9,330.68
Total Buckles-Smith:			9,330.68
Buddy's Auto Center, Inc			
Buddy's Auto Center, Inc	05/27/2021	*Unit 9 tow to Essex*	125.00
Total Buddy's Auto Center, Inc:			125.00
Chris Merz			
Chris Merz	05/27/2021	*Expense Reimbursement for Work Crew - Ruth HQ Generator &*	124.83
Total Chris Merz:			124.83
City of Eureka			
City of Eureka	05/05/2021	*Eureka office water/sewer*	81.76
Total City of Eureka:			81.76
Coastal Business Systems Inc.			
Coastal Business Systems Inc.	05/19/2021	*Eureka office copy and fax machine*	1,010.99
Total Coastal Business Systems Inc.:			1,010.99
Court Ordered Debt Collections			
Court Ordered Debt Collections	05/05/2021		317.00
Court Ordered Debt Collections	05/20/2021		267.00

Vendor Name	Date Paid	Description	Amount Paid
Total Court Ordered Debt Collections:			584.00
Dave Perkins			
Dave Perkins	05/05/2021	*auto mileage reimbursement*	32.59
Total Dave Perkins:			32.59
David J. Corral			
David J. Corral	05/27/2021	*expense reimbursement -Electrical Technical Training*	137.88
Total David J. Corral:			137.88
Drake Vegetation Management, Inc			
Drake Vegetation Management, Inc	05/07/2021	*Ruth Hydro brush abatement*	3,400.00
Total Drake Vegetation Management, Inc:			3,400.00
Englund Marine Supply			
Englund Marine Supply	05/19/2021	*Annual Ruth Maintenance - Penstock*	20.33
Total Englund Marine Supply:			20.33
Eureka Oxygen			
Eureka Oxygen	05/19/2021	*cylinder rental*	108.50
Total Eureka Oxygen:			108.50
Eureka Readymix			
Eureka Readymix	05/19/2021	*Ruth HQ garage repair/Ruth Bunkhouse ramp landing and drain*	1,483.10
Total Eureka Readymix:			1,483.10
Fastenal Company			
Fastenal Company	05/27/2021	*safety supplies*	36.78
Fastenal Company	05/27/2021	*Domestic Water Tank maintenance*	96.39
Fastenal Company	05/27/2021	*Annual Ruth Maintenance - Penstock*	101.78
Fastenal Company	05/27/2021	*Domestic Water Tank maintenance*	21.23
Total Fastenal Company:			256.18
FEDEX			
FEDEX	05/19/2021	*Shipp charge - Unit 4 transmission repair*	17.10
FEDEX	05/19/2021	*Ship Humboldt Bay Retail Backflow inspection tool for calibrati*	4.02
FEDEX	05/19/2021	*Ship Fieldbrook-Glendale CSD backflow inspection tool for cali*	11.45
Total FEDEX:			32.57
Frontier Communications			
Frontier Communications	05/25/2021	*Ruth HQ Phone*	55.76
Frontier Communications	05/25/2021	*Ruth Hydro/Ruth Dataline*	183.14
Total Frontier Communications:			238.90
GEI Consultants, Inc			
GEI Consultants, Inc	05/27/2021	*FERC Dam Safety Engineer*	2,516.00

Vendor Name	Date Paid	Description	Amount Paid
Total GEI Consultants, Inc:			2,516.00
GHD			
GHD	05/27/2021	*Reservoirs 3X Seismic Retrofit Grant*	6,202.30
GHD	05/27/2021	*General Engineering - Ruth*	441.25
GHD	05/27/2021	*General Engineering - Essex*	279.76
GHD	05/27/2021	*General Engineering - Eureka*	796.88
GHD	05/27/2021	*General Engineering - Ruth Hydro*	1,071.39
GHD	05/27/2021	*Collector 2 Underground Power and Fiber Optic*	10,310.00
GHD	05/27/2021	*12KV Switch Gear Replacement - Grant*	8,913.00
GHD	05/27/2021	*Collector 2 Rehabilitation - Grant*	3,534.80
Total GHD:			31,549.38
Harbor Freight Tools			
Harbor Freight Tools	05/19/2021	*maintenance tools*	37.87
Total Harbor Freight Tools:			37.87
Health Equity Inc			
Health Equity Inc	05/20/2021	*District HSA Contributions - 5 employees*	2,506.85
Health Equity Inc	05/07/2021	*HSA Admin Fee - 2 employees*	5.90
Health Equity Inc	05/07/2021	*HSA Admin Fee 8 employees*	23.60
Total Health Equity Inc:			2,536.35
Hensel Hardware			
Hensel Hardware	05/27/2021	*maintenance supplies*	12.98
Hensel Hardware	05/19/2021	*Annual Ruth Maintenance - Ruth Hydro Generator*	36.39
Hensel Hardware	05/19/2021	*Annual Ruth Maintenance*	35.75
Hensel Hardware	05/27/2021	*maintenance shop bathroom repair*	104.88
Hensel Hardware	05/27/2021	*Chlorine system maintenance*	9.75
Total Hensel Hardware:			199.75
Henwood Associates, Inc			
Henwood Associates, Inc	05/07/2021	*Consultant Services Agreement- March 2021*	2,620.80
Total Henwood Associates, Inc:			2,620.80
Humboldt County Treasurer			
Humboldt County Treasurer	05/27/2021	*Fund No 3876 Account 800870*	45,611.43
Total Humboldt County Treasurer:			45,611.43
Humboldt Redwood Company, LLC			
Humboldt Redwood Company, LLC	05/19/2021	*Mt Pierce Lease site*	296.40
Total Humboldt Redwood Company, LLC:			296.40
Industrial Electric			
Industrial Electric	05/27/2021	*Ruth HQ and Bunkhouse Generator*	37.63
Total Industrial Electric:			37.63

Vendor Name	Date Paid	Description	Amount Paid
Janet Powell			
Janet Powell	05/05/2021	*auto mileage reimbursement*	152.21
Total Janet Powell:			152.21
JTN Energy, LLC			
JTN Energy, LLC	05/07/2021	*Consultant Services Agreement - March 2021*	2,620.80
Total JTN Energy, LLC:			2,620.80
Kernen Construction			
Kernen Construction	05/19/2021	*material for Ruth HQ generator slab*	186.30
Kernen Construction	05/27/2021	*maintenance supplies*	178.76
Total Kernen Construction:			365.06
Matthew Davis			
Matthew Davis	05/27/2021	*expense reimbursement - Work Crew Ruth HQ garage/bunkhouse*	102.19
Total Matthew Davis:			102.19
McMaster-Carr Supply			
McMaster-Carr Supply	05/27/2021	*Ruth Penstock safety inspection*	205.77
Total McMaster-Carr Supply:			205.77
Miller Farms Nursery			
Miller Farms Nursery	05/27/2021	*equipment maintenance*	68.64
Total Miller Farms Nursery:			68.64
Mission Linen			
Mission Linen	05/05/2021	*Uniform Rental*	123.85
Mission Linen	05/05/2021	*maintenance supplies*	31.67
Mission Linen	05/05/2021	*Uniform Rental*	109.20
Mission Linen	05/05/2021	*maintenance supplies*	49.26
Mission Linen	05/05/2021	*Uniform Rental*	123.85
Mission Linen	05/05/2021	*Uniform Rental*	98.16
Mission Linen	05/05/2021	*maintenance supplies*	31.67
Total Mission Linen:			567.66
Mitchell, Brisso, Delaney & Vrieze			
Mitchell, Brisso, Delaney & Vrieze	05/19/2021	*Legal Services- Ruth Area Vivid Green April 2021*	31.00
Mitchell, Brisso, Delaney & Vrieze	05/19/2021	*Legal Services- April 2021*	170.50
Total Mitchell, Brisso, Delaney & Vrieze:			201.50
Napa Auto Parts			
Napa Auto Parts	05/19/2021	*Ruth HQ portable generator maint*	42.43
Napa Auto Parts	05/19/2021	*maintenance tools*	190.95
Napa Auto Parts	05/27/2021	*maintenance supplies*	54.14
Napa Auto Parts	05/27/2021	*Unit 15 service*	36.58
Napa Auto Parts	05/27/2021	*Unit 15 service*	49.62
Total Napa Auto Parts:			373.72

Vendor Name	Date Paid	Description	Amount Paid
North Coast Laboratories			
North Coast Laboratories	05/07/2021	*lab tests - Humboldt Bay Retail*	95.00
North Coast Laboratories	05/07/2021	*lab tests - Fieldbrook-Glendale CSD*	95.00
North Coast Laboratories	05/07/2021	*lab tests - Humboldt Bay Retail*	285.00
North Coast Laboratories	05/07/2021	*lab tests - Humboldt Bay Retail*	95.00
North Coast Laboratories	05/07/2021	*lab tests - Fieldbrook-Glendale CSD*	95.00
North Coast Laboratories	05/07/2021	*lab tests - Humboldt Bay Retail*	95.00
North Coast Laboratories	05/07/2021	*lab tests - Fieldbrook-Glendale CSD*	95.00
Total North Coast Laboratories:			855.00
Northern California Safety Consortium			
Northern California Safety Consortium	05/07/2021	*monthly membership fee*	75.00
Total Northern California Safety Consortium:			75.00
O&M Industries			
O&M Industries	05/07/2021	*Eureka office HVAC maintenance*	80.00
Total O&M Industries:			80.00
Pacific Gas & Electric Co.			
Pacific Gas & Electric Co.	05/05/2021	*Ruth HQ*	49.29
Pacific Gas & Electric Co.	05/05/2021	*Ruth Bunkhouse*	47.98
Pacific Gas & Electric Co.	05/19/2021	*Ruth Hydro Valve Control*	26.23
Pacific Gas & Electric Co.	05/19/2021	*Eureka Office*	534.92
Pacific Gas & Electric Co.	05/19/2021	*Jackson Ranch Rectifier*	16.08
Pacific Gas & Electric Co.	05/19/2021	*299 Rectifier*	131.25
Pacific Gas & Electric Co.	05/19/2021	*West End Road Rectifier*	129.00
Pacific Gas & Electric Co.	05/19/2021	*TRF*	7,535.95
Pacific Gas & Electric Co.	05/19/2021	*Ruth Hydro Valve Control*	28.32
Pacific Gas & Electric Co.	05/19/2021	*Samoa Booster Pump Station*	633.31
Pacific Gas & Electric Co.	05/19/2021	*Samoa Dial Station*	31.94
Pacific Gas & Electric Co.	05/19/2021	*Essex Pumping 4/1 -4/ 30/2021*	56,366.62
Total Pacific Gas & Electric Co.:			65,530.89
Pape Material Handling			
Pape Material Handling	05/27/2021	*John Deere 110 Backhoe maintenance*	114.55
Total Pape Material Handling:			114.55
Picky, Picky, Picky, Inc			
Picky, Picky, Picky, Inc	05/19/2021	*Annual Ruth Maintenance*	75.93
Total Picky, Picky, Picky, Inc:			75.93
Pitney Bowes			
Pitney Bowes	05/19/2021	*refill postage*	500.00
Total Pitney Bowes:			500.00
PitStop Cleaning`			
PitStop Cleaning`	05/07/2021	*Eureka office cleaning*	160.00
Total PitStop Cleaning`:			160.00

Vendor Name	Date Paid	Description	Amount Paid
Platt Electric Supply			
Platt Electric Supply	05/19/2021	*Annual Ruth Maintenance-Penstock Inspection*	54.81
Total Platt Electric Supply:			54.81
Recology Arcata			
Recology Arcata	05/27/2021	*Essex Garbage/Recycling Service*	632.60
Total Recology Arcata:			632.60
Recology Humboldt County			
Recology Humboldt County	05/19/2021	*Eureka office garbage/recycling service*	91.71
Total Recology Humboldt County:			91.71
SCBA Safety Check, Inc			
SCBA Safety Check, Inc	05/19/2021	*SCBA maintenance*	88.22
Total SCBA Safety Check, Inc:			88.22
Sequoia Gas			
Sequoia Gas	05/27/2021	*Refill Ruth HQ Propane*	156.45
Sequoia Gas	05/27/2021	*Refill Ruth Bunkhouse propane*	126.42
Total Sequoia Gas:			282.87
Shafer's Ace Hardware			
Shafer's Ace Hardware	05/05/2021	*maintenance supplies*	10.76
Shafer's Ace Hardware	05/05/2021	*Annual Ruth Maintenance*	52.54
Total Shafer's Ace Hardware:			63.30
SHN Consulting Engineers & Geologists			
SHN Consulting Engineers & Geologists	05/25/2021	*Geologic inspection of abutment slopes R.W. Matthews Dam*	307.50
Total SHN Consulting Engineers & Geologists:			307.50
Sitestar Nationwide Internet			
Sitestar Nationwide Internet	05/19/2021	*Essex Internet*	52.90
Total Sitestar Nationwide Internet:			52.90
Streamline			
Streamline	05/05/2021	*Website maintenance membership fee*	450.00
Total Streamline:			450.00
Sudden Link			
Sudden Link	05/05/2021	*Fieldbrook-Glendale CSD Internet*	334.11
Sudden Link	05/07/2021	*Essex internet*	198.26
Sudden Link	05/07/2021	*Essex Phones*	106.64
Sudden Link	05/07/2021	*TRF Internet*	25.27
Sudden Link	05/07/2021	*TRF Internet - Blue Lake SCADA Monitoring*	50.55
Sudden Link	05/07/2021	*TRF Internet - Fieldbrook-Glendale CSD*	50.55
Sudden Link	05/19/2021	*Eureka Internet*	208.45

Vendor Name	Date Paid	Description	Amount Paid
Total Sudden Link:			973.83
SWRCB-DWOCP			
SWRCB-DWOCP	05/25/2021	*Water Distribution Exam Fee D1- Matthew Davis*	50.00
Total SWRCB-DWOCP:			50.00
T.P. Tire Service, Inc			
T.P. Tire Service, Inc	05/27/2021	*Unit 15 flat repair*	20.00
Total T.P. Tire Service, Inc:			20.00
The Mill Yard			
The Mill Yard	05/19/2021	*Annual Ruth maintenance*	74.82
The Mill Yard	05/27/2021	*Ruth HQ garage repair*	496.15
The Mill Yard	05/27/2021	*Ruth HQ garage repair*	244.66-
The Mill Yard	05/27/2021	*Ruth HQ maintenance supplies*	68.27
The Mill Yard	05/27/2021	*Ruth HQ maintenance*	65.46
The Mill Yard	05/27/2021	*Ruth HQ and Bunkhouse Generator*	369.98
The Mill Yard	05/27/2021	*Ruth HQ and Bunkhouse Generator*	79.19
The Mill Yard	05/27/2021	*Ruth HQ garage repair*	47.07
The Mill Yard	05/27/2021	*Essex Building Maintenance*	4.33
The Mill Yard	05/27/2021	*Maintenance supplies*	30.36
The Mill Yard	05/27/2021	*Maintenance supplies*	17.34
The Mill Yard	05/19/2021	*Ruth HQ Fire System and Pump House*	1,154.77
Total The Mill Yard:			2,163.08
Three G's			
Three G's	05/19/2021	*Annual Ruth Maint -Oil Containment for slide gate cylinder pow*	146.54
Total Three G's:			146.54
Thrifty Supply			
Thrifty Supply	05/19/2021	*Ruth HQ Fire System and Pump House*	1,798.93
Thrifty Supply	05/19/2021	*Annual Ruth Hydro Maintenance*	208.08
Total Thrifty Supply:			2,007.01
Trinity County General Services			
Trinity County General Services	05/25/2021	*Pickett Peak site lease*	257.50
Total Trinity County General Services:			257.50
Trinity County Solid Waste			
Trinity County Solid Waste	05/19/2021	*Ruth HQ dump fees*	21.87
Trinity County Solid Waste	05/19/2021	*Ruth Hydro dump fees*	21.87
Total Trinity County Solid Waste:			43.74
U.S. Bank Corporate Payment System			
U.S. Bank Corporate Payment System	05/07/2021	*Drop Box Subscription*	199.00
U.S. Bank Corporate Payment System	05/07/2021	*GM Training Webinar Inlet & Outlet Hydraulics for Spillways &*	99.00
U.S. Bank Corporate Payment System	05/07/2021	*Zoom Essex Subscription - COVID*	119.71
U.S. Bank Corporate Payment System	05/07/2021	*Zoom Eureka - COVID*	119.72
U.S. Bank Corporate Payment System	05/07/2021	*General Manager Training - CEE Quarterly Meetings*	10.00

Vendor Name	Date Paid	Description	Amount Paid
U.S. Bank Corporate Payment System	05/07/2021	*Deposit Slips*	62.91
U.S. Bank Corporate Payment System	05/07/2021	*projector light bulb*	85.72
U.S. Bank Corporate Payment System	05/07/2021	*ACWA Conference Registration J. Friedenbach and M. Fuller*	750.00
U.S. Bank Corporate Payment System	05/07/2021	*General Manager training - CSDA Leadership Summit*	625.00
U.S. Bank Corporate Payment System	05/07/2021	*purchase order software subscription*	79.70
U.S. Bank Corporate Payment System	05/07/2021	*Eureka Office Supplies*	137.68
U.S. Bank Corporate Payment System	05/07/2021	*Essex office supplies*	99.65
U.S. Bank Corporate Payment System	05/07/2021	*Ruth Annual Maintenance*	42.41
U.S. Bank Corporate Payment System	05/07/2021	*Ruth Annual Maintenance*	42.41
U.S. Bank Corporate Payment System	05/07/2021	*Maintenance Tools*	160.78
U.S. Bank Corporate Payment System	05/07/2021	*TRF Maintenance Tools*	63.58
U.S. Bank Corporate Payment System	05/07/2021	*Fuel for Supt trip to Salem OR to see Collector construction*	50.50
U.S. Bank Corporate Payment System	05/07/2021	*Collector Motor Oiler drip sensor project*	417.00
U.S. Bank Corporate Payment System	05/07/2021	*Essex office supplies*	42.65
U.S. Bank Corporate Payment System	05/07/2021	*Essex Maintenance Supplies*	30.79
U.S. Bank Corporate Payment System	05/07/2021	*Essex tool storage*	26.77
U.S. Bank Corporate Payment System	05/07/2021	*Essex office supplies*	53.48
U.S. Bank Corporate Payment System	05/07/2021	*HazMat Refresher Course - 3 employees*	194.70
U.S. Bank Corporate Payment System	05/07/2021	*Essex office computer supplies*	96.71
U.S. Bank Corporate Payment System	05/07/2021	*Maintenance shop printer*	377.12
U.S. Bank Corporate Payment System	05/07/2021	*FERC Part 12 Inspection - Waterproof camera*	563.65
U.S. Bank Corporate Payment System	05/07/2021	*Ruth Annual Maintenance*	91.88
U.S. Bank Corporate Payment System	05/07/2021	*Unit 4 transmission repair*	646.32
U.S. Bank Corporate Payment System	05/07/2021	*Annual Ruth Maintenance*	191.58
U.S. Bank Corporate Payment System	05/07/2021	*Annual Ruth Maintenance*	658.88
U.S. Bank Corporate Payment System	05/07/2021	*Ruth HQ Shop Lighting Upgrade and Equipment*	311.40-
Total U.S. Bank Corporate Payment System:			5,827.90
U.S. Bank Corporate Trust Services			
U.S. Bank Corporate Trust Services	05/07/2021	*SRF Quarterly Account Maint Fee (Jan- Mar 2021)*	225.00
Total U.S. Bank Corporate Trust Services:			225.00
USA Blue Book			
USA Blue Book	05/19/2021	*Humboldt Bay Retail meter reading tools*	16.12
USA Blue Book	05/19/2021	*Fieldbrook-Glendale CSD customer service tools*	45.88
Total USA Blue Book:			62.00
VALEO Networks			
VALEO Networks	05/25/2021	*Eureka office Essential Care Computer Service*	1,086.19
Total VALEO Networks:			1,086.19
Valley Pacific Petroleum Servi, Inc			
Valley Pacific Petroleum Servi, Inc	05/19/2021	*Fuel for 2MW Generator Essex Pumping per Munis Sp Facility*	3,192.62
Valley Pacific Petroleum Servi, Inc	05/19/2021	*Essex Bulk Diesel*	1,304.77
Valley Pacific Petroleum Servi, Inc	05/19/2021	*Essex Bulk Gasoline*	504.10
Valley Pacific Petroleum Servi, Inc	05/19/2021	*TRF Generator Diesel Fuel*	218.41
Valley Pacific Petroleum Servi, Inc	05/19/2021	*cardlock fuel - Pumping and Control*	500.26
Valley Pacific Petroleum Servi, Inc	05/19/2021	*cardlock fuel - Water Quality*	500.26
Valley Pacific Petroleum Servi, Inc	05/19/2021	*cardlock fuel - Maintenance*	500.25
Valley Pacific Petroleum Servi, Inc	05/19/2021	*cardlock fuel - Humboldt Bay Retail*	130.06
Valley Pacific Petroleum Servi, Inc	05/19/2021	*cardlock fuel - Fieldbrook-Glendale CSD*	370.19
Valley Pacific Petroleum Servi, Inc	05/27/2021	*Annual Ruth Maintenance Spill Response Materials*	191.79
Valley Pacific Petroleum Servi, Inc	05/27/2021	*Refill Ruth Area bulk fuel*	390.91

Vendor Name	Date Paid	Description	Amount Paid
Valley Pacific Petroleum Servi, Inc	05/27/2021	*Refill Ruth Hydro bulk fuel*	390.91
Total Valley Pacific Petroleum Servi, Inc:			8,194.53
Verizon Wireless			
Verizon Wireless	05/19/2021	*General Manager*	37.22
Verizon Wireless	05/19/2021	*Ruth Area Fire Recovery*	36.74
Verizon Wireless	05/19/2021	*Customer Service - Humboldt Bay*	14.36
Verizon Wireless	05/19/2021	*Customer Service - Fieldbrook-Glendale CSD*	40.87
Verizon Wireless	05/19/2021	*Operations 1*	.23
Verizon Wireless	05/19/2021	*Customer Service IPad-Humboldt Bay*	9.88
Verizon Wireless	05/19/2021	*Customer Service IPad - Fieldbrook-Glendale CSD*	28.13
Verizon Wireless	05/19/2021	*Ruth Area*	19.97
Verizon Wireless	05/19/2021	*Ruth Hydro*	19.98
Total Verizon Wireless:			207.38
WREGIS			
WREGIS	05/07/2021	*Annual ReMat Requirement*	100.00
Total WREGIS:			100.00
Grand Totals:			216,412.92

Humboldt Bay Municipal Water District | --Monthly Overtime Report-- | Page: 1
Pay period dates: 5/1/2021 - 5/31/2021 | Jun 02, 2021 10:39AM

Position Title	2-01 Overtime Emp Hrs	2-01 Overtime Emp Amt	2-02 Doubletime Emp Hrs	2-02 Doubletime Emp Amt
Executive Assis	7.00	$289	.00	$0
Actg/HR Spec	.50	$37	.00	$0
Total ADMIN:	7.50	$327	.00	$0
Maint Worker	1.50	$50	.00	$0
Elec & Ins Tech	7.75	$450	.00	$0
Maint Worker	5.75	$164	.00	$0
Elec & Ins Tech	1.50	$79	.00	$0
Oper & Mnt Tech	6.50	$296	.00	$0
Total ESSEX:	23.00	$1,039	.00	$0
PT Hydro Oper	2.50	$69	.00	$0
Hydro Oper Ruth	8.50	$468	.00	$0
Total RUTH:	11.00	$537	.00	$0
Grand Totals:	41.50	$1,903	.00	$0

Humboldt Bay Municipal Water District

To: Board of Directors

From: Chris Harris

Date: June 10, 2021

Re: FY21/22 Budget Summary

Review

Over the past month staff has presented the *Service & Supply Budget, Salaries & Wages Budget, Employee Benefits Budget* (May 7th), as well as the *Special Projects Budget* (May 20th). This month, staff will provide an additional PowerPoint presentation summarizing the entire DRAFT Budget and the potential impact on wholesale customer charges.

Service & Supply Budget

- No changes since presentation May 7th.

Salaries & Wages Budget

- No changes since presentation May 7th.
- Follow-up information provided regarding additional COLA rates.

Employee Benefits Budget

- Estimated increase in Medical Insurance Premiums adjusted from $44,300 to $44,000.

Special Projects Budget

- There may be some slight changes in Advanced Charges for Grant Projects based on the final June financials. This will be addressed in the final Budget meeting on July 8th.

Discussion

While the District does not receive all of its funding from its municipal customers, staff is aware that the Board is concerned about how the Districts' budget eventually impacts the individual retail customers serviced by the municipal wholesale customers of the District.

The determining factor for utility billing rates for all municipalities are the results from their "Retail Rate Studies." As the Board is aware, the District recently completed it's own Retail Rate Study, which establishes what the utility billing rates need to be in order to preserve that agency's reserves and cover their costs of operations.

Once an agency has completed the Retail Rate Study, the water billing rates are established for the next 5-years. In addition to the scheduled annual billing rate adjustments established by the Retail Rate Study, retail billing rate adjustments are made annually based on the Consumer Price Index (CPI) to combat any inflationary changes. Most agencies the District serves have also implemented a "pass-through" rate. As the cost of wholesale water changes, the pass-through rate to the customer is changed. It is important to note that the pass-through charges ONLY impact water that is used. The change does not impact other fixed or variable service charges. The combination

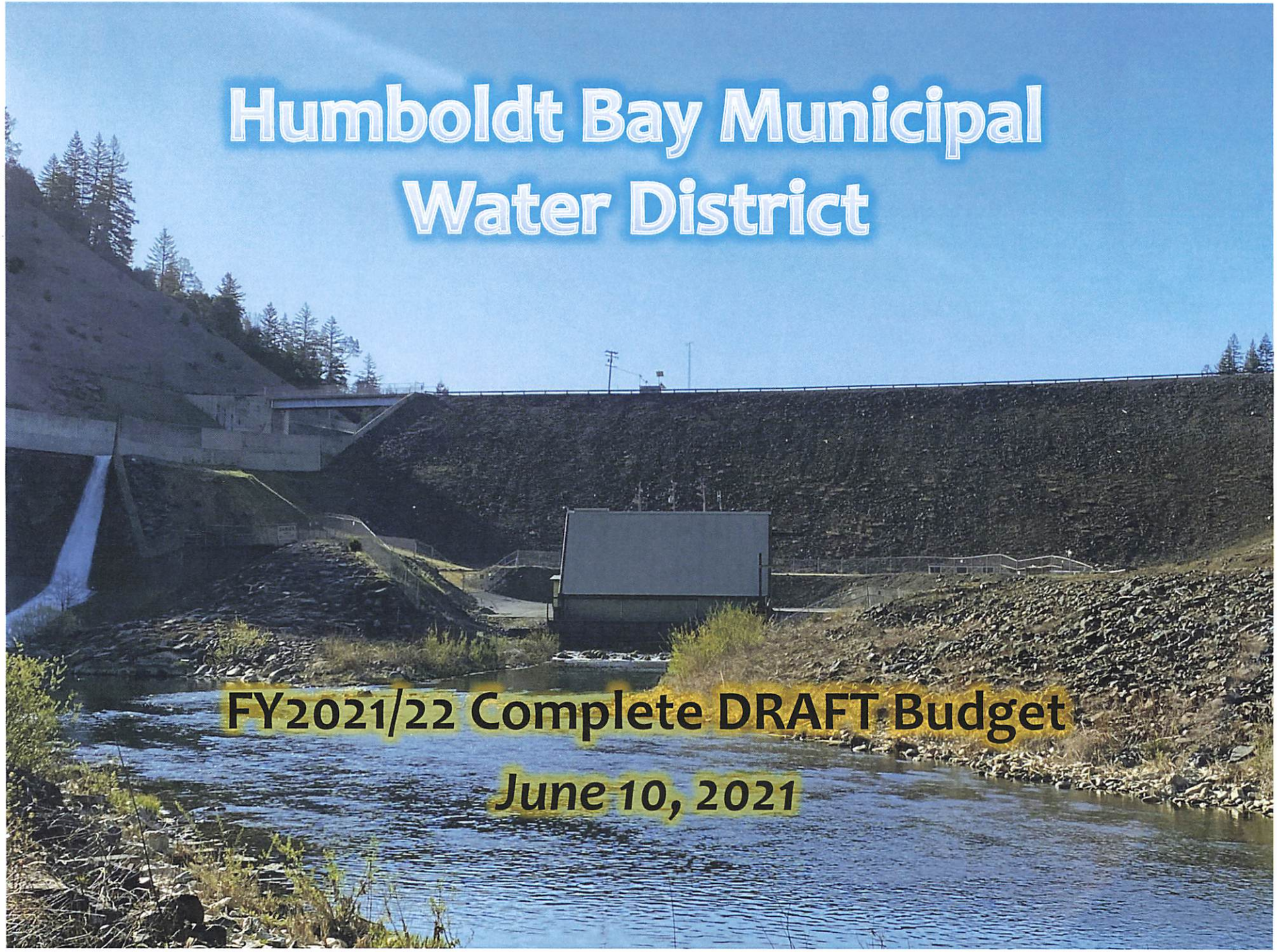
of using the Consumer Price Index to adjust for inflation and adjusting the pass-through rates allows the various municipalities to keep their rates more current and in line with their current expenses.

Comparison of Muni Customer Charges				
	Total FY20/21 Budget	**Total FY21/22 DRAFT Budget**	**$ Change**	**% Change**
Project Budget – Resulting Customer Charges	$2,294,590	$2,229,500	<$65,090>	<2.84%>
Employee Benefits	$1,714,350	$1,817,600	$103,250	6.02%
Service & Supply	$1,643,300	$1,700,700	$57,400	3.49%
Salaries & Wages	$2,510,760	$2,594,100	$83,340	3.32%
Other Revenue	<$763,600>	<$752,700>	<$10,900>	<1.43%>
Total	**$7,399,400**	**$7,589,200**	**$189,800**	**2.56%**

Comparison of Funding Sources				
	Total FY20/21 Budget		Total FY21/22 *DRAFT* Budget	
Funding Source	**$ Funds**	**% Funds**	**$ Funds**	**% Funds**
Grants	$5.6M	31.3%	$8.8M	37.9%
City of Eureka	$3.3M	18.4%	$3.4M	14.7%
Advance Charges	$2.5M	14.0%	$3.8M	16.4%
Other Revenue	$1.6M	8.9%	$1.6M	6.9%
City of Arcata	$1.4M	7.8%	$1.5M	6.0%
MCSD	$1.1M	6.2%	$1.2M	5.2%
HCSD	$1.0M	5.6%	$1.0M	4.3%
Reserves	$834k	4.7%	$883k	3.8%
City of Blue Lake	$195k	1.1%	$192k	0.8%
FBGD-CSD	$178k	1.0%	$186k	0.8%
Manila CSD	$77k	0.4%	$80k	0.3%
Totals	**$17.8M**		**$22.6M**	

Next Steps

The finalized budget will be presented for consideration and adoption at the July 8, 2021 Board meeting.


Humboldt Bay Municipal
Water District
FY2021/22 Complete DRAFT Budget
June 10, 2021

Scheduled Budget Meetings

- **May 7th** *Service & Supply and Salaries & Employee Benefits*
- **May 20th** *Project Budget*
- **June 10th Review~~ Draft of Entire Budget**
- **July 8th** *Consideration & Approval of FY2021/22 Budget*

Service & Supply Budget

QUICK OVERVIEW OF CHANGES

* Telephone Expense	<$9,000>	<18.4%>
* Regulatory Agency Fees	+$38,500	(25.4%)
* Power	+$23,000	(3.0%)
* Dues & Subscriptions	+$4,900	(17.4%)

Total Change **$57,400** **3.5%**

Service & Supply Budget

Operations & Maintenance	2020/21 Budget	2021/22 Budget	Change $
General Engineering	$75,000	$75,000	$0
Maintenance & Repairs (General & TRF)	$68,000	$64,000	<$4,000>
Materials & Supplies (General & TRF)	$73,000	$77,000	**$4,000**
Safety Equip. & Training (General & TRF)	$24,000	$24,000	$0
Tools & Equipment	$5,000	$5,000	$0
Laboratory Services	$13,000	$13,000	$0
Auto Operations & Maintenance	$39,700	$39,700	$0
Radio/Comm. System Maint.	$8,500	$8,500	$0
USGS Stations	$8,500	$8,500	$0
Ruth Lake License	$1,500	$1,500	$0
Total Operations & Maint.	**$316,200**	**$316,200**	**$0**

Service & Supply Budget

General /Admin & Power	2020/21 Budget	2021/22 Budget	Change $
Accounting Services	$18,000	$18,000	$0
Legal Services	$35,000	$35,000	$0
Professional Services	$20,000	$20,000	$0
Insurance	$111,000	$111,000	$0
Telephone	$49,000	$40,000	<$9,000>
Internet	$10,000	$10,000	$0
Office Maintenance	$16,000	$16,000	$0
Office Expense	$40,500	$40,500	$0
IT & Software Maintenance	$31,000	$31,000	$0
Travel/Conference	$25,000	$25,000	$0
Dues/Subscriptions	$28,100	$33,000	$4,900
Subtotal General/Admin	**$383,600**	**$379,500**	<$4,100>

Service & Supply Budget

General/Admin & Power (con't)	2020/21 Budget	2021/22 Budget	Change $
Technical Training/Development	$14,500	$14,500	$0
GM Training	$3,000	$3,000	$0
Safety Apparel	$3,000	$3,000	$0
County Property Tax	$1,000	$1,000	$0
Regulatory Agency Fees	$141,000	$179,500	$38,500
Ruth Lake Programs	$5,000	$5,000	$0
Miscellaneous Expenses	$11,500	$11,500	$0
Power	$764,500	$787,500	$23,000
Subtotal General/Admin & Power	**$943,500**	**$1,005,000**	**$61,500**
Total General/Admin & Power	**$1,327,100**	**$1,384,500**	**$57,400**

Service & Supply Budget

	2020/21 Budget	2021/22 Budget	Change $	Change %
Total Operations & Maintenance (Slide 4)	$316,200	$316,200	$0	0.0%
Total General/Admin & Power (Slides 5-6)	$1,327,100	$1,384,500	$57,400	4.3%
GRAND TOTAL Service & Supply Budget	**$1,643,300**	**$1,700,700**	**$57,400**	**3.5%**

Board Discussion?

7


Service Budget
COMPLETED
Salaries & Wages Budget
Employee Benefits Budget
Summary DRAFT Budget

Salary & Wages Budget

OVERVIEW COMPARED TO PRIOR BUDGET

NEW REQUEST – 3-month training position for operator replacement due to retirement(s) **+$15,500**

NEW REQUEST – Cost of Living Adjustment (COLA) **+$46,300**

(2.0% Calculated)

Required Increase in Minimum Wage **+$11,340**

(Temporary, Summer Employees only)

Misc. Step Increases, Other Longevity Increases +**$10,200**

Total Increase **+$83,340**

Salary & Wages Budget

NEW REQUEST – THREE MONTH TRAINING POSITION

District currently has 8 employees eligible for retirement

Combined, these employees represent 174 years of service

- **BUDGET REQUEST** – Funding for 3-month training/cross-over for potential retirement(s).
  - Currently, no confirmed retirements w/in next 12-months *(can change at any moment)*
  - District needs to have funds to recruit/hire/train new operations staff
  - Will facilitate transfer of historical knowledge to new employee(s)
- **Estimated Wage Expense $ 15,500**

NEW REQUEST – COLA

Salary & Wages Budget

CPI Indices used to help establish
basis for COLA since 1975

COLA's help employees
address inflation over time

COLA's help maintain compensation
parity with other local agencies

COLA's help with employee retention
and employee morale

NEW REQUEST – COLA

Consumer Price Index Informational Overview

	2020 (February)	2020 (November)	2020 (December)	2021 (February)	2021 (March)	2021 (April)
U.S. City Average	2.5%	1.2%	1.4%	1.7%	2.6%	4.2%
West Region (Urban areas in one of four US regions)	2.9%	1.4%	1.5%	1.6%	2.4%	3.9%
West Region Size Class B/C (Cities with population under 2.5 million)	2.8%	1.2%	1.5%	1.8%	2.6%	3.9%
San Francisco-Oakland-Hayward	3.3%	n/a	2.0%	1.6%	n/a	3.8%

NEW REQUEST – COLA

HISTORICAL COLA RATES

Agency	FY17	FY18	FY19	FY20	FY21	FY22 Request
HCSD	0%	1.9%	2.8%	3.3%	2.7%	1.7%
MCSD	1.15%	1.8%	2.75%	3.45%	2.75%	1.6%
City of Eureka	0%	1%	1%	1%	1%	N/A
City of Arcata	1.5%	1.5%	2.5%	3% plus 2.5% Salary Step	3%	N/A
HBMWD	2.0%	2.5%	3.0%	2.7%	3%	2%
West Region Class B/C CPI (< 2.5M)	1.8%	2.5%	2.8%	2.5%	2.8%	1.8% (February 2021)

NEW REQUEST – COLA

COLA as a Percent of Muni Charges (Staff Recommendation 2%)

	FY22 Estimated Customer Charges	Est. Allocation of COLA (2% Used)	% of COLA to Customer Charges
Eureka	$3,393,900	$20,700	.61%
Arcata	$1,469,400	$9,000	.61%
Blue Lake	$192,000	$1,200	.63%
Humboldt CSD	$1,069,000	$6,500	.61%
McKinleyville CSD	$1,198,200	$7,300	.61%
Fieldbrook CSD	$186,400	$1,100	.60%
Manila CSD	$80,300	$500	.62%
TOTALS	**$7,589,200**	**$46,300**	.61%

NEW REQUEST – COLA

COLA as a Percent of Total Budget (Staff Recommendation 2%)

	Total HBMWD Budget	Resulting Muni Charges
Project Budget	$15,689,600	$2,229,500
Salaries and Wages Budget (no COLA)	$2,547,800	$2,547,800
2.0% COLA	$46,300	$46,300
Employee Benefits Budget	$1,817,600	$1,817,600
Service & Supply Budget	$1,700,700	$1,700,700
Other Revenue	<$752,700>	<$752,700>
Totals	**$21,049,300**	**$7,589,200**
COLA % of TTL Budget	0.22%	.61%

NEW REQUEST – COLA

Calculated COLA %	FY21/22 Impact
0.25%	$6,400
0.50%	$11,500
0.75%	$17,400
1.0%	$23,100
1.4%	$32,200
1.6%	$37,000
1.7%	$39,300
1.8%	$41,700
2.0%	**$46,300**
2.4%	$55,200
2.6%	$59,800
3.9%	$89,700
4.2%	$96,600

Salary & Wages Budget

NEW REQUEST – 3-month training position	**+$15,500**
NEW REQUEST – Cost of Living Adjustment (COLA) (2.0% Calculated)	**+$46,300**
Required Increase in Minimum Wage	**+$11,340**
Misc. Step Increases, Other Longevity Increases	+**$10,200**

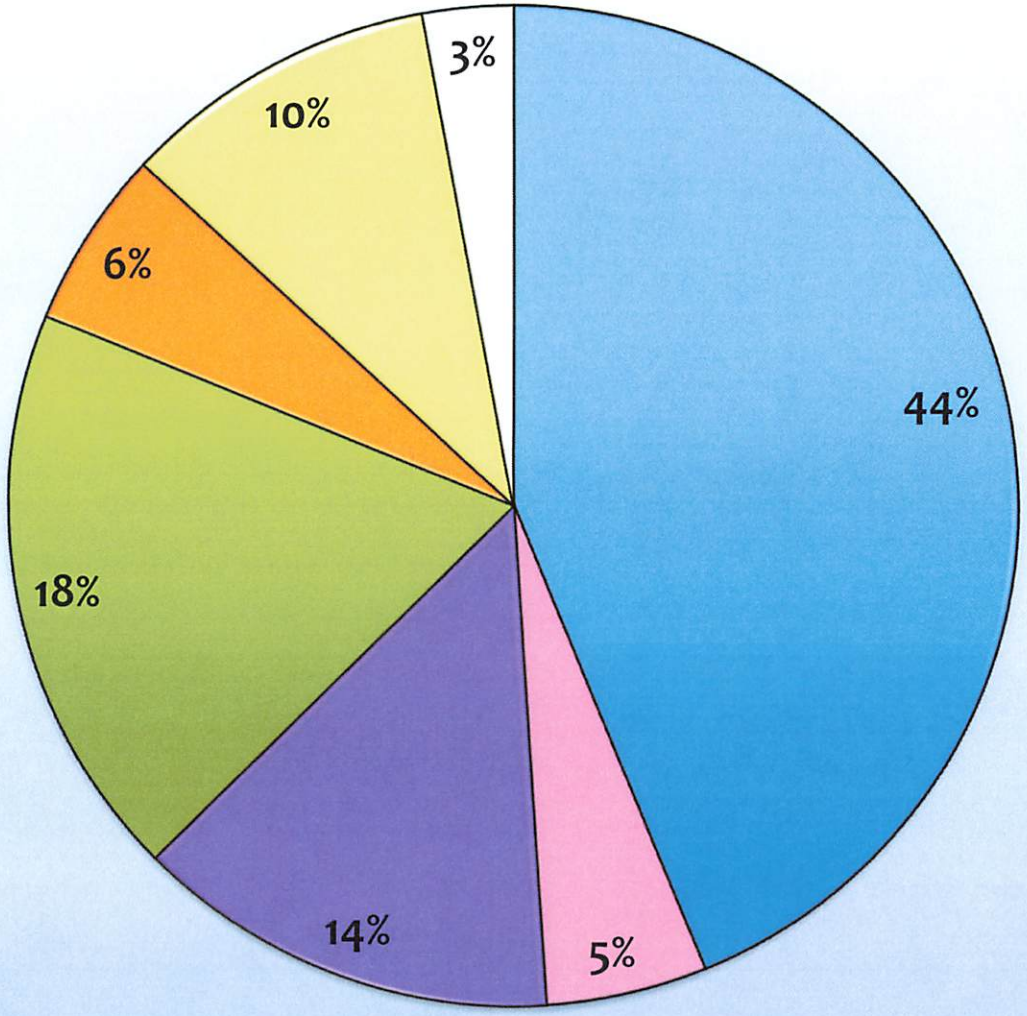
Total Increase **+$83,340**

DISCUSSION?


Service COMPLETED Budget
Salaries COMPLETED Budget
Employee Benefits Budget
Summary DRAFT Budget

Employee Benefits Budget

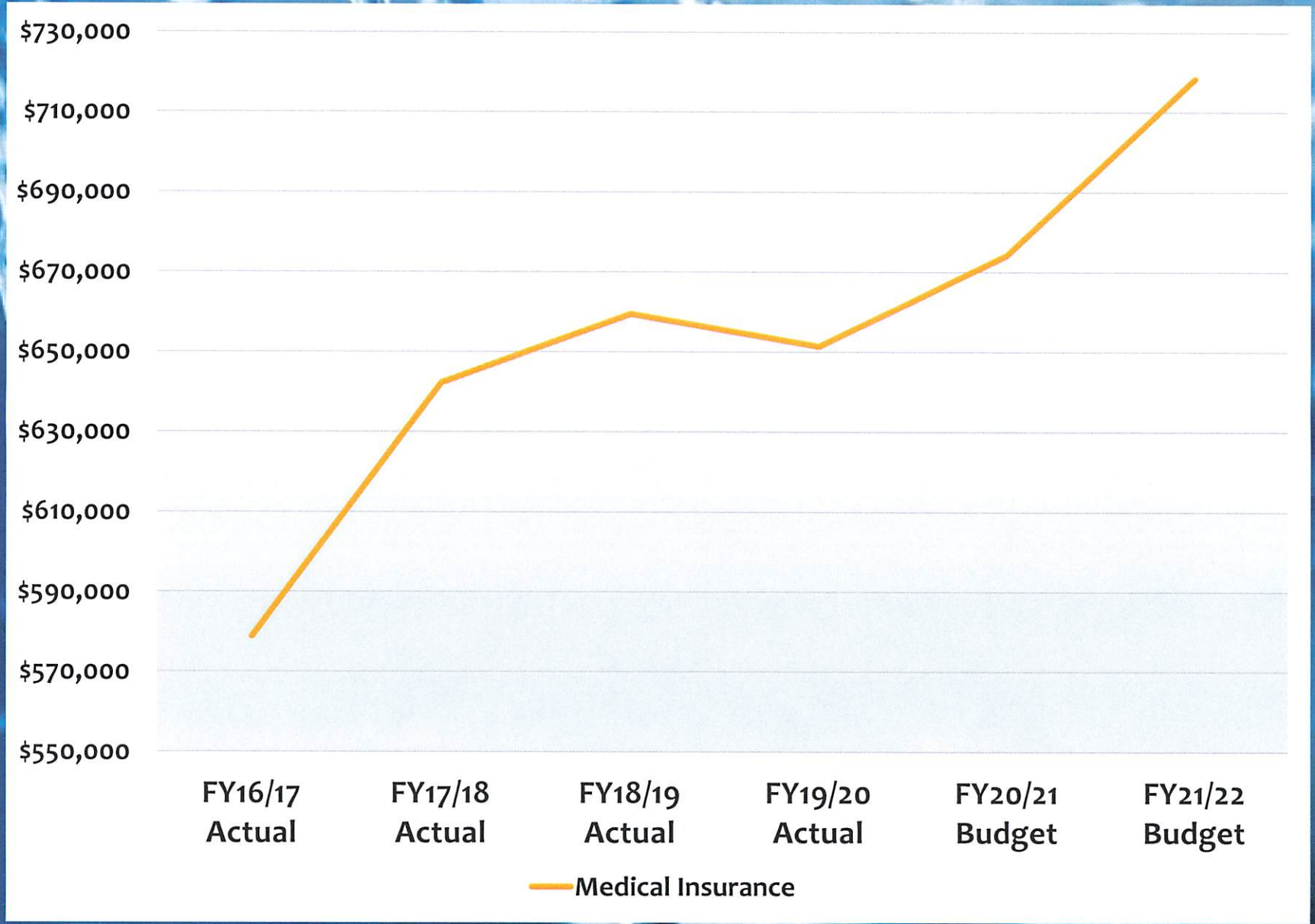
FY22 Benefit Expense Est. $1,817,600



- Active Health, Vision, & Dental Ins.
- Retiree Health Ins.
- CalPERS UAL
- CalPERS Current Exp.
- Worker's Comp.
- Payroll Taxes
- Deferred Comp., EAP, L & LTD Ins.

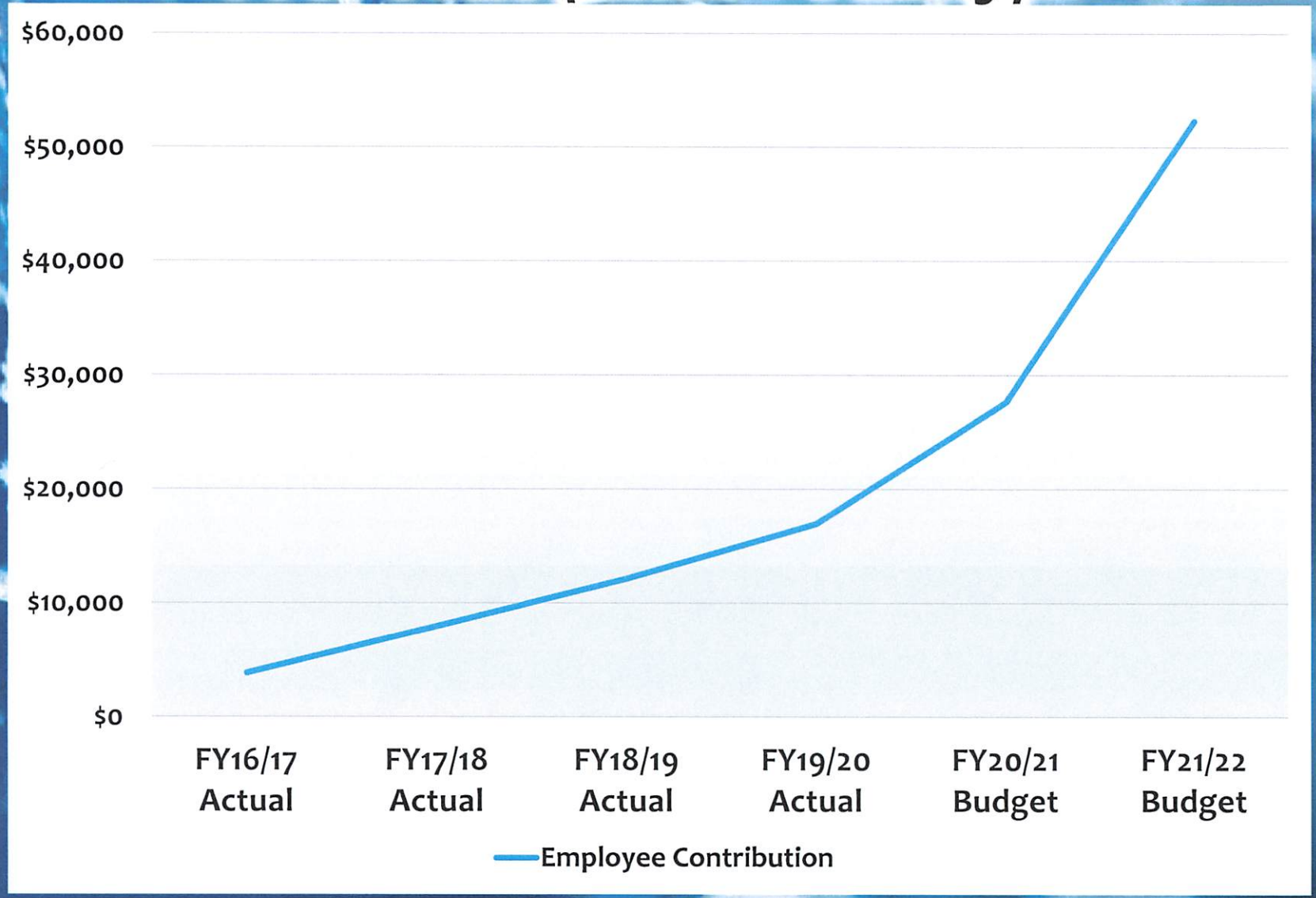
Employee Benefits Budget

Medical Insurance FY17-FY22



Employee Health Insurance Contribution FY17-FY21 (HMO – Family)

Employee Benefits Budget



Medical Premium Comparison FY17-FY22

PERIOD	6-MONTH PREMIUM	EE CONT.	PREMIUM EXPENSE	CY EXP.	FY EXP.	FY DIFF.
July-Dec 2016	$267,300	$1,800	$265,500			
Jan-June 2017	$315,300	$2,000	$313,300		$578,800	
July-Dec 2017	$315,300	$2,000	$313,300	$626,600		
Jan-June 2018	$334,800	$5,900	$328,900		$642,200	$63,400
July-Dec 2018	$334,800	$5,900	$328,900	$657,800		
Jan-June 2019	$336,600	$6,200	$330,400		$659,300	$17,100
July-Dec 2019	$336,600	$6,200	$330,400	$660,800		
Jan-June 2020	$331,500	$10,700	$320,800		$651,200	$8,100
July-Dec 2020	$331,500	$10,700	$320,800	$641,600		
Jan-June 2021	$370,400	$16,900	$353,500		$674,300	$23,100
July-Dec 2021	$370,400	$16,900	$353,500	$707,000		
Jan-June 2022 (est.)	$400,200	$35,400	$364,800		$718,300	$44,000

CY Exp.=Calendar Year Expense FY Exp.=Fiscal Year Expense

Employee Benefits Budget

HBMWD Cost of Benefits Comparison

	Total $	$ Change	% Change	Comments
FY15/16 Actual	$1,290,456	$59,380	4.8%	+ 1 FT Position, Increased 1 PT to FT
FY16/17 Actual	$1,393,236	$102,780	8.0%	+Electrician Trainee (6 months)
FY17/18 Actual	$1,479,042	$134,889	9.7%	2.7% Medical, 6.7% CalPERS
FY18/19 Actual	$1,537,517	$58,475	4.0%	+1 FT Position
FY19/20 Actual	$1,634,995	$97,478	6.3%	.75% Est. W. Comp, 3% Est. Medical
FY20/21 Budget	$1,714,350	$79,355	4.9%	1% Est. W. Comp, 1% Est. Medical, 1.5% Est. CalPERS, UAL funding
FY21/22 Budget	$1,817,600	$103,250	6.0%	6% Est. Medical (HMO), 3-mo training position, UAL funding

Most influential on District Benefits Expense:
Medical Insurance, CalPERS Pension Liabilities, and Worker's Compensation Rates

Employee Benefits Budget

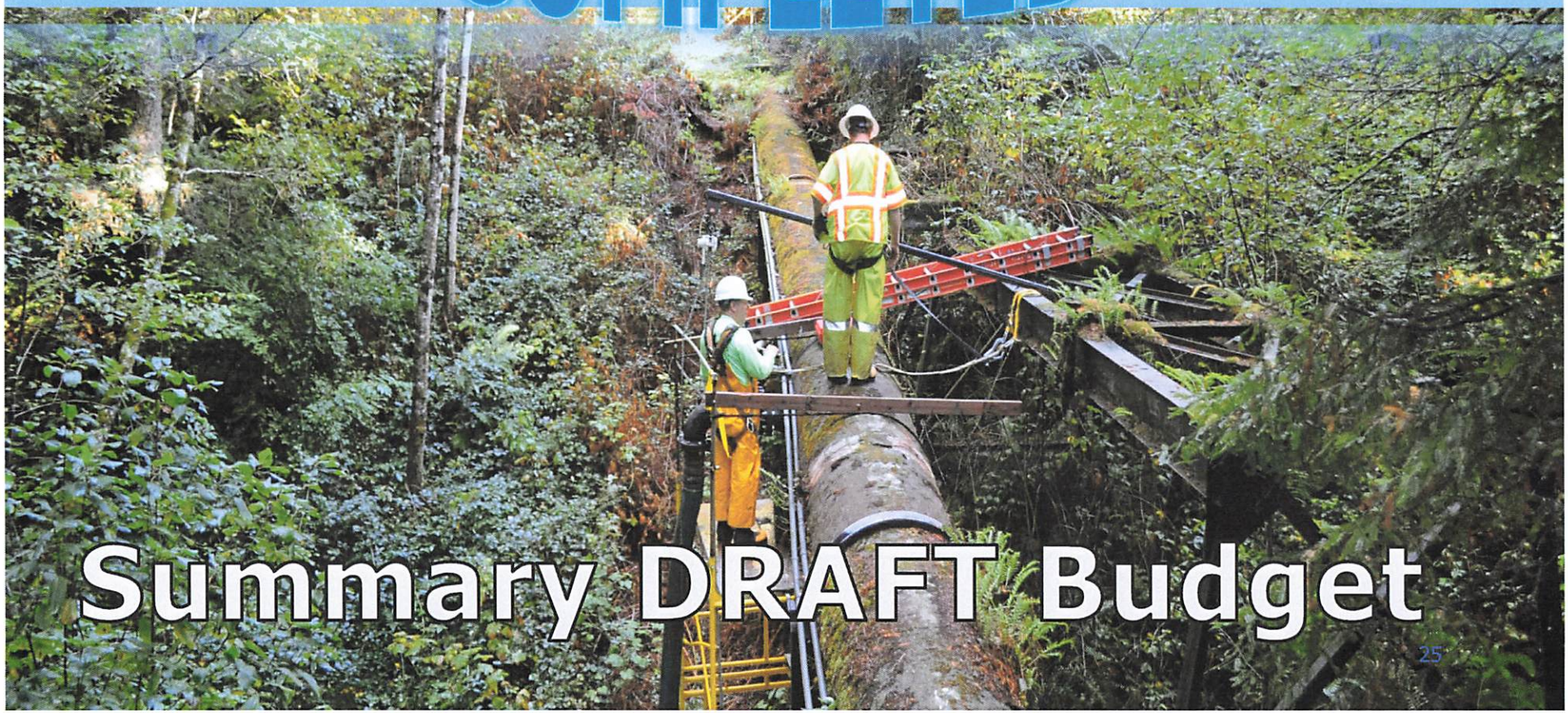
SUMMARY OF CHANGES

NEW **Benefit Exp. for 3-Month Training Position**		**+$11,400**
CalPERS Pension Liabilities		**+$37,550**
Unfunded Liability	+$26,500	
Monthly Pension Liabilities	+$11,050	
Payroll Tax Expenses		**+$7,700**
Medical Insurance Premiums		**+$44,000**
JPIA estimated between 0%-6% increase, as compared to actual		
Life, LTD, and AD & D Insurance		**+$2,600**
Total Estimated Increases		**+$103,250**

Service COMPLETED Budget

Salaries COMPLETED Budget

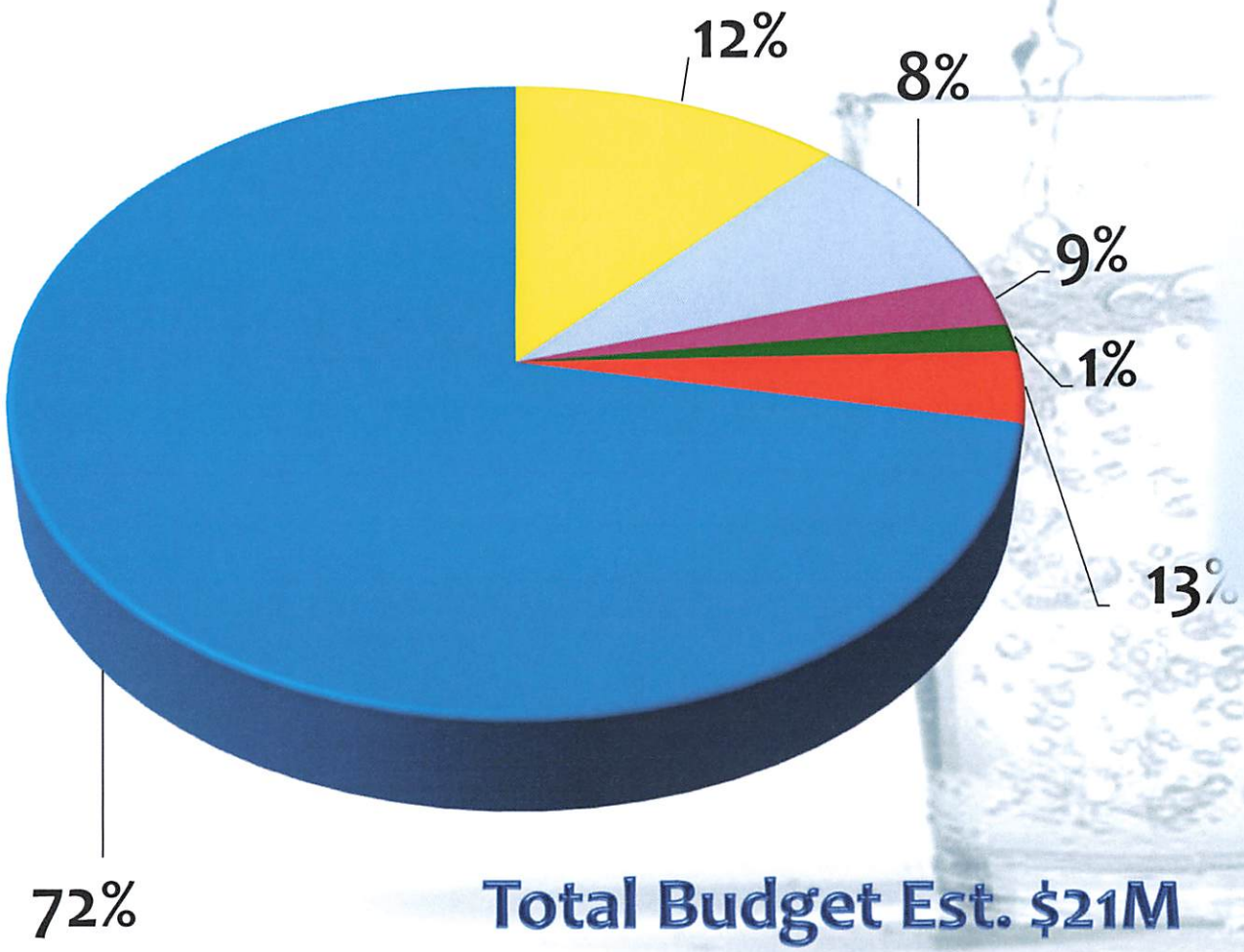
Employee Benefits COMPLETED Budget



Summary DRAFT Budget

Composition of Total FY21/22 Budget

Service & Supply, Salaries & Employee Benefits, and Project Budget



Total Budget Est. $21M

Total Customer Charges

Total FY2021/22 *DRAFT* Budget	
Project Budget (Customer Charges)	$2,229,500
Employee Benefits Budget	$1,817,600
Service & Supply Budget	$1,700,700
Salaries & Wages Budget (w/ 2.0% COLA)	$2,594,100
Other Revenue	<$752,700>
TOTAL CUSTOMER CHARGES	**$7,589,200**

Summary and Comparison

YEAR	S&S	SEB	TOTAL	$ CHANGE	% CHANGE
FY2014/15	$1,420,400	$3,160,611	$4,581,011	$165,556	3.75%
FY2015/16	$1,439,400	$3,453,292	$4,892,692	$311,681	6.80%
FY2016/17	$1,432,400	$3,596,134	$5,028,034	$135,342	2.77%
FY2017/18	$1,482,365	$3,742,276	$5,224,641	$196,607	3.91%
FY2018/19	$1,508,214	$3,938,118	$5,446,332	$221,691	4.24%
FY2019/20	$1,551,600	$4,084,484	$5,636,084	$189,752	3.48%
FY2020/21	$1,643,300	$4,225,110	$5,868,410	$232,326	4.12%
FY21/22	**$1,700,700**	**$4,411,700**	**$6,112,400**	**$243,990**	**4.16%**

Summary and Comparison

5-yr Comparison of Charges to Municipal Customers

YEAR	TOTAL MUNI CHARGES	$ CHANGE	% CHANGE
FY16/17	$6,744,300	$604,211	9.84%
FY17/18	$5,534,500	<$1,209,835>	<17.94%>
FY18/19	$7,006,200	$1,471,700	26.59%
FY19/20	$7,188,057	$181,857	2.60%
FY20/21	$7,399,400	$221,343	2.94%
FY21/22 (Projected)	$7,589,200	$189,800	2.56%

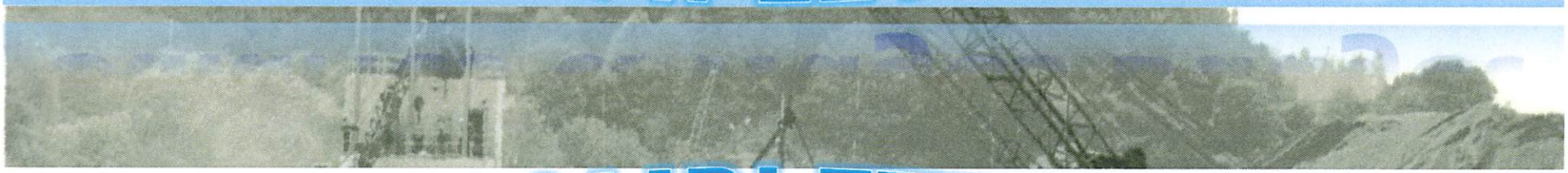
HBMWD Funding Comparison

Comparison of FY20/21 Budget to FY21/22 DRAFT Budget

Funding Source	FY2020/21 $ Funds	FY2020/21 % Funds	FY2021/22 $ Funds	FY2021/22 % Funds
Grants	$5.6M	31.3%	**$8.8M**	**37.9%**
City of Eureka	$3.3M	18.4%	**$3.4M**	**14.7%**
Advance Charges	$2.5M	14.0%	**$3.8M**	**16.4%**
Other Revenue	$1.6M	8.9%	**$1.6M**	**6.9%**
City of Arcata	$1.4M	7.8%	**$1.4M**	**6.0%**
MCSD	$1.1M	6.2%	**$1.2M**	**5.2%**
HCSD	$1.0M	5.6%	**$1.0M**	**4.3%**
Reserves	$834k	4.7%	**$883k**	**3.8%**
City of Blue Lake	$195k	1.1%	**$192k**	**0.8%**
FBGD-CSD	$178k	1.0%	**$186k**	**0.8%**
Manila CSD	$77k	0.4%	**$80k**	**0.3%**
TOTAL	$17.8M		**$26.6M**	

Service COMPLETED Budget

Salaries COMPLETED Budget



Employee Benefits COMPLETED Budget

Summary COMPLETED Budget

2020 Eureka Consumer Price Index Update

The Eureka Consumer Price Index (CPI) is a tool created by the Humboldt State Economics Department to show changes in prices for major consumer goods in Humboldt County.

This year Eureka saw an overall inflation rate of 1.4%.

Notable sectors which saw heavy price increases were the food and beverage category at 4.6% and transportation at 11.6%. Food and beverages saw a general increase in prices across its subcategories, such as grains and cereal products to beef and veal. Transportation saw such a large increase in its overall inflation rate due to the price spike of motor vehicle insurance. Geico saw an increase from $385.58 in 2019 to $552.38 in 2020.Other insurance companies showed similar results, with AAA's price almost doubling, from $551.4 in 2019 to $919 in 2020. Surprisingly, this offset the decrease in both gas and diesel prices, which both lost at least 50 cents per gallon.

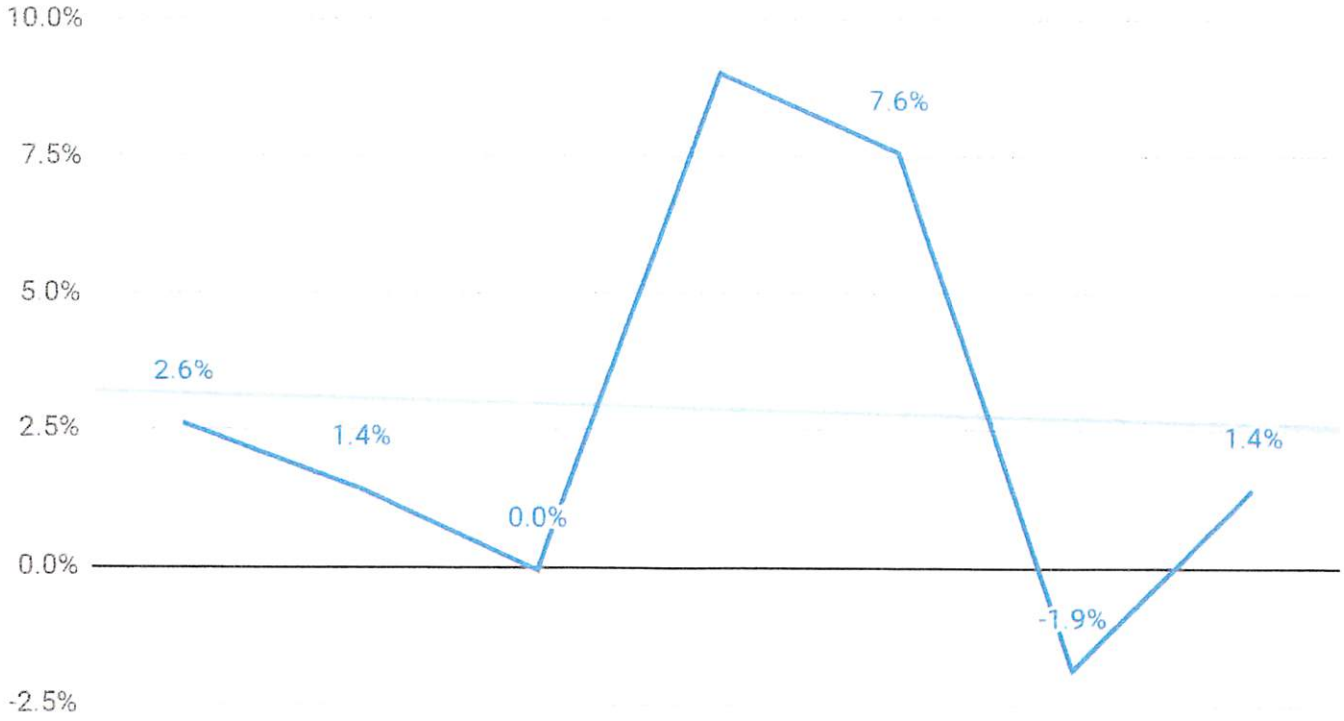
Education and Communication experienced a small increase of 2.4%, primarily due to increased tuition fees from Humboldt State University. Tuition increased by $189 between 2019 and 2020. Shipping rates through Fedex and USPS stayed around the same price, with some small increases or decreases depending on the shipping container.

A large decrease of 12% occurred in the Other Goods and Services .This is primarily because of a decrease in the price of haircuts from Mastercuts, from a price of $25 in 2019 to $20.50 in 2020. Tobacco products and personal care products generally showed stable prices between the years.

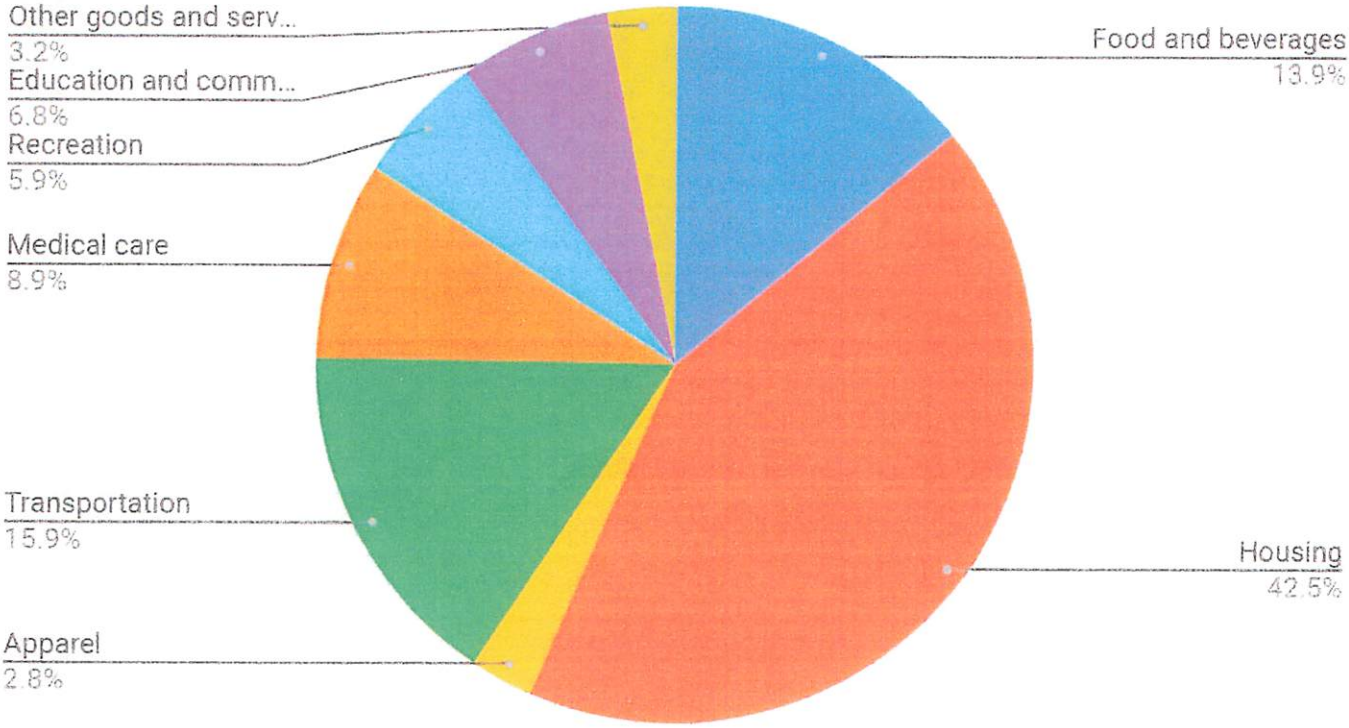
The largest category in the Index is Housing, which makes up 42% of the consumer basket. Yet, this category only saw a 0.5% increase in prices. This is primarily due to stable housing prices, with a small increase in the price of electricity and gas through PG&E. This marginal increase in the largest category weight helps show why the inflation rate is only at 1.4%, even though there are large increases in the food and beverage and transportation sectors. To better understand the impact on purchasing power, we also found wage data through the Bureau of Labor Statistics website and craiglists ads. While the average inflation rate was 1.4%, the average annual salary increased by 2.65%, meaning that average real wages increased by 1.25%. We noticed that almost all of the jobs in our data increased in wages except for the job of assistant professor, which saw an overall decrease.

Overall, the prices in Eureka were stable with relatively small changes in most market baskets except for beverage and transportation, which are extremely volatile markets especially with the current circumstances. See graphs below.

Overall Inflation Rate



Category Weights



Humboldt Bay Municipal Water District

To: Board of Directors

From: Chris Harris

Date: June 10, 2021

Re: Resolution for Annual Limit for Appropriations (Resolution 2021-12)

Background

The California Constitution Article XIII (b) requires the adoption of an annual resolution limiting the amount of appropriations from taxes to a certain base level plus annual increases based on per capital income and population increases. The State Department of Finance has provided the District with these annual Price and Population figures for FY2021/22.

Recommendation and Action

Staff is recommending Board adoption of the attached Resolution 2021-12 to establish the required appropriations limit for the 2021/22 fiscal year.

Attachment

Resolution 2021-12
Dept. of Finance Letter & Attachments

Resolution 2021-12
Limit for Appropriations from Taxes
Resolution of the Humboldt Bay Municipal Water District
Board of Directors

WHEREAS, Article XIII (b) of the State Constitution limits the amount of appropriations from taxes to a certain base level plus annual increases based on per capita income and population decreases and;

WHEREAS, the Humboldt Bay Municipal Water District has received annual updates from the State as to the allowed increase levels and;

WHEREAS, Section 7910 of the California Government Code requires formal adoption, by resolution, of the annual appropriations limit.

NOW, THEREFORE, BE IT RESOLVED:
That the appropriations from taxes limit for fiscal year 2021/2022 is hereby set at $1,376,643.00; and

That this resolution shall become effective 45 days from the date of its adoption.

Passed, approved and adopted this 10th day of June 2021 by the following votes:

Ayes:
Nays:
Absent:

Attest:

Sheri Woo, President

J. Bruce Rupp, Secretary/Treasurer

Limit for Appropriations from taxes (Prop 4 Calculation)

Article XIII (b) of the State Constitution limits the amount of appropriations from taxes.
California State Department of Finance, Demographic Research Unit (DRU) provides Price and Population information
Information will be available on website after May 1st http://www.dof.ca.gov/Research/Research.asp

Calculation of 21/22 Limit

$ 1,471,855.21	x	1.04218	=	$1,533,938.96

Instructions: Multiply prior year limit by current year factor

Humboldt County

-1.43	+	100	divided by	100	=	0.98570

1.0573	x	0.98570	=	1.04218
$ 1,320,925.73	x	1.04218	=	$1,376,643.18

Instructions: Convert Humboldt County Percent change to ratio (Humboldt County Percent change + 100 divided by 100)
Multiply State percentage change by Humboldt County Percent change. Example 1.0442 x 1.0044 = 1.0488
Multiply prior year Humboldt County limit by resulting factor (1.0488).

DEPARTMENT OF FINANCE
OFFICE OF THE DIRECTOR

Gavin Newsom ▪ Governor
State Capitol ▪ Room 1145 ▪ Sacramento CA ▪ 95814-4998 ▪ www.dof.ca.gov

May 2021

Dear Fiscal Officer:

Subject: Price Factor and Population Information

Appropriations Limit
California Revenue and Taxation Code section 2227 requires the Department of Finance (Finance) to transmit an estimate of the percentage change in population to local governments. Each local jurisdiction must use their percentage change in population factor for January 1, 2021, in conjunction with a change in the cost of living, or price factor, to calculate their appropriations limit for fiscal year 2021-22. Attachment A provides the change in California's per capita personal income and an example for utilizing the price factor and population percentage change factor to calculate the 2021-22 appropriations limit. Attachment B provides the city and unincorporated county population percentage change. Attachment C provides the population percentage change for counties and their summed incorporated areas. The population percentage change data excludes federal and state institutionalized populations and military populations.

Population Percent Change for Special Districts
Some special districts must establish an annual appropriations limit. California Revenue and Taxation Code section 2228 provides additional information regarding the appropriations limit. Article XIII B, section 9(C) of the California Constitution exempts certain special districts from the appropriations limit calculation mandate. The code section and the California Constitution can be accessed at the following website: http://leginfo.legislature.ca.gov/faces/codes.xhtml.

Special districts required by law to calculate their appropriations limit must present the calculation as part of their annual audit. Any questions special districts have on this requirement should be directed to their county, district legal counsel, or the law itself. No state agency reviews the local appropriations limits.

Population Certification
The population certification program applies only to cities and counties. California Revenue and Taxation Code section 11005.6 mandates Finance to automatically certify any population estimate that exceeds the current certified population with the State Controller's Office. **Finance will certify the higher estimate to the State Controller by June 1, 2021.**

Please Note: The prior year's city population estimates may be revised. The per capita personal income change is based on historical data. Given the stay-at-home orders due to COVID-19, growth in the coming years may be substantially lower than recent trends.

If you have any questions regarding this data, please contact the Demographic Research Unit at (916) 323-4086.

KEELY MARTIN BOSLER
Director
By:

/s/ Erika Li

Erika Li
Chief Deputy Director

Attachment

May 2021

Attachment A

A. **Price Factor**: Article XIII B specifies that local jurisdictions select their cost of living factor to compute their appropriation limit by a vote of their governing body. The cost of living factor provided here is per capita personal income. If the percentage change in per capita personal income is selected, the percentage change to be used in setting the fiscal year 2021-22 appropriation limit is:

Per Capita Personal Income

Fiscal Year (FY)	Percentage change over prior year
2021-22	5.73

B. Following is an example using sample population change and the change in California per capita personal income as growth factors in computing a 2021-22 appropriation limit.

2021-22:

Per Capita Cost of Living Change = 5.73 percent
Population Change = -0.46 percent

Per Capita Cost of Living converted to a ratio: $\frac{5.73 + 100}{100} = 1.0573$

Population converted to a ratio: $\frac{-0.46 + 100}{100} = 0.9954$

Calculation of factor for FY 2021-22: $1.0573 \times 0.9954 = 1.0524$

Fiscal Year 2021-22

Attachment B
Annual Percent Change in Population Minus Exclusions*
January 1, 2020 to January 1, 2021 and Total Population, January 1, 2021

County City	Percent Change 2020-2021	--- Population Minus Exclusions --- 1-1-20	 1-1-21	Total Population 1-1-2021
Humboldt				
Arcata	-5.49	17,891	16,909	16,909
Blue Lake	-0.71	1,271	1,262	1,262
Eureka	-1.76	26,582	26,113	26,113
Ferndale	-0.58	1,376	1,368	1,368
Fortuna	-0.67	12,006	11,926	11,926
Rio Dell	0.89	3,270	3,299	3,299
Trinidad	-0.87	345	342	342
Unincorporated	-0.54	69,918	69,543	69,632
County Total	-1.43	132,659	130,762	130,851

*Exclusions include residents on federal military installations and group quarters residents in state mental institutions, state and federal correctional institutions and veteran homes.

Operations

Memo to: HBMWD Board of Directors
From: Dale Davidsen, Superintendent
Date: June 2, 2021
Subject: Essex/Ruth May 2021 Operational Report

Upper Mad River, Ruth Lake, and Hydro Plant

1. The flow at Mad River above Ruth Reservoir (Zenia Bridge) averaged 18 cfs. The low flow was 8 cfs on May 31st and the high flow was 38 cfs on May 1st.

2. The conditions at Ruth Lake for May were as follows:

   The lake level on May 31st was 2652.90 feet which is:

   - 1.37 feet lower than April 30th, 2021
   - 0.60 feet lower than May 31st, 2020
   - 0.34 feet higher than the ten-year average
   - 1.10 feet below the spillway

3. There was no recorded rainfall for May at Ruth Headquarters.

4. Ruth Hydro produced 199,200 KWh as of May 31st. There was 1 shutdown for annual maintenance, with lost time of 74.75 hours and lost production of 16,600 KWh.

5. The lake discharge averaged 51 cfs with a high of 106 cfs on May 7th.

Lower Mad River, Winzler Control, and TRF

6. The river at Winzler Control Center for May had an average flow of 145 cfs. The river flow reached a high flow of 221 cfs on May 1st.

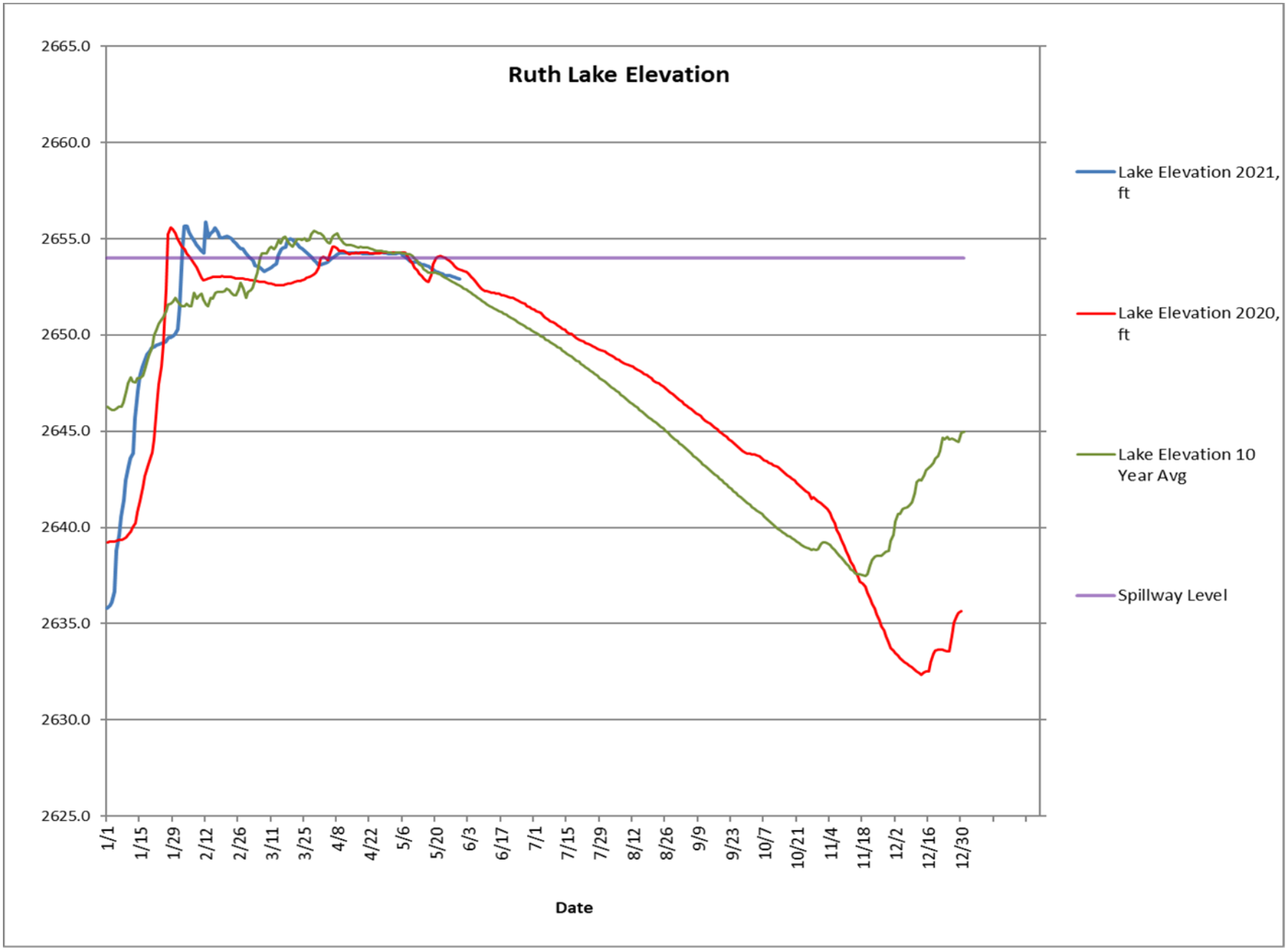
7. The domestic water conditions were as follows:

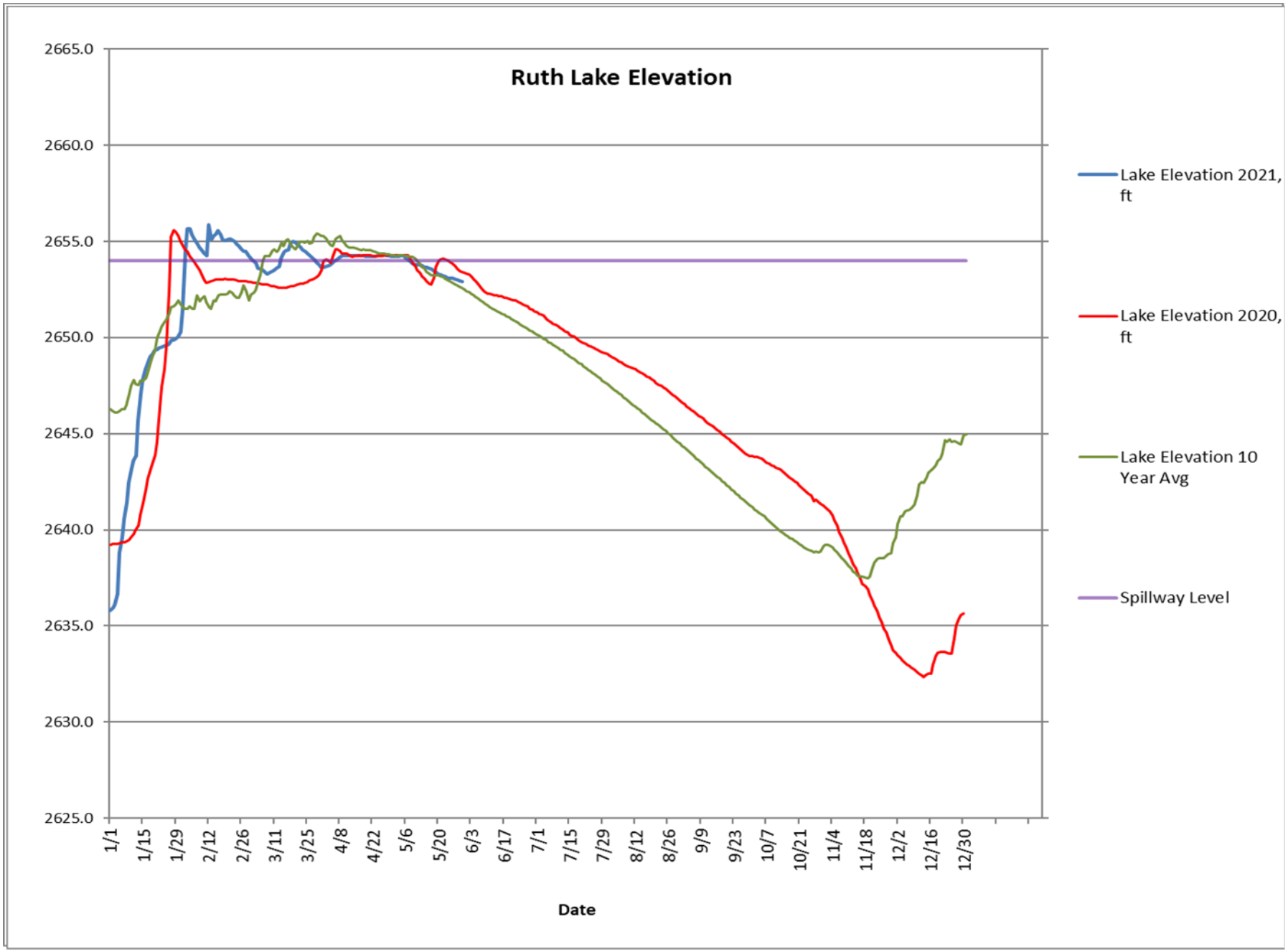
   - The domestic water turbidity average was 0.07 NTU, which meets Public Health Secondary Standards.
   - As of May 31st, we pumped 258.654 MG at an average of 8.483 MGD.
   - The maximum metered daily municipal use was 10.018 MGD on May 21st.

8. The TRF conditions for May were as follows:

   - There were 35 TRF filter backwashes as of May 31st.

9. May 3rd-7th – Annual Ruth Maintenance week.
10. May 8th – 12th – Drained, inspected, disinfected, filled and put back online the 1 Mg D/W reservoir.
11. May 11th
    - Found multiple pieces of equipment and building damaged from vandalism at Essex. Reported to Sheriff's Dept.
    - Checked on progress of cleanup at homeless camp.
12. May 14th – 21st - Drained, inspected, made a couple dozen minor paint repairs, disinfected, filled and put back online the 2 MG CT reservoir.
13. May 17th – 19th – Mario, Ryan and I toured four water treatment plants using the Microclor system of on-site generation of Hypochlorite.
14. May 20th – Seven Essex staff attended technical training webinar for CEU's
    - Sizing, maintaining and troubleshooting electrical motors.
    - Planning system repairs, upgrades and financial assistance for small systems.
15. May 24th – 28th - Mario and Lui attended a 40 hr. Cyber security training webinar.
16. May 25th – John and I attended the annual DSOD inspection of the R.W. Matthews dam.
17. May 27th – Maintenance did annual inspection of the spillway. John and I also went to observe inspection process and look at possible repair areas.
18. Current and Ongoing Projects
    - COVID 19 – Dealing with modified staffing arrangements due to COVID cases as best we can. All staff is doing well.
    - 12kV project. – Project construction back in progress. IPA/switchgear submittal is now complete. Scheduled for construction.
    - Reservoir Seismic Retrofit project. – Meetings, plan reviews and emails as needed.
    - Working on FY 21/22 Budget.
    - Routine annual equipment maintenance and services.


Ruth Lake Elevation
2665.0
2660.0
2655.0
2650.0
2645.0
2640.0
2635.0
2630.0
2625.0
1/1
1/15
1/29
2/12
2/26
3/11
3/25
4/8
4/22
5/6
5/20
6/3
6/17
7/1
7/15
7/29
8/12
8/26
9/9
9/23
10/7
10/21
11/4
11/18
12/2
12/16
12/30
Date
Lake Elevation 2021, ft
Lake Elevation 2020, ft
Lake Elevation 10 Year Avg
Spillway Level


Ruth Lake Elevation
2665.0
2660.0
2655.0
2650.0
2645.0
2640.0
2635.0
2630.0
2625.0
1/1
1/15
1/29
2/12
2/26
3/11
3/25
4/8
4/22
5/6
5/20
6/3
6/17
7/1
7/15
7/29
8/12
8/26
9/9
9/23
10/7
10/21
11/4
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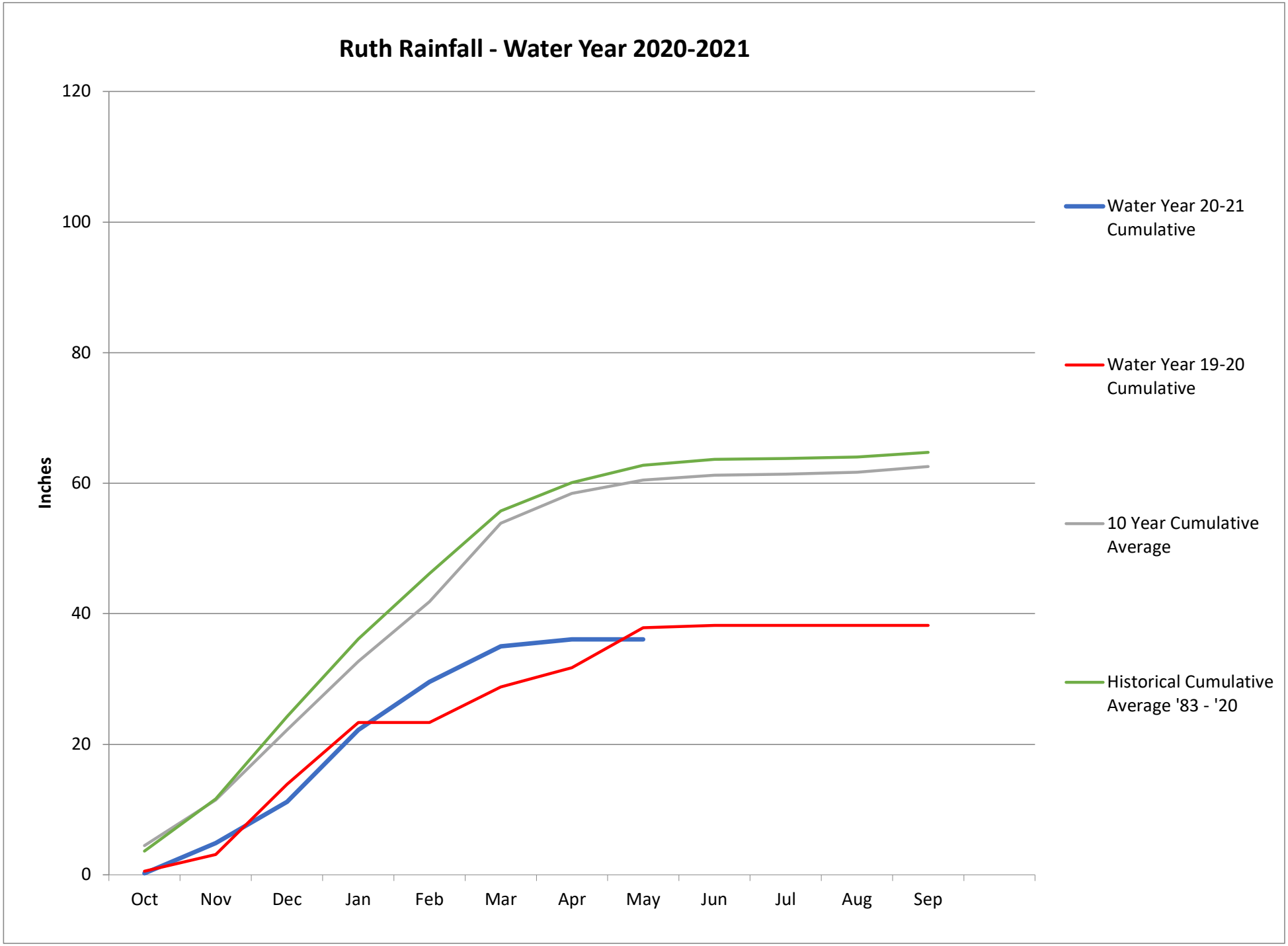
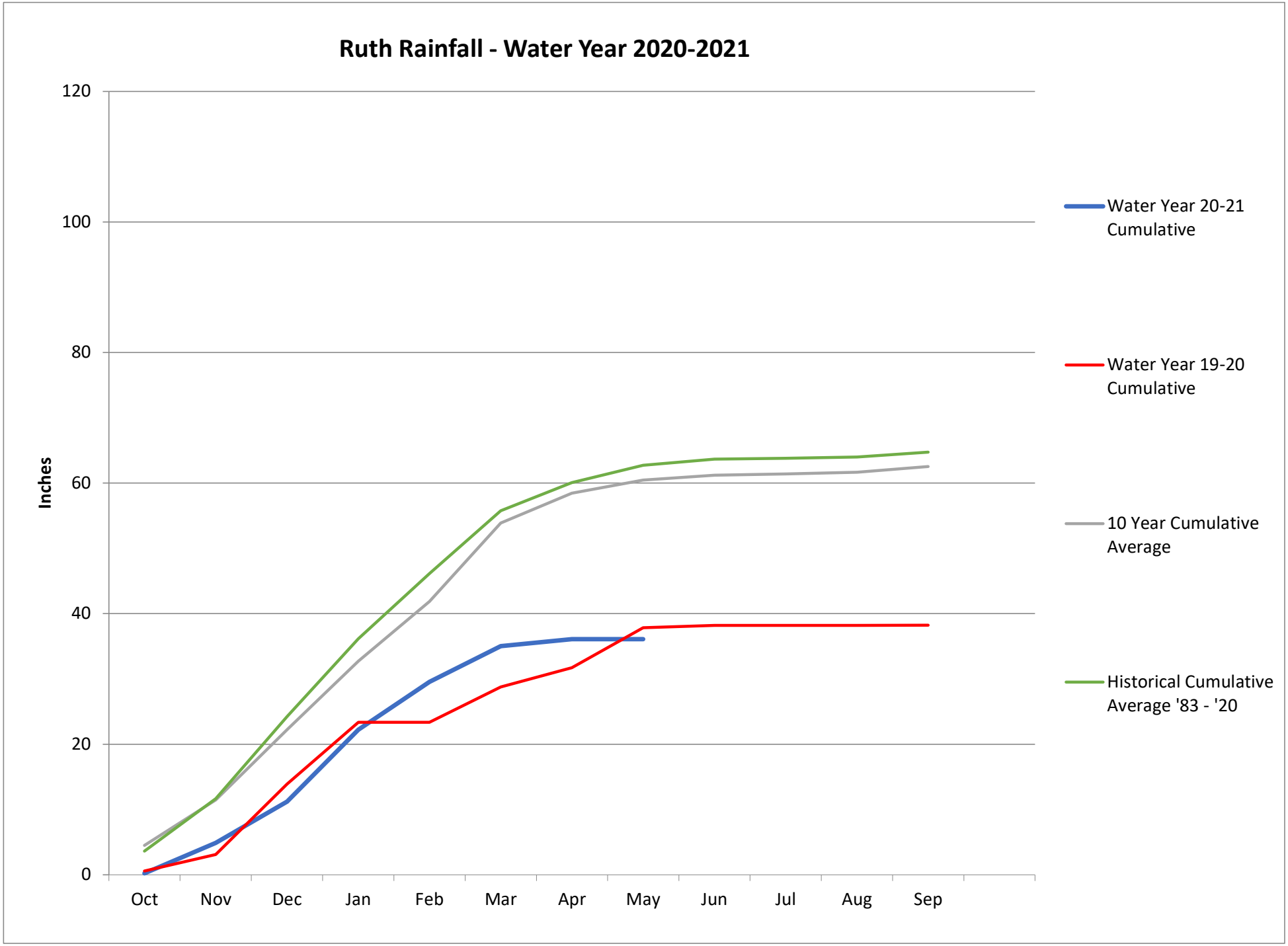
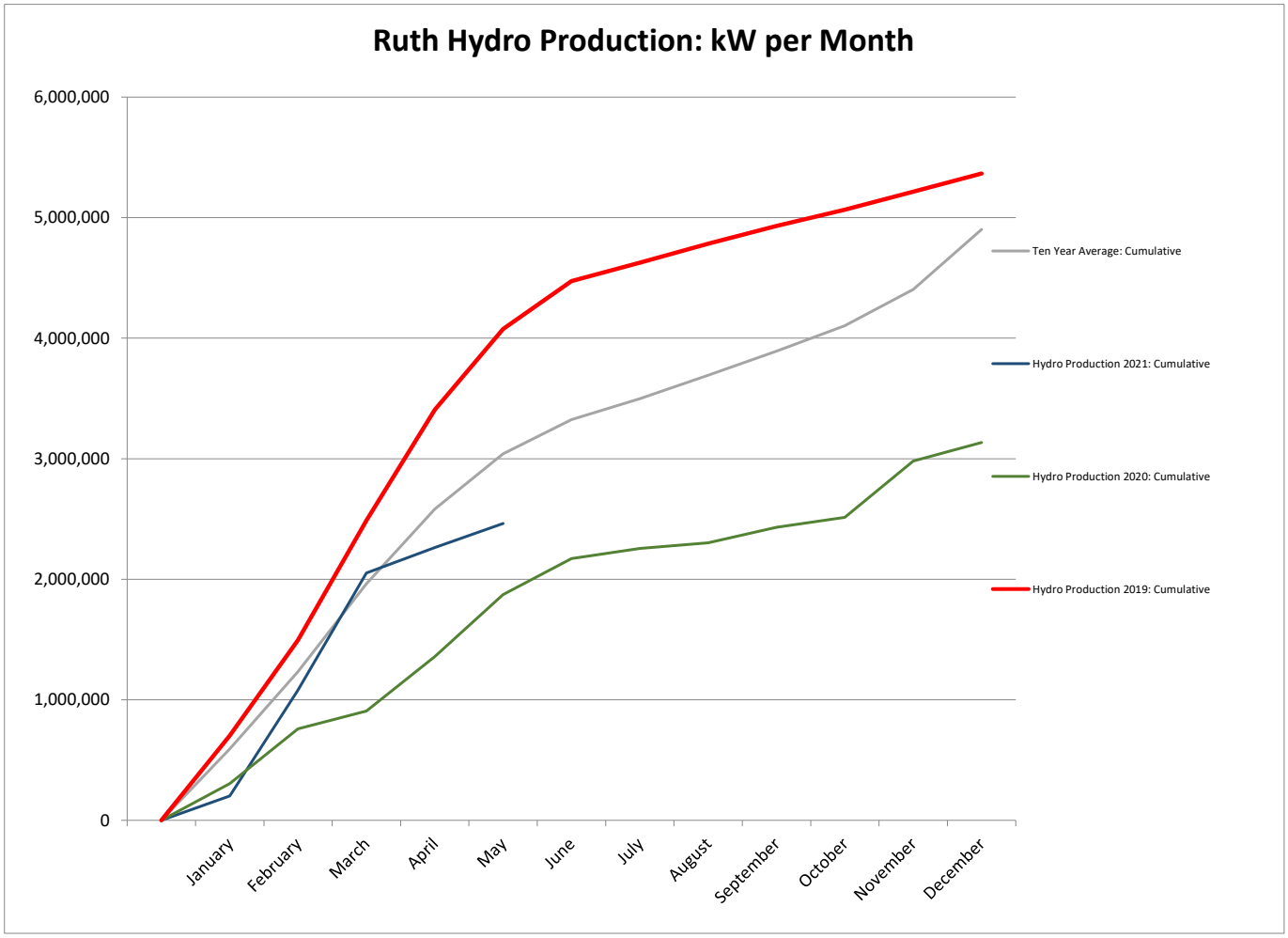
12/2
12/16
12/30
Date
Lake Elevation 2021, ft
Lake Elevation 2020, ft
Lake Elevation 10 Year Avg
Spillway Level


Ruth Rainfall - Water Year 2020-2021
Inches
120
100
80
60
40
20
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Water Year 20-21 Cumulative
Water Year 19-20 Cumulative
10 Year Cumulative Average
Historical Cumulative Average '83 - '20


Ruth Rainfall - Water Year 2020-2021
Inches
120
100
80
60
40
20
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Water Year 20-21 Cumulative
Water Year 19-20 Cumulative
10 Year Cumulative Average
Historical Cumulative Average '83 - '20


Ruth Hydro Production: kW per Month
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
January
February
March
April
May
June
July
August
September
October
November
December
Ten Year Average: Cumulative
Hydro Production 2021: Cumulative
Hydro Production 2020: Cumulative
Hydro Production 2019: Cumulative

Management

ACWA
Association of California Water Agencies

Bringing Water Together

May 10, 2021

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
EPA Docket Center, Water Docket, Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: U.S. Environmental Protection Agency's Revisions to the Unregulated Contaminant Monitoring Rule for Public Water Systems and Announcement of Public Meeting – Docket ID No. EPA–HQ– OW–2020–0530

Dear Administrator Regan:

The Association of California Water Agencies (ACWA) appreciates the opportunity to provide comments on the U.S. Environmental Protection Agency's (EPA's) proposed Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 5) for Public Water Systems and Announcement of Public Meeting (86 Fed. Reg. 13846 (Mar. 11, 2021)). ACWA's 455 public water agency members supply over 90 percent of the water delivered in California for residential, agricultural, and business uses.

I. Introduction

Per- and polyfluoroalkyl substances (PFAS) are a group of manmade chemicals that have been manufactured and widely used in various industries worldwide since the 1940s. PFAS do not break down and accumulate over time in both the environment and the human body – gaining them the nickname "forever chemicals." Exposure to high levels of PFAS can lead to adverse health effects.[1]

PFAS contamination presents challenges for many safe drinking water providers throughout our nation. Thus, efforts to combat these contaminants is taking place on both the federal and state level – with California on the frontline.[2] ACWA appreciates EPA's efforts to curb exposure to PFAS in drinking water and protect public health. In particular, ACWA applauds EPA's progress under the PFAS Action Plan,[3] including issuance of the proposed UCMR 5, release of an updated toxicity assessment for

[1] *See* EPA, *Basic Information on PFAS* (last updated Apr. 6, 2021), click here.
[2] *See* California Water Boards, *PFAS Drinking Water Resources* (last updated Apr. 13, 2021), click here.
[3] EPA, *EPA PFAS Action Plan: Program Update* (Feb. 2020), click here.

perfluorobutanesulfonic acid (PFBS),[4] and issuance of a final regulatory determination to regulate both perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA).[5] ACWA is also encouraged by your recent call for the creation of a new "EPA Council on PFAS" that would be charged with further implementation of the PFAS Action Plan as well as development of a four-year strategy to deliver critical public health protection from PFAS.[6]

II. Comments

ACWA generally supports the proposed UCMR 5, however, ACWA has several recommendations that would make the rule more workable for both public water systems and EPA. Following are ACWA's comments.

a. Provide More Flexibility Regarding Allowable Testing Methods

The proposed UCMR 5 provides certain analytical methods to measure certain PFAS within the 29 PFAS listed. EPA proposes that Method 533 would be used to test 25 PFAS and Method 537.1 could only be used to test four PFAS. Method 533 is a newer testing method that many water labs are not qualified to conduct. The labs will need to take time and resources to develop Method 533 and obtain EPA certification to use this method. Both Method 533 and Method 537.1 have detection limits that are down to two nanograms per liter.

As a result, ACWA asks that EPA provide flexibility in the allowed testing methods and permit labs to use Method 537.1 where applicable. By providing this flexibility, EPA would allow more labs to qualify for certification to conduct the necessary testing.

b. Focus on the Most Prevalent PFAS in Water Systems in Future Regulatory Actions

EPA is proposing to require public water systems to collect national occurrence data for 29 PFAS and lithium.[7] EPA will use the data collected through the final version of the UCMR 5 to inform its decision-making process on which contaminants to regulate under the Safe Drinking Water Act (SDWA).[8] There are currently no national primary drinking water regulations for PFAS. However, as mentioned above, EPA recently began the process to set enforceable drinking water standards for PFOA and PFOS.

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[4] EPA, *Human Health Toxicity Values for Perfluorobutane Sulfonic Acid (CASRN 375-73-5) and Related Compound Potassium Perfluorobutane Sulfonate* (Apr. 2021), click here.
[5] 86 Fed. Reg. 12272 (Mar. 3, 2021), click here.
[6] EPA, *Memo: EPA Council on PFAS* (Apr. 27, 2021), click here.
[7] 86 Fed. Reg. 13846 (Mar. 11, 2021), click here.
[8] 85 Fed. Reg. at 13851 (Mar. 11, 2021), click here.

It is unlikely that EPA will choose to regulate all 29 PFAS proposed to be monitored under the UCMR 5. As a result, ACWA suggests that EPA take a tailored regulatory approach and focus on the most prevalent PFAS found in water systems in its future regulatory actions. By focusing on this smaller subset of PFAS, EPA would increase the odds of prompt regulatory action and channel resources to effectively address PFAS contamination.

For example, in California there is a subset of nine PFAS that occur at higher frequency, all of which are currently listed in the proposed UCMR 5. These include: (1) PFOS, (2) perfluorohexanesulfonic acid (PFHxS), (3) PFOA, (4) PFBS, (5) perfluorohexanoic acid (PFHxA), (6) perfluoroheptanoic acid (PFHpA), (7) perfluorononanoic acid (PFNA), (8) perfluorodecanoic acid (PFDA), and (9) 4,8-dioxa-3H-perfluorononanoic acid (ADONA).[9]

III. Conclusion

ACWA appreciates the opportunity to comment on EPA's proposed UCMR 5. ACWA urges EPA to provide additional flexibility in the UCMR 5. If you have any questions regarding these comments, please contact Madeline Voitier, ACWA's Federal Relations Representative at madelinev@acwa.com.

Sincerely,

Madeline Voitier

Madeline Voitier
Federal Relations Representative

[9] California Water Boards, *Chart #5 - Detection Frequency by PFAS Chemicals* (2019/2020), click here.

May 13, 2021, Posted 21 hours ago
Edited by Kyle Packham 21 hours ago
Today, the Legislative Analyst's Office (LAO) released a new report titled,

An Initial Look at Effects of the COVID-19 Pandemic on Local Government Fiscal Condition.

Within the report, on page 22, the LAO states:

"In the near term, if the Legislature has interest in providing fiscal relief to local governments, it could allocate funds to local governments most clearly in need-such as special districts that had a direct role in responding to the COVID-19 pandemic with no access to federal fund relief. The Legislature could develop a more targeted approach to distributing additional assistance in the long term when additional information becomes available about the fiscal pressures on local governments, including how existing federal assistance has offset local revenue declines and expenditure pressures."

Figure 11 on page 14 shows the distribution of federal COVID-19 funding to date:

Figure 11

Flexible Federal COVID-19 Funding to State and Local Governments[a,b]

(In Billions)

	Coronavirus Relief Fund[c]	Local Fiscal Recovery Fund	Total
State	$7.7	$27.0	$34.7
Counties	5.8	8.1	13.9
Cities	1.8	7.8	9.6
Special Districts	—	—	—
Totals	**$15.3**	**$42.9**	**$58.2**

[a] Does not include federal funds directly provided to local governments for specific purposes.
[b] San Francisco is categorized as a county.
[c] Accounts for Coronavirus Relief Fund money allocated directly from the federal government and allocations from the state to local governments.

COVID-19 = coronavirus disease 2019.

Kyle Packham
Advocacy and Public Affairs Director
California Special Districts Association

Directors

Humboldt Bay Municipal Water District

To: Board of Directors

From: John Friedenbach

Date: June 10, 2021

Subject: Nomination of Director Rupp as Chair to ACWA Region 1 Board

****

Candidates for the ACWA Region 1 Board, comprised of a Chair, Vice-Chair, and 5 Board member positions are being sought to lead the 2022-2023 term (2 calendar years). Director J. Bruce Rupp has served as HBMWD's Region 1 representative since 2016. Director Rupp has been approached to serve as the Chair of the Region 1 Board and has expressed interest in doing so. The Chair's duties are as follows:

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine.
- Calls at least two Region membership meetings to be held at each of the ACWA. Conferences and periodic Region Board meetings.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement. Appoints Outreach Captain to help lead outreach effort within the region.
- Presides over all region activities and ensures that such activities promote and support accomplishment of ACWA's Goals.
- Makes joint recommendations to the ACWA President regarding regional appointments to all ACWA committees.
- Appoints representatives in concurrence of the region board, to serve on the region's nominating committee with the approval of the region board.
- Facilitates communication from the region board and the region membership to the ACWA board and staff.

Region chairs and vice chairs, with support from their region boards, provide the regional leadership to fulfill this charge. Financial commitment from the District consists of travel expenses and per diem for monthly Board meetings in Sacramento, with a one-night stay, and would be reimbursed in accordance with the District's Board Policy Manual for Governance.

Attached for your consideration is Resolution 2021-10 to place into Nomination Director J. Bruce Rupp, as the Chair of the Region 1 Board of the Association of California Water Agencies (ACWA).

Actions:

1) The Board nominate Director J. Bruce Rupp as a candidate for 2022-23 Chair of the ACWA Region 1 Board; and

2) Ratify Resolution 2021-10.

Resolution No. 2021-10

Resolution of the Humboldt Bay Municipal Water District Board of Directors
Nomination of J. Bruce Rupp to ACWA Region 1 Board of Directors

Whereas, The Board of Directors (Board) of the Humboldt Bay Municipal Water District does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA); and

Whereas, Treasurer/Secretary, J. Bruce Rupp, is currently serving as Board Member for ACWA Region 1; and

Whereas J. Bruce Rupp has indicated a desire to serve as the Chair of the ACWA Region 1 Board.; and

Now therefore be it resolved, that the Directors of the Humboldt Bay Municipal Water District

I. Does place its full and unreserved support in the nomination of J. Bruce Rupp for the Chair of ACWA Region 1; and
II. Does hereby determine that the expenses attendant with the service of J. Bruce Rupp in ACWA Region 1 shall be borne by the Humboldt Bay Municipal Water District.

PASSED and ADOPTED at a Regular Meeting of the Board of Directors of the Humboldt Bay Municipal Water District this 10th day of June, 2021 by the following roll call vote:

AYES:

NOES:

ABSENT:

Attest:

_____ _____

Sheri Woo, Board President J. Bruce Rupp, Board Secretary/Treasurer

ACWA

THE ROLE OF THE REGIONS

ACWA Regions provide the grassroots support to advance ACWA's legislative and regulatory agenda.

Background

As a result of ACWA's 1993 strategic planning process, known as Vision 2000, ACWA modified its governance structure from one that was based on sections to a regional-based configuration. Ten regions were established to provide geographic balance and to group agencies with similar interests.

Primary Charge of Regions

- To provide a structure where agencies can come together and discuss / resolve issues of mutual concern and interest and based on that interaction, provide representative input to the ACWA board.
- To assist the Outreach Task Force in building local grassroots support for the ACWA Outreach Program in order to advance ACWA's legislative and regulatory priorities as determined by the ACWA Board and the State Legislative, Federal Affairs or other policy committees.
- To provide a forum to educate region members on ACWA's priorities and issues of local and statewide concern.
- To assist staff with association membership recruitment at the regional level.
- To recommend specific actions to the ACWA Board on local, regional, state and federal issues as well as to recommend endorsement for various government offices and positions.

Region chairs and vice chairs, with support from their region boards, provide the regional leadership to fulfill this charge.

Note: Individual region boards CANNOT take positions, action or disseminate communication on issues and endorsements without going through the ACWA Board structure.

GENERAL DUTIES / RESPONSIBILITIES FOR REGION OFFICERS

Region Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Chair will also call at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement. Appoints Outreach Captain to help lead outreach effort within the region.
- Presides over all region activities and ensures that such activities promote and support accomplishment of ACWA's Goals.
- Makes joint recommendations to the ACWA President regarding regional appointments to all ACWA committees.
- Appoints representatives in concurrence of the region board, to serve on the region's nominating committee with the approval of the region board.
- Facilitates communication from the region board and the region membership to the ACWA board and staff.

Region Vice Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Vice Chair will also participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Performs duties of the Region Chair in the absence of the chair.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement.
- Makes joint recommendations to the ACWA president regarding regional appointments to all ACWA committees.

Region Board Member

- Participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Supports program planning and activities for the region.
- Actively participates and encourages region involvement in ACWA's Outreach Program.
- May serve as alternate for the chair and/or vice chair in their absence (if appointed) to represent the region to the ACWA Board.

PT

PAMELA TOBIN

petpyrs@surewest.net | C: 916-275-0875 | 8700 Golden Spur Drive, Granite Bay, CA 95746

With more than 17 years of involvement in local, regional, and statewide water issues as an elected and appointed official, I will bring considerable experience, knowledge, and capabilities to the office of ACWA President including: water policy development, organizational governance, finance, collaboration, and coalition building. I have a passion for helping agencies and organizations to fulfill their mission and support their customers and communities. I currently serve as ACWA Vice President and on the ACWA-Joint Powers Insurance Authority Board of Directors, Executive Committee, and Liability Committee. I have actively served in ACWA leadership as a ACWA Region 4 Chair, and as a member of the Federal Affairs and Local Government Committees. I am currently Board President of the San Juan Water District; Past Chair of the Sacramento Groundwater Authority (SGA) and Past Board Chair of the Regional Water Authority (RWA).

Skills

- Financial Leadership
- Policy Development
- Contract Negotiations
- Collaboration and Coalition Building
- Public Agency and Organizational Governance
- Strategic Planning
- Testimony before State and Federal Agencies / Elected Bodies

Related Water Experience

Association of California Water Agencies Sacramento, CA

Vice President, Executive Committee (2020-2021)
Member, Board of Directors (2018-2019)
Member, Strategic Plan Steering Committee (2021)
Chair, Region 4 Board of Directors (2018-2019)
Member, Region 4 Board of Directors (Since 2014)
Member, Federal Affairs Committee (2014-2019)
Member Local Government Committee (2014-2015)

- Attended ACWA Conferences (2004-current)
- Attended ACWA's Washington D.C. Conference (2015-current), including serving as member advocate in ACWA's lobbying visits with members of Congress and their staffs, Administration officials, and other D.C. leadership.

ACWA Joint Powers Insurance Authority Roseville, CA

Member, Board of Directors *(01/2016 – Current)*

- Participate in monthly ACWA-JPIA Board meetings
- Provide organizational leadership and collaborate with member partners to establish long-term goals, strategies, and policies
- Member of the ACWA – JPIA's Executive and Liability Committees

San Juan Water District
Granite Bay, CA

San Juan is both a wholesale and retail agency, with over 10,000 retail connections and serving a total wholesale population of over 150,000 in North-Eastern Sacramento County and Southern Placer County. San Juan has one of the most senior water rights in California (1853) and is also an American River Division contractor with the Federal Central Valley Project

Member, Board of Directors (*01/2004 – Current)*
President (2016, 2012,2007)

- Provide leadership and guidance, facilitate solutions and collaboration on a variety issues including:
  - District operations and governance
  - Regional water transfers
  - Groundwater / conjunctive use planning
  - District financial issues and budget
  - District policies and business practices

Regional Water Authority & Sacramento Groundwater Authority
Citrus Heights, CA

Each Board is comprised of General Managers and Elected Officials from more than 22 public water agencies, private water companies, cities, and counties

Member, Board of Directors (01/2004 – 2019)

- Represent San Juan WD on the RWA Board since 2004, including providing leadership as Past Chair (2012) and long-time member of the Executive Committee (2011-2014, 2016-current)
- Received 2018 RWA Distinguished Service Award in recognition of many years of active service and contributions
- Facilitate open dialogue, resolved conflicts, and negotiated agreements between parties to reach win-win solutions and clarify goals
- Shepherd consensus and collaboration with professional staff
- Serve as Past Chair of the Sacramento Groundwater Authority and Board member since 2004 (Past Chair - 2007 & 2008).

Professional Experience

- Curtis Real Estate – Realtor (2004-Present)
- Property Exchange Pro LLC – Owner, (2015- Present) – Provide comprehensive real estate services for residential and land markets.

Volunteer & Community Involvement

- Great Pyrenees Rescue – President (1996-Present). Sierra Pacific Great Pyrenees Rescue is a non-profit organization, charged with saving lives and restoring health of Great Pyrenees and Great Pyrenees mixed dogs. In the past 35 years, I rescued over 2,900 dogs through this program.
- 4-H Club of Placer County – Served as Community Leader (1982-1996)
- Alliance of Therapy Dogs – Tester / Observer (20 Years)

Awards

- Regional Water Authority - 2018 Distinguished Service Award
- Volunteer Center of Sacramento – 2007 Volunteer Spirit Award, "Sacramento Community Change Maker"

PAMELA TOBIN

petpyrs@surewest.net | C: 916-275-0875

Statement of Qualifications

Hello ACWA Members:

My name is Pam Tobin and I currently serve as ACWA's **Vice President**. I am asking for your support as I seek the office of **ACWA President for the 2022-23 term.**

My track record of accomplishments as ACWA Vice President and my more than 17 years of experience in California water at the local, regional, and statewide levels, make me uniquely qualified for the role of ACWA President.

During my term as Vice President, ACWA members -- like so many other organizations -- faced unprecedented challenges caused by the COVID-19 pandemic. I am so appreciative of, and gratified by, the water community's success in keeping employees safe while ensuring uninterrupted reliable and safe water delivery.

One of the questions I focused on was "How can ACWA support its members?" I am especially proud of the "Leadership to Leadership" Program that I created to keep members connected virtually, to learn about their challenges, and identify ways that ACWA could support them. I also worked with the ACWA staff to develop on-line workshops and sessions to help members navigate the changed world we are all living and working in. We covered topics ranging from financial impacts to safety protocols, to communicating with the public virtually.

As we emerge from the pandemic and confront a critically dry year and the uncertainty of what is to come, I will continue to look for opportunities to support ACWA members and help them connect and share strategies with each other. I also will advocate for support and funding from both the state and federal administrations. That is what ACWA is all about: ACWA bringing the issues, the solutions, and people together.

On the policy front, it has been rewarding to work closely with the ACWA Board to devise statewide policies on everything from COVID-19 debt relief, to safe drinking water access and quality, to SGMA implementation, drought contingency planning, and providing input to the Newsom Administration on California's Water Resiliency Portfolio. As a member of the ACWA Board Steering Committee, I helped shape a future path for ACWA in 2019 through a new five-year Strategic Plan.

Through these challenges and activities, I have brought both my professional and personal skills to the table. My competencies around policy development, finance, and conflict resolution have helped me work collaboratively with all parties to find the "win-win" outcome.

I am a leader who connects, listens, learns, and works to bring all parties together. I am not intimidated by tough issues. I am an independent thinker and don't shy away from making difficult decisions.

Professional Background

ACWA

I serve as the Association's representative to the ACWA-JPIA Board, Executive Committee, and its Liability Committee, and worked to provide and expand critical services for ACWA member agencies while ensuring JPIA's fiscal health. In addition to my service as ACWA Vice President, my prior ACWA experience includes serving as a Board member, Region 4 Chair, and as a member of numerous ACWA committees.

San Juan Water District

I have been on the Board of Directors of the San Juan Water District (San Juan) in Northern California since 2004, including three terms as President.

Serving on the board at San Juan has provided me with the opportunity to understand both the wholesale and retail side of the water business. We serve families and businesses. We possess some of the most senior water rights in California (1853), as well as being an American River Division contractor with the federal Central Valley Project. San Juan is also active in regional groundwater management and conjunctive use planning, including SGMA implementation. Addressing all of these issues has helped me better understand the challenges that other agencies throughout California experience.

Regional Leadership

I have served multiple terms as Chair of both the Sacramento Regional Water Authority and the Sacramento Groundwater Authority. Through these roles, I have worked directly with more than 22 public water agencies, private water companies, cities, and counties, and have built partnerships in pursuit of successful collaborative solutions.

On a Personal Note

So, what do I do in my spare time? You might be surprised to know that I am a long-time realtor and property developer with over 30 years as a business owner. Understanding the nexus between land-use planning and water management has been invaluable in my water role and in my professional life. But my real passion is caring for our four-legged friends. I am focused on showing my dogs and rescuing homeless dogs. It is the hardest and best thing I have ever done.

I hail from Laconia, New Hampshire, growing up in the Lakes Region. I have called California home since 1971. I have been married to my wonderful, supportive husband for 40 years. I have two grown children -- my oldest son is a senior engineer in upper management for the City of Los Angeles and the youngest is an attorney in Los Angeles. I also have four grandchildren.

Finally, I did not come to the decision to run for ACWA President lightly. Everything I have done to date, including serving as your ACWA Vice-President, has prepared me for this moment. I look forward to meeting with many of you to share my ACWA vision and commitment to you personally and hope that I can count on your support for ACWA President.

Pamela Tobin

My Priorities for ACWA

June 2021

As ACWA Vice President, I accomplished the priorities that I committed to during my campaign:

Demystify ACWA and Increase Member Involvement – *I pledged to increase member involvement and to keep you connected to ACWA.*

- ✓ In 2020, I created and co-facilitated "Leadership to Leadership." This virtual town hallD rotates among ACWA regions north and south, to foster connection between ACWA and its members and among the members themselves. The response to the program has been overwhelmingly positive and has helped me and ACWA staff understand how ACWA can do better and provide more value for its members.

- **Support the 2020 California Resiliency Portfolio and Advance Forest Management –** *In keeping with its past practice, ACWA has stepped up to provide constructive and innovative input on behalf of members to drive the state's water policy.*

  - ✓ As Vice President, I was actively involved in ACWA's effort to solicit member input to shape ACWA's policies at the Board level, including ACWA's comprehensive comments to the Newsom Administration on its 2020 California Resiliency Portfolio. I actively engaged on ACWA's priority issues, both state and federal, including COVID-19 debt relief, Voluntary Agreements, SGMA implementation, climate resiliency, and water infrastructure investment.

  - ✓ Securing funding for improved forest management and elevating the priorities to reduce fire risk and protect our water at the source have been key features of ACWA's comments. Additionally, I helped to build awareness of the catastrophic burden from wildfires that has been placed on local agencies within these high-risk watersheds.

- **Dealing with the COVID–19 PANDEMIC –** *ACWA, like every other organization, faced unprecedented challenges in coping with the impacts of the pandemic on both the association and its members.*

  - ✓ In my role on ACWA's Executive Committee and as its representative to the ACWA-Joint Powers Authority Executive Committee and Liability Committee, I advanced critical workforce issues, limiting exposure and workers' compensation claims related to COVID–19.

- ✓ With my strong background in finance, I contributed valuable expertise as the ACWA Board adjusted its budget and financial plans while working to protect non-dues revenue sources by adapting events to virtual formats. I also suggested and supported the ACWA team in developing a series of workshops to assist agencies with the myriad challenges resulting from the pandemic. Workshops covered a range of topics from communicating with the public to financial and legal issues.

- ✓ In early 2021, I called for a review of the 2020 ACWA Strategic Plan to update the budget and align activities accordingly to reflect COVID-19 impacts.

As ACWA President, I will continue to be committed to:

- Putting the people of ACWA first by elevating the highly successful "Leadership to Leadership" program, with an emphasis on unifying members and supporting each other as we emerge from COVID-19 into a severe drought.
- Capitalize on our collective resilience and lessons learned from the pandemic experience to make our water industry stronger and more responsive to the public we serve.
- Ensure that ALL voices within the ACWA family are heard! Respect differing viewpoints and help members connect and find common ground. Increase diversity, inclusion, and equity on ACWA's Board of Directors, committees, and subcommittees.
- Improve transparency in ACWA's policy and operational decisions.
- Advance forest management and address ACWA member needs resulting from wildfire impacts.
- Shape and support California's Water Resiliency Portfolio.

"My accomplishments as ACWA Vice President, experience in California water and collaborative leadership approach make me uniquely qualified for the role of ACWA President." – Pam Tobin, ACWA Vice President

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ELECT CATHY GREEN AS ACWA VICE PRESIDENT

COMMITMENT · EXPERIENCE · LEADERSHIP

ACWA BOARD MEMBER

· Executive Committee (2020-current)
· Region 10 Chair (2018-19)
· Region 10 Vice Chair (2016-17, 2020-current)
· Region 10 Board Member (2012-current)

ACWA COMMITTEES

· Water Quality Committee (2012-current)
· Energy Committee (2019-current)
· State Legislative Committee (2012-2015)

ORANGE COUNTY WATER DISTRICT, Director (2010-current)

· President 2015-16
· 1st Vice President (2013, 2014, 2019-current)
· Water Advisory Committee of Orange County (WACO): Chair
· Water Issues Committee: Chair
· Communications/Legislative Liaison Committee: Vice Chair

CIVIC LEADERSHIP

· City of Huntington Beach Mayor (2003, 2009)
· Councilwoman (2002-2010)

PROFESSIONAL EXPERIENCE

· Registered Nurse
· Law degree

My vision for ACWA is to embrace its motto -- Bringing Water Together -- which, for me, is about unifying ACWA members and working collaboratively with diverse stakeholders to find smart solutions to the challenges we are now facing.

ORANGE COUNTY WATER DISTRICT
SINCE 1933
ORANGE COUNTY'S GROUNDWATER AUTHORITY

RE: OCWD First Vice President Cathy Green for ACWA Vice President

Greetings:

On behalf of Orange County Water District (OCWD), it is a great honor to request your agency's support and vote for Cathy Green for election to the office of Vice President of the Association of California Water Agencies (ACWA). We are fortunate to have such a qualified candidate in Director Green, who has the OCWD Board's unanimous support for serving in this role.

As an active member of ACWA since 2012, Director Green has served on various ACWA committees, and as Chair and Vice Chair of ACWA Region 10; as such, she has formed positive working relationships with numerous contacts throughout California. She possesses a working knowledge of water industry issues, strength of character, leadership capabilities, and experience in matters related to the performance of the duties of the office of ACWA Vice President.

Director Green has been an impactful member of the OCWD Board since 2010, including serving as President and First Vice President. OCWD has developed several innovative water programs and award-winning projects like the Groundwater Replenishment System, which are being duplicated by water agencies worldwide.

Prior to Director Green's service on OCWD's Board, she was elected to two consecutive terms on the Huntington Beach City Council, where she served two terms as Mayor. At the city, she served on the Orange County Transportation Authority Board and was a Director of OC Clean Tech. Director Green serves on several other boards such as the Huntington Valley Boys and Girls Club and the Orange County Explorer Program. She is also a member of the American Legion Unit 133 Auxiliary, Huntington Beach Community Emergency Response Team (CERT), and the Elks Lodge 1959. She sits on the Advisory Board of the Bolsa Chica Conservancy and is a founding member of Amigos de Bolsa Chica.

Director Green is the recipient of many awards. Her most recent is a 2019 Boys and Girls Clubs of America National Service to Youth Award. In 2010, she was the recipient of the Spurgeon Award, and, in 2005, she was named Woman of the Year by then State Senator John Campbell. Other awards include the 2007 Peace Maker Award from the Greater Huntington Beach Interfaith Council, the 2006 United Way Excellence in Child Care Planning, and the Golden West College Pillar of Achievement Award. She has also been recognized as Huntington Beach's Citizen of the Year by the Huntington

Beach Chamber of Commerce, a Huntington Beach Soroptimist's Woman of Distinction, and a Bolsa Chica Conservancy Conservator of the Year.

Director Green's experience as the Mayor of Huntington Beach and later as OCWD's Board President, along with her involvement in other organizations, has contributed to her broad and expansive knowledge of local and statewide issues, making her very qualified for the position of ACWA Vice President. She has made numerous friendships and contacts statewide that could serve her well in leading ACWA into the future.

OCWD's Board has the highest confidence in Director Green and her proven leadership abilities, which can help guide ACWA to continued organizational success and excellence in serving its member agencies.

More information about Director Green's qualifications for the office of ACWA Vice President, along with a Template Resolution of Support for Cathy Green, can be found on OCWD's website. Additionally, if you have any questions or requests for additional information, kindly contact OCWD General Manager Mike Markus at mmarkus@OCWD.com or 714-378-3305. Thank you for your consideration of Director Green for the office of ACWA Vice President.

Sincerely,

Stephen R. Sheldon

Stephen R. Sheldon
Board President

Michael R. Markus, P.E., D. WRE.
General Manager

SINCE 1933

BIOGRAPHY

Cathy Green, 1st Vice President | Division 6
Orange County Water District
Service Area: Parts of: Fountain Valley and Huntington Beach

Cathy Green was elected to the Orange County Water District (OCWD) Board of Directors in November 2010 and was re-elected in 2012, 2016 and 2020. She was selected by the board to serve as its 2015 and 2016 president. She currently serves as 1st vice president, a position she previously held in 2013, 2014 and 2020.

Prior to Director Green's service on OCWD's board, she was elected to two consecutive terms on the Huntington Beach City Council where she served two terms as mayor. Director Green has been involved as a council liaison and committee member on many city boards, commissions and committees. She served on the Orange County Transportation Authority Board and was a director of OC Clean Tech.

Director Green's leadership in the water industry includes serving as an active member of the Association of California Water Agencies (ACWA) since 2012, including serving on ACWA's Executive Committee since 2020, the ACWA Board since 2016, and the Region 10 Board since 2012. She held the position of ACWA Region 10 Chair from 2018-2019 and served as Vice Chair since 2020, and previously from 2016-2017. Director Green has also served on several ACWA Committees including the Water Quality Committee since 2012, the Energy Committee since 2019, and the State Legislative Committee from 2012-2015.

Director Green serves on the boards of the Huntington Valley Boys and Girls Club and the Orange County Explorer Program; serves on the Huntington Beach City School District Medi-Cal Collaborative; is a director of the Prime Health Foundation and the Huntington Beach Hospital; is a member of the American Legion Unit 133 Auxiliary, Huntington Beach Community Emergency Response Team (CERT) and the Elks Lodge 1959; and is on the Advisory Board of the Bolsa Chica Conservancy. She is a founding member of Amigos de Bolsa Chica.

In addition, her community involvement has included serving as president of the Therapeutic Riding Center and the Huntington Beach Community Clinic, chair of the Orange County Emergency Medical Care Committee and of Explorer's/Learning for Life, first aid chair of Huntington Beach CERT, and board member of the OC Boy Scouts of America Council and American Family Housing.

Director Green is the recipient of many awards. Her most recent is a 2020 Boys and Girls Clubs of America National Service to Youth Award. In 2010, she was the recipient of the Spurgeon Award, and, in 2005, she was named Woman of the Year by then State Senator John Campbell. Other awards include the 2006 United Way Excellence in Child Care Planning, the 2007 Peace Maker Award from the Greater Huntington Beach Interfaith Council and the Golden West College Pillar of Achievement Award. She has also been recognized as Huntington Beach's Citizen of the Year by the Huntington Beach Chamber of Commerce, a Huntington Beach Soroptimist's Woman of Distinction and a Bolsa Chica Conservancy Conservator of the Year.

Director Green is a registered nurse and holds a degree in law. As a nurse, Director Green worked in the health care areas of intensive care, student health, community health, and patient advocacy. In addition to nursing, she gained experience with a variety of environmental projects while associated with Lockhart and Associates.

Director Green and her husband Peter have been residents of Huntington Beach since 1970 where they raised their two children Teresa and Tom.

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 MEETING AGENDA

May 27, 2021 -Thursday, 3:30 p.m.

COVID-19 NOTICE

RCEA AND HUMBOLDT BAY MUNICIPAL WATER DISTRICT OFFICES WILL NOT BE OPEN TO THE PUBLIC FOR THIS MEETING

Pursuant to the Governor's Executive Order N-29-20 of March 17, 2020, and the Humboldt County Health Officer's March 30, 2020, Shelter-in-Place Order, the RCEA Board of Directors meeting will not be convened in a physical location. Board members will participate in the meeting via an online Zoom video conference.

To listen to the meeting by phone, call (669) 900-6833 or (253) 215-8782. Enter webinar ID: 819 7236 8051. **To watch the meeting online**, join the Zoom webinar at *https://us02web.zoom.us/j/81972368051*.

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.

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.

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."

In compliance with the Americans with Disabilities Act, any member of the public needing special accommodation to participate in this meeting should call (707) 269-1700 or email *Ltaketa@redwoodenergy.org* at least 3 business days before the meeting. Advance notice enables RCEA staff to make their best effort to reasonably accommodate access to this meeting while maintaining public safety.

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 of Directors, including those received less than 72 hours prior to the RCEA Board meeting, will be made available to the public at *www.redwoodenergy.org*.

OPEN SESSION Call to Order

1. REPORTS FROM MEMBER ENTITIES

2. ORAL COMMUNICATIONS

This time is provided for people to address the Board 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.

3. 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.

3.1 Approve Minutes of April 22, 2021, Board Meeting.

3.2 Approve Disbursements Report.

3.3 Accept Financial Reports.

3.4 Approve a Contract with The Energy Authority, Including Resource Management Agreement and 2021 Task Order 1 for Operational Services, and Authorize the Executive Director to Execute the Contract and Any Associated Documents.

3.5 Approve Professional Services Agreement with Don Arambula in an Amount Not to Exceed $76,000 for Rural Regional Energy Network Business Plan Development and Authorize the Executive Director to Execute All Applicable Documents Pending RCEA Legal Counsel Review.

3.6 Authorize the Executive Director to Execute Amendment No. 3 to RCEA's Power Purchase Agreement with Humboldt Sawmill Company Clarifying Excess Delivered Energy Price Applicability, Crediting and Accounting.

3.7 Accept RCEA Supplier Diversity Report.

4. REMOVED FROM CONSENT CALENDAR ITEMS

Items removed from the Consent Calendar will be heard under this section.

COMMUNITY CHOICE ENERGY (CCE) BUSINESS (Confirm CCE Quorum)

Items under this section of the agenda relate to CCE-specific business matters that fall under RCEA's CCE voting provisions, with only CCE-participating jurisdictions voting on these matters with weighted voting as established in the RCEA joint powers agreement.

5. OLD CCE BUSINESS - None

6. NEW CCE BUSINESS

6.1. Net Energy Metering Legislation Update

Discuss and potentially establish an RCEA position on Assembly Bill 1139.

END OF COMMUNITY CHOICE ENERGY (CCE) BUSINESS

7. OLD BUSINESS

7.1. Community Grid Program and Behind-the-Meter Resource Adequacy Contract with Swell Energy

Approve the Behind the Retail Meter Storage Capacity Agreement and Co-Marketing Agreement with Swell Energy and authorize the Executive Director to execute all associated documents, contingent on final review and approval by RCEA legal counsel.

8. NEW BUSINESS

8.1. Creation of Deputy Executive Director Position and Updates to RCEA Organization Chart

Approve:

1. Creation of a Deputy Executive Director position
2. Update to the RCEA Organization Chart
3. Revising the Director of Operations position to Director of Infrastructure Planning and Operations
4. Revising the Contracts and Grants Specialist position to Contracts and Grants Manager.

8.2 Salary Schedule Update

Approve 1) update to the RCEA salary schedule and 2) the addition of César Chávez Day and two floating holidays to the paid holidays provided to RCEA staff..

8.3 FY 21-22 Preliminary Draft Budget

Provide guidance and input to staff on draft FY21-22 budget.

8.4 Offshore Wind Energy Harbor Redevelopment

Approve providing funding to the Humboldt Bay Harbor District to plan and seek funding for the redevelopment of harbor infrastructure necessary for future offshore wind energy development activities.

9. STAFF REPORTS

10. FUTURE AGENDA ITEMS

Any request that requires Board action will be set by the Board for a future agenda or referred to staff.

11. ADJOURNMENT

NEXT REGULAR MEETING
Thursday, June 24, 2021, 3:30 p.m.
This meeting will be an online teleconference following shelter-in-place orders.

RREDC
Redwood Region Economic Development Commission
Prosperity Center 520 E Street, 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

May 24, 2021 at 6:30 pm
AGENDA

This meeting has been cancelled.

Next RREDC Board meeting is June 28, 2021.

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.