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## Central Valley Regional Water Quality Control Board

8 April 2022

**CERTIFIED MAIL**

7020-1810-0002-0569-6724

Jason Julienne  
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California Department of Fish and Wildlife  
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**CERTIFIED MAIL**

7020-1810-0002-0569-6717

Michelle Workman  
East Bay Municipal Utility District  
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Lodi CA 95240

**NOTICE OF APPLICABILITY; GENERAL WASTE DISCHARGE REQUIREMENTS FOR COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION (CAAP) FACILITY DISCHARGES TO SURFACE WATERS; ORDER R5-2019-0079 (CAAP GENERAL ORDER, NPDES NO. CAG135001); CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW) AND EAST BAY MUNICIPAL UTILITY DISTRICT (EBMUD), MOKELUMNE RIVER FISH HATCHERY, SAN JOAQUIN COUNTY**

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) issued a Notice of Applicability (NOA) to the California Department of Fish and Wildlife and the East Bay Municipal Utility District (collectively referred to as Discharger) on 15 January 2015 for coverage under the CAAP General Order for the Mokelumne River Fish Hatchery (Facility).

On 5 December 2019, the Central Valley Water Board adopted Order R5-2019-0079 renewing the CAAP General Order. The Discharger submitted a Notice of Intent on 19 June 2019 to continue coverage for the Facility under the CAAP General Order. Effective **1 May 2022**, this NOA provides continued coverage for the Facility under the CAAP General Order to discharge to the Mokelumne River, superseding the previous NOA issued 15 January 2015 (R5-2014-0161-017). CAAP General Order R5-2019-0079-001 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001 are assigned for this Facility. Please reference your CAAP General Order number **R5-2019-0079-007** in all correspondence and submitted documents. The following enclosures are included as part of this NOA:

- 1) Enclosure A - Administrative Information
- 2) Enclosure B - Location Map
- 3) Enclosure C - Flow Schematic
- 4) Enclosure D - Monitoring and Reporting Program
- 5) Enclosure E - Approved Chemical and Aquaculture Drug Use

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MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

The enclosed [CAAP General Order](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders) ([http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders)) is also available online. You are urged to familiarize yourself with the entire contents of the enclosed document. The Facility operations and discharges shall be managed in accordance with the requirements contained in the CAAP General Order, this NOA, and with the information submitted by the Discharger.

## **I. FACILITY INFORMATION/DISCHARGE DESCRIPTION**

The Facility is located on the south bank of the Mokelumne River, immediately downstream of Camanche Dam in Clements, San Joaquin County (T4N, R6E, MDB&M, latitude N 38° 13' 29"/longitude W 121° 01' 29"), as shown in Enclosure B. The Facility is located on property owned by the East Bay Municipal Utility District (EBMUD). The Facility is owned by EBMUD and is operated by the California Department of Fish and Wildlife (CDFW).

The Facility produces juvenile Chinook salmon and steelhead to mitigate the loss of anadromous fisheries resources due to the operation of Camanche Dam. CDFW traps adult fish, collects, incubates, and hatches fish eggs, and rears juvenile fish. The fish rearing occurs in troughs and concrete raceways utilizing a flow-through, single-pass water system. The Facility consists of two fish ladders for adult salmon and steelhead, a gathering tank with a capacity of about 800 fish, four holding ponds for adult fish (60 feet long by 10 feet wide and 6 feet deep), a hatchery spawning and incubation building, 48 fiberglass troughs (16 feet long by 3 feet wide and 30 inches deep) for rearing eggs and fry, 20 cement rearing raceways (322 feet long by 10 feet wide and 42 inches deep), two circular standalone fish tanks used for research (15 feet in diameter by 3 feet deep), and an office/shop/freezer building.

The Facility spawning process begins at the entrance of the fish ladder. Once fish get to the top of the ladder, salmon and steelhead pass through a one-way gate that keeps the fish from exiting the gathering tank. When the eggs hatch, the fish are kept in troughs for about 12-13 weeks until they are ready to be transferred to the raceways. Salmon are reared for up to 8 months (4 inches) and trucked to be planted at the Sherman Island Levee Road above the Antioch Bridge on the San Joaquin River, while steelhead are kept for up to 14 months (8 inches) and planted at New Hope Landing or at the Feist Ranch on the Mokelumne River.

Intake water from Camanche Reservoir, upstream from Camanche Dam, is conveyed to the hatchery via a common 42-inch line fed by the Deck Line or the Gallery Line. Water intake for the Facility was reported by the Discharger as approximately 49 million gallons per day (mgd). All water is used on a flow-through basis, and the process wastewater is discharged to the Mokelumne River through multiple outfalls. Wastewater from the incubator building, raceways, and local surface drainage is directed to two parallel settling ponds (1500 feet long by 30 feet wide and 6 feet deep). The effluent from the two parallel settling ponds is discharged into a third settling pond (1600 feet long by 30 feet wide and 6 feet deep) before being shunted to Outfall 001.

In the Notice of Intent, the Discharger reported the predicted 5-year maximum annual harvestable fish production (Table 1). The Discharger also reported an expected maximum monthly feed use of 51,000 pounds and an average annual feed use of 164,500 pounds for the Facility.

**Table 1. 5-Year Maximum Aquatic Animal Production**

<b>Species</b>	<b>5-Year Maximum Annual Harvestable Maximum Hatchery Aquatic Animal Production (lbs)</b>
Chinook Salmon	130,000
Steel Head Trout	65,000

Wastewater is discharged from the Facility to the Mokelumne River through three outfalls (001, 002, and 003) as shown in Enclosure C, and as described below:

**Outfall 001** – The settling pond overflow is discharged to the Mokelumne River through Outfall 001. Raceway cleaning wastewater is diverted into a separate drain system, gravity fed to the raceway pump station and pumped to earthen settling ponds. Discharges to the settling ponds usually occur twice weekly during peak production months (March, April, and May) and once monthly for the rest of the year. Average flows into the settling ponds are 6 cubic feet per second (cfs) (3.8 mgd). The hatchery building is operated from October through July and flows average 4.5 cfs (2.9 mgd). Wastewater from the hatchery building and storm water runoff is also discharged from Outfall 001. Latitude: 38° 13' 34.22" N; and Longitude: 121° 01' 32.42" W.

**Outfall 002** – Wastewater from the raceways and holding ponds is discharged from Outfall 002. The estimated peak flow from Outfall 002 occurs in April and is approximately 55 cfs (35.5 mgd). Latitude: 38° 13' 34.17" N; and Longitude: 121° 01' 32.24" W.

**Outfall 003** –Wastewater from the sand filter backwash and two standalone fish tanks is discharged from Outfall 003. Excess flow from the raceways and holding ponds discharging to Outfall 002 is also routed occasionally to Outfall 003. Outfall 003 is usually operated from October through April and the estimated flow ranges between 3 cfs to 35 cfs (2 mgd to 22 mgd). Latitude: 38° 13' 34.49" N; and Longitude: 121° 01' 25.12" W.

All domestic wastewater is discharged to an on-site septic system, which is regulated by the County of San Joaquin.

## **II. DISCHARGE PROHIBITIONS (CAAP GENERAL ORDER SECTION IV)**

The Discharge Prohibitions contained in CAAP General Order Section IV are applicable to this Facility.

### III. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

#### A. Effluent Limitations (CAAP General Order Section V)

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the CAAP General Order. The discharge exhibits reasonable potential for formaldehyde, chlorine, and total suspended solids. There is no reasonable potential for priority pollutant metals based on 2019 monitoring results. The following effluent limitations are applicable to this discharge and are contained in Section V.A of the CAAP General Order:

1. Discharges to surface waters shall not exceed the effluent limitations contained in Table 2 below.

**Table 2. Effluent Limitations**

<b>Parameter</b>	<b>Units</b>	<b>Average Monthly Effluent Limitation</b>	<b>Maximum Daily Effluent Limitation</b>
Formaldehyde	mg/L	0.65	1.3
Chlorine	mg/L	--	0.018

2. Compliance with the effluent limitations for formaldehyde may be evaluated using an estimated effluent concentration in lieu of effluent monitoring data. The estimated effluent concentration shall be calculated as described in the CAAP General Order (Section IX.A of Attachment C, Monitoring and Reporting Program).
3. The Discharger shall minimize the discharge of Total Suspended Solids through the implementation of the best management practices established in Special Provision VII.C.3 of the CAAP General Order.

#### B. Land Discharge Specifications (CAAP General Order Section V.C)

The Land Discharge Specifications contained in CAAP General Order Section V.C are applicable to this Facility.

### IV. RECEIVING WATER LIMITATIONS

#### A. Surface Water Limitations (CAAP General Order Section VI.A)

The discharge to the Mokelumne River is subject to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan), therefore, the receiving water limitations contained in the CAAP General Order based on the Basin Plan, as indicated below, are applicable to this discharge.

- Un-ionized Ammonia (VI.A.1) – Not Applicable
- Bacteria (VI.A.2)
- Biostimulatory Substances (VI.A.3)
- Chemical Constituents (VI.A.4)

- Color (VI.A.5)
- Dissolved Oxygen (VI.A.6.a and VI.A.6.b) – Per CAAP General Order Section VI.A.6.a, the dissolved oxygen concentration in the Mokelumne River shall not be reduced below 7.0 mg/l
- Electrical Conductivity (VI.A.7) – Not Applicable
- Floating Material (VI.A.8)
- Oil and Grease (VI.A.9)
- pH (VI.A.10)
- Pesticides ((VI.A.11.a, b, c, d, e, g)
- Radioactivity (VI.A.12)
- Suspended Sediments (VI.A.13)
- Settleable Substances (VI.A.14)
- Suspended Material (VI.A.15)
- Taste and Odors (VI.A.16)
- Temperature (VI.A.17)
- Toxicity (VI.A.19)
- Turbidity (VI.A.20.a)

**B. Ground Water Limitations (CAAP General Order Section VI.B)**

The Groundwater Limitations contained in CAAP General Order Section VI.B are applicable to this Facility.

**V. PROVISIONS**

Provisions are contained in Section VII of the CAAP General Order, and the applicable provisions are referenced below.

**A. Standard Provisions. (CAAP General Order Section VII.A)**

The Standard Provisions contained in CAAP General Order Section VII.A are applicable to this Facility.

**B. Monitoring and Reporting Program Requirements. (CAAP General Order Section VII.B)**

Each Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment C, of the CAAP General Order and as specified in Enclosure D of this NOA.

**C. Special Provisions. (CAAP General Order Section VII.C)**

Special Provisions are contained in Section VII.C of the CAAP General Order. Only the following Special Provision sections from the CAAP General Order specified in Table 3 below apply to this Facility:

**Table 3. Summary of Applicable Special Provisions**

<b>Special Provision</b>	<b>CAAP General Order Section Reference</b>
Reopener Provisions	Section VII.C.1

<b>Special Provision</b>	<b>CAAP General Order Section Reference</b>
Drug and Other Chemical Use Reporting	Section VII.C.2
Best Management Practices and Pollution Prevention	Section VII.C.3
Waste Disposal	Section VII.C.4
Special Provisions for Municipal Facilities (POTWs Only).	Section VII.C.5 - Not Applicable
Other Special Provisions.	Section VII.C.6 - Not Applicable
Compliance Schedules.	Section VII.C.7 – Not Applicable

## **VI. COMPLIANCE DETERMINATION (CAAP GENERAL ORDER SECTION VIII.A)**

### **A. Formaldehyde Effluent Limitations (Section V.A.1)**

Compliance with the effluent limitations for formaldehyde may be evaluated using an estimated effluent concentration in lieu of effluent monitoring data. The estimated effluent concentration shall be calculated as described in Section IX.A of Attachment C, Monitoring and Reporting Program.

## **VII. OTHER REQUIREMENTS**

- A.** The discharge from the Facility (Discharge Point 001) shall not exceed a monthly average flow of 49 million gallons per day (mgd).
- B.** The CAAP General Order expires on **31 January 2025**. Only those CAAP facilities authorized to discharge under the expiring Order and who submit a Notice of Intent at least **one year** prior to the expiration date of the CAAP General Order (unless the Executive Officer grants permission for a later date) will remain authorized to discharge under administratively continued permit conditions.
- C.** Aquaculture activities defined in 40 C.F.R. 122.25(b) will be subject to the annual fee for general NPDES permits and de minimus discharges that are regulated by individual or general NPDES permits (California Code of Regulations Section 2200(b)(9) for Category 3 discharges).
- D.** In accordance with section VII.C.3.a of the CAAP General Order, the Discharger shall certify within 90 days from the issuance of this NOA that a Best Management Practices (BMP) Plan has been developed and is being implemented. To satisfy this requirement the Discharger shall submit a letter to the Central Valley Water Board certifying compliance with the BMP Plan requirements by **8 July 2022**. The Discharger can develop a new BMP Plan, or an existing BMP Plan may be modified for use under this requirement. The Discharger shall develop and implement the BMP Plan to prevent or minimize the generation and discharge of wastes and pollutants to waters of the United States and waters of the State and ensure disposal or land application of wastes is in compliance with applicable solid waste disposal regulations. The BMP Plan shall include practices used during salt treatments at the Facility to minimize salinity discharges to the receiving water. The Discharger shall review the BMP Plan

annually and must amend the BMP Plan whenever there is a change in the Facility or in the operation of the Facility which materially increases the generation of pollutants or their release or potential release to surface waters.

## VIII. ENFORCEMENT

Failure to comply with the CAAP General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation, as well as discretionary penalties. In addition, late monitoring reports are subject to discretionary penalties and MMPs. When discharges do not occur during a quarterly monitoring report period, the Discharger must still submit a quarterly monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

## IX. COMMUNICATION

All notification of non-compliance and questions regarding compliance and enforcement shall be directed to Mohammad Farhad of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Mr. Farhad can be reached at (916) 464-1181 or by email at [Mohammad.Farhad@waterboards.ca.gov](mailto:Mohammad.Farhad@waterboards.ca.gov).

Questions regarding the permitting aspects of this Order, and written notification for termination of coverage under the CAAP General Order, shall be directed to Danielle Goode of the Central Valley Water Board's NPDES Permitting Unit. Ms. Goode can be reached at (916) 464-4843 or by email at [danielle.goode@waterboards.ca.gov](mailto:danielle.goode@waterboards.ca.gov).

The Discharger is required to submit all self-monitoring, technical, and progress reports required by this NOA via CIWQS submittal. In general, if any monitoring data for a monitoring location can be submitted using a computable document format (CDF) file upload, then it should be submitted as a CDF file upload. However, certain parameters that cannot be uploaded to the CIWQS data tables, such as the BMP Plan, should be uploaded as a Portable Document Format (PDF), Microsoft Word, or Microsoft Excel file attachment. Also, please upload or enter a cover letter summarizing the content of the report to the submittal tab of the CIWQS module for each submittal.

All other documents not required to be submitted via CIWQS shall be converted to a searchable PDF and submitted by email to the Central Valley Water Board email [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov) with the following information:

- Attention: NPDES Compliance and Enforcement Section
- Discharger: California Department of Fish and Wildlife and the East Bay Municipal Utility District
- Facility: Mokelumne River Fish Hatchery
- County: San Joaquin County
- CIWQS Place ID: 241195

Documents that are 50 megabytes or larger must be transferred to a DVD or flash drive, and mailed to our office, attention "ECM Mailroom-NPDES".

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this NOA falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. [Links to the laws and regulations applicable to filling petitions](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) ([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)) may be found on the internet or will be provided upon request.

Patrick Pulupa  
Executive Officer

Enclosures:           1) Enclosure A – Administrative Information  
                              2) Enclosure B – Location Map  
                              3) Enclosure C – Flow Schematic  
                              4) Enclosure D – Monitoring and Reporting Program  
                              5) Enclosure E – Approved Agricultural Drug and Chemical Use  
                              6) CAAP General Order R5-2019-0079 (Discharger only)

cc's: Elizabeth Sablad, USEPA, Region IX, San Francisco (via email only)  
Peter Kozelka, USEPA, Region IX, San Francisco (via email only)  
Prasad Gullapalli, USEPA, Region IX, San Francisco (via email only)  
Division of Water Quality, State Water Resources Control Board, Sacramento (via email only)  
Sarah Torres, PG Environmental (via email at [icis-npdes@pgeenv.com](mailto:icis-npdes@pgeenv.com))



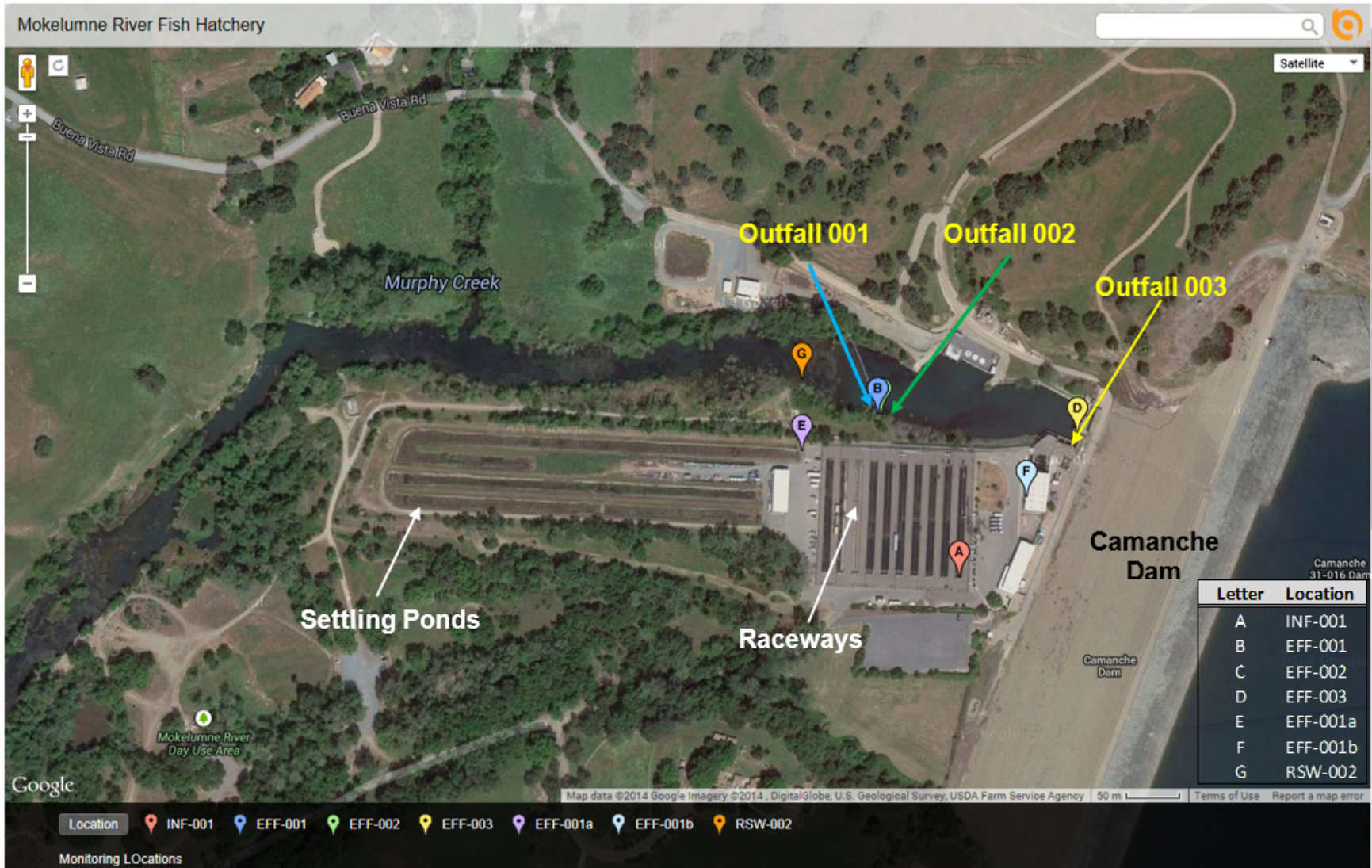
Enclosure A – Administrative Information  
Mokelumne River Fish Hatchery

**ENCLOSURE A - ADMINISTRATIVE INFORMATION**

<b>Waste Discharge ID:</b>	5B390800001
<b>CIWQS Facility Place ID:</b>	241195
<b>General Order NOA Enrollee Number:</b>	R5-2019-0079-007
<b>Discharger:</b>	California Department of Fish and Wildlife and East Bay Municipal Utility District
<b>Name of Facility:</b>	Mokelumne River Fish Hatchery
<b>Facility Address:</b>	258000 N. McIntire Road, Clements, CA 95227
<b>Facility County:</b>	San Joaquin County
<b>Facility Contact, Title and Phone Number:</b>	William Smith (Fish Hatchery Manager II) 209-759-3383
<b>Name of Landowner:</b>	East Bay Municipal Utility District,
<b>Landowner Address:</b>	375 Eleventh Street, Oakland, CA 94607
<b>Landowner Contact and Phone Number:</b>	Jose Setka (209) 263-6363
<b>Authorized Person to Sign and Submit Reports:</b>	Jason Julienne (Supervisor) 916-496-4985
<b>Mailing Address:</b>	P.O. Box 158 Clements, CA 95227
<b>Billing Address:</b>	1 Winemaster Way, Suite 'K' Lodi, CA 95240
<b>Total Weight Produced (Year one through five):</b>	484,000 - 580,000 pounds/year
<b>Type of Facility:</b>	Cold Water Concentrated Aquatic Animal Production Facility, SIC Code 0921
<b>Major or Minor Facility:</b>	Minor
<b>Threat to Water Quality:</b>	2
<b>Complexity:</b>	B
<b>Pretreatment Program:</b>	No
<b>Recycling Requirements:</b>	No
<b>Facility Permitted Flow:</b>	49 million gallons per day (mgd)
<b>Watershed:</b>	Mokelumne River Watershed
<b>Receiving Water:</b>	Mokelumne River
<b>Receiving Water Type:</b>	Inland surface water

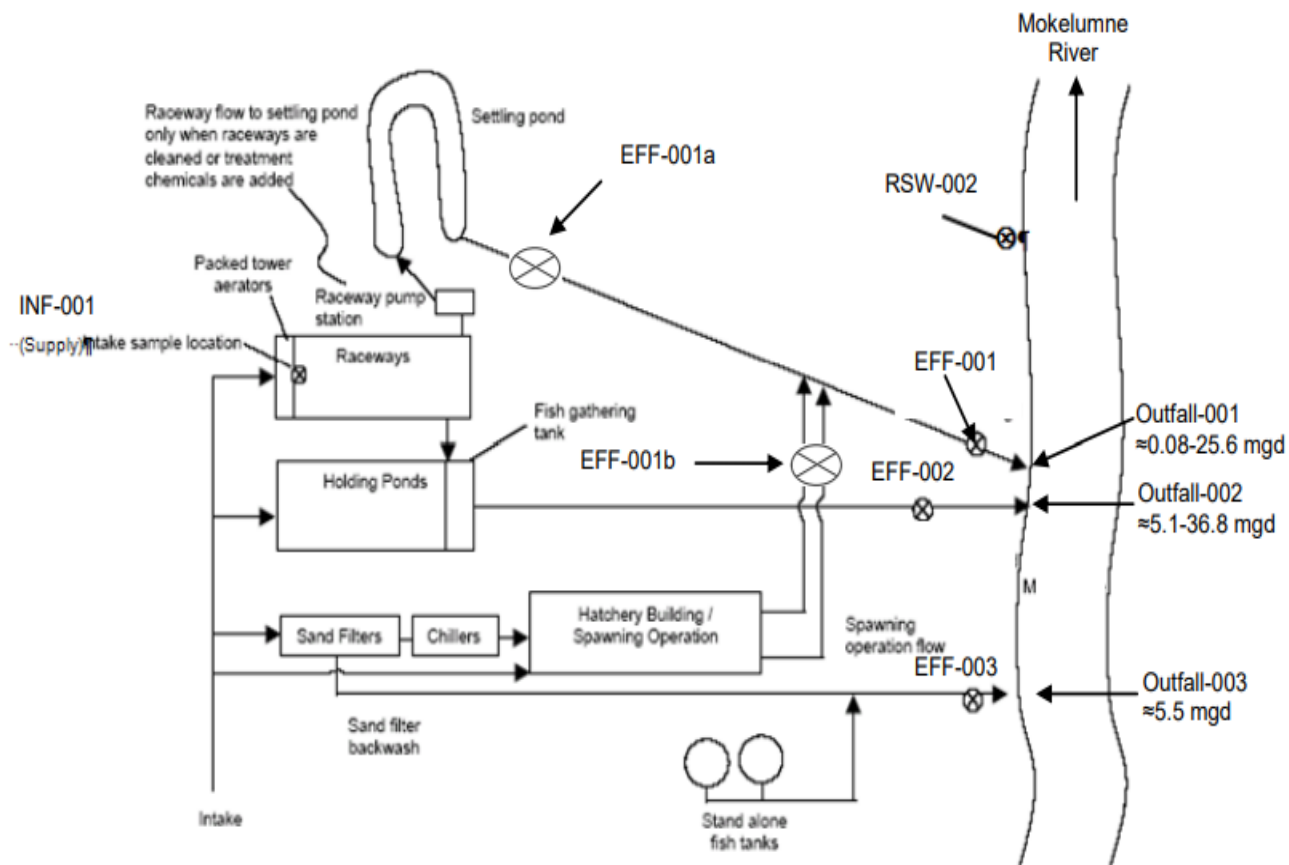
Enclosure B – Location Map  
Mokelumne River Fish Hatchery

**ENCLOSURE B – LOCATION MAP**



**ENCLOSURE C – FLOW SCHEMATIC**

**FACILITY FLOW DIAGRAM**  
California Department of Fish and Game and East Bay Municipal Utilities District  
Mokelumne River Fish Hatchery  
San Joaquin County, California



See Notice of Applicability (NOA) for description of the Sampling Locations

**Outfall Summary**

- 001 - Hatchery buildings (water used for egg hatching, incubation, fish troughs and the spawning operation) and settling pond overflow.
- 002 - Raceway and holding pond/gathering tank flow
- 003 - Sand filter backwash and stand alone fish tank discharge

**ENCLOSURE D – MONITORING AND REPORTING PROGRAM**

The Discharger is required to comply with all the Monitoring and Reporting Requirements contained in Attachment C of the CAAP General Order, as specified in this NOA Enclosure D.

This Facility is in the category of production of greater than 100,000 pounds of aquatic animals produced per year. Tables D-2, D-3, and D-4 below are based on the monitoring in the CAAP General Order, Attachment C for facilities producing greater than 100,000 pounds of aquatic animals produced per year (Attachment C - Sections III. A, IV.A.1, and VIII.C).

**I. GENERAL MONITORING PROVISIONS**

The Discharger shall comply with the General Monitoring Provisions specified in the CAAP General Order, Attachment C, Section I.

**II. MONITORING LOCATIONS**

The monitoring locations are defined as follows in Table D-1 below, and a flow schematic showing the site-specific monitoring locations is provided in Enclosure C to this NOA.

**Table D-1. Monitoring Locations**

<b>Discharge Point Name</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
	INF-001	Mokelumne River Intake. Location where influent sample can be collected prior to entering the Mokelumne River Fish Hatchery.  [Latitude: 38° 13' 29.46" N; Longitude: 121° 01' 29.36" W]
001	EFF-001	Location where representative samples of the Facility's effluent can be obtained prior to discharge to the Mokelumne River at Discharge Point-001  [Latitude: 38° 13' 34" N; Longitude: 121° 01' 32.26" W]
002	EFF-002	Effluent wastewater from the Settling Ponds, Hatchery Building/Spawning Operation, and Storm Water Runoff prior to discharge to the Mokelumne River.  [Latitude: 38° 13' 34" N; Longitude: 121° 01' 32.17" W]
003	EFF-003	Effluent wastewater from Sand Filter Backwash and Stand-Alone Fish Tanks prior to discharge to the Mokelumne River.  [Latitude: 38° 13' 33.46" N; Longitude: 121° 01' 25.12 W]

Enclosure D – Monitoring and Reporting Program  
Mokelumne River Fish Hatchery

	EFF-001a (see Table Notes)	Effluent wastewater from the Settling Ponds prior to mixing with storm water run-off and wastewater from hatchery building/spawning operation.  [Latitude: 38° 13' 33" N; Longitude: 121° 01' 35" W]
	EFF-001b (see Table Notes)	Effluent wastewater from the Hatchery Building/Spawning Operations prior to mixing with storm water run-off and back-up receiving water. Settling Pond discharge is not included in this site.  [Latitude: 38° 13' 31.70" N; Longitude: 121° 01' 27" W]
--	RSW-002	Mokelumne River 100 feet downstream of Outfall 001.  [Latitude: 38° 13' 35" N; Longitude: 121° 01' 35" W]

**Table D-1 notes:**

1. When receiving water elevations cause a backup at monitoring location EFF-001, a representative effluent sample may be collected using flow-weighted samples from EFF-001a and EFF-001b. The self-monitoring report must indicate that receiving water elevations caused backup at EFF-001.

**III. INFLUENT MONITORING REQUIREMENTS (INF-001)**

**A.** The Discharger shall monitor the source water supply to the Facility at Monitoring Location INF-001 as specified in Table D-2 below. Samples shall be collected at approximately the same time as effluent and receiving water samples.

**Table D-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	S.U.	Grab	1/month
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/month
Total Suspended Solids	Mg/L	Grab	1/month

**B. Table D-2 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-2.

Enclosure D – Monitoring and Reporting Program  
Mokelumne River Fish Hatchery

1. Parameters shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
2. Constituents shall be monitored using analytical methods with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).

**C. Influent Monitoring for Facilities with Intake Water Credits.** Not applicable.

**IV. EFFLUENT MONITORING REQUIREMENTS (EFF-001).**

**A.** When discharging at Outfall(s) 001, 002, and/or 003 the Discharger shall monitor the effluent at corresponding Monitoring Locations EFF-001, EFF-002, and EFF-003 as specified in Table D-3 below. Effluent samples shall be representative of the volume and quality of the discharge. Effluent samples shall be collected during or immediately following raceway cleaning or administration of drug or chemical treatments and must be representative of the volume and quality of the discharge at the time when representative levels of solids, drugs, chemicals, or other pollutants are present in the discharge. Time of collection of samples shall be recorded.

**Table D-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	cfs	Meter	1/month
Total Suspended Solids (TSS)	mg/L	Grab	1/month
Net TSS (effluent minus influent)	mg/L	Net Calculation	1/month
Turbidity	NTU	Grab	1/month
pH	S.U.	Grab	1/month
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/month
Formaldehyde	mg/L	Grab	1/month during Formaldehyde use
Chlorine	mg/L	Grab	1/quarter during chlorine use

**B. Table D-3 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-3.

Enclosure D – Monitoring and Reporting Program  
Mokelumne River Fish Hatchery

1. Parameters shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
2. Electrical conductivity samples shall be collected monthly. If sodium chloride is used, the monthly monitoring of electrical conductivity shall be conducted during treatment.
3. Pollutants shall be monitored using analytical methods with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).
4. Estimated concentrations of formaldehyde may be reported in lieu of analytical monitoring during formaldehyde use. If calculations are reported then formaldehyde concentrations should be reported daily to match the concentrations reported in the Monthly Chemical Use Report (Attachment F). See Section IX.A for calculation procedures. If analytical monitoring is conducted, when Formaldehyde is added to the waters of the Facility, formaldehyde concentration shall be measured during time of peak discharge of Formaldehyde, at least one hour after start of treatment.
5. Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.018 mg/L.
6. Per Section IX.A, the discharger shall report all aquaculture drug and chemical use as part of the Monthly Drug and Chemical Use Report that is submitted on a quarterly basis.

**C. Effluent Monitoring for Facilities with Intake Water Credits. Not applicable.**

**V. LAND DISCHARGE MONITORING REQUIREMENTS.**

- A. Septic Tank/Leachfields.** The monitoring requirements contained in CAAP General Order, Attachment C, Section VI.A are applicable to this Facility.
- B. Sewage Lagoons.** Not applicable.

**VI. RECEIVING WATER MONITORING REQUIREMENTS.**

- A. Sampling Locations.** When discharging at Outfall(s) 001, 002, and/or 003, receiving water samples shall be collected from RSW-002 as follows.

**Table D-4. Receiving Water Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L	Grab	1/month
Temperature	Degrees C	Grab	1/month
Turbidity	NTU	Grab	1/month

Enclosure D – Monitoring and Reporting Program  
 Mokelumne River Fish Hatchery

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	S.U.	Grab	1/month
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/month

**Table D-4 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-4.

- Parameters shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

**B. Receiving Water Observations.** In conducting the receiving water sampling, a log shall be kept of the receiving water conditions. Attention shall be given to the presence or absence of:

- Floating or suspended matter
- Discoloration
- Bottom deposits
- Aquatic life
- Visible films, sheens, or coatings
- Fungi, slimes, or objectionable growths
- Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

**VII. OTHER MONITORING REQUIREMENTS.**

**A. Monthly Drug and Chemical Use Report.** The Discharger shall develop a monthly drug and chemical use report in accordance with CAAP General Order, Attachment C, Section IX.A describing all aquaculture drugs or chemicals used at the Facility. The report shall be submitted with the quarterly self-monitoring reports.

**B. Priority Pollutant Metals Monitoring.** In accordance with CAAP General Order, Attachment C, Section IX.B., the Discharger shall monitor the effluent (Monitoring Location EFF-001, EFF-002, and EFF-003) when discharging at Outfalls 001, 002, and 003 and the influent receiving water (Monitoring Location INF-001) for the metals listed in Table G-1 of the CAAP General Order once during the term of the CAAP General Order. **The monitoring shall occur no later than 1 January 2023.** The Discharger shall electronically submit the priority pollutants metals monitoring results using the State Water Board's [California Integrated Water Quality System](http://www.waterboards.ca.gov/water_issues/programs/ciwqs) (CIWQS) Program Web site ([http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs](http://www.waterboards.ca.gov/water_issues/programs/ciwqs)) **within 60 days of the final sampling event.** Refer to CAAP General Order, Attachment G for the specific monitoring requirements. Constituents shall be monitored using analytical methods with sufficiently



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sensitive reporting levels consistent with the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).

**C. Annual Feeding and Production Report.** The Discharger shall develop an annual feeding and production report in accordance with CAAP General Order, Attachment C, Section IX.C. The annual report shall be submitted on 1 February, annually, and included the following information:

1. Monthly food usage in pounds for each calendar month.
2. Annual production of aquatic animals in pounds per year.

**VIII. REPORTING REQUIREMENTS**

**A. General Monitoring and Reporting Requirements.** The Discharger shall comply with the General Monitoring and Reporting Requirements specified in the CAAP General Order, Attachment C, Section X.A.

**B. Self-Monitoring Reports (SMRs).** The Discharger shall comply with the Self-Monitoring Report requirements specified in the CAAP General Order, Attachment C, Section X.B. Monitoring in accordance with the renewed CAAP General Order is required to begin on the effective date of 1 November 2020. SMRs are required to be submitted quarterly and annually. The Discharger shall comply with the reporting requirements specified in CAAP General Order, Attachment C, Section X. The first SMR required under the renewed CAAP General Order is due 1 February 2021 and shall include monitoring conducted from 1 November through 31 December. Table D-5, below, summarizes the SMR due dates required under the CAAP General Order. Quarterly monitoring reports must be submitted until your coverage is formally terminated in accordance with the CAAP General Order, even if there is no discharge during the reporting quarter.

**Table D-5. SMRs required in the MRP (Attachment C, CAAP General Order)**

<b>Sampling Frequency</b>	<b>Monitoring Period Begins On...</b>	<b>Monitoring Period</b>	<b>SMR Due Date</b>
1/month	1 November 2020	First day of calendar month through last day of calendar month	1 May (1 Jan – 31 Mar) 1 Aug (1 Apr – 30 Jun) 1 Nov (1 Jul – 30 Sep) 1 Feb of following year (1 Oct – 31 Dec)
1/quarter	1 November 2020	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 Aug 1 Nov 1 Feb of following year
1/year	1 November 2020	January 1 through December 31	1 Feb of following year

**C. Other Reports**

- 1. Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report by **8 June 2022**. The Analytical Methods Report shall

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include the following for each constituent to be monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the SSM Rule per 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv), and with the Minimum Levels (MLs) in the SIP, Appendix 4. The “Reporting Level or RL” is synonymous with the “Method Minimum Level” described in the SSM Rule. If an RL is not less than or equal to the applicable objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule. Central Valley Water Board staff will provide a tool with the NOA to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.

**2. Analytical Methods Report Certification.** Prior to beginning the Priority Pollutant Metals Monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Priority Pollutant Metals Monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report. If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by Central Valley Water Board staff with the NOA that the Discharger can use to satisfy this requirement. Central Valley Water Board staff will provide a tool with the NOA to assist the Discharger in completing this requirement. The tool will include the Analytical Methods Report Certification form, which will acknowledge the scheduled start date of the Effluent and Receiving Water Characterization monitoring and certifies that samples will be taken and analyzed as described in the previously submitted and approved Analytical Methods Report. If there are changes to the approved Analytical Methods Report, the Discharger shall outline those requested changes in the form and not commence characterization monitoring until the requested changes have been reviewed and approved by Central Valley Water Board staff.

Enclosure E – Approved Aquaculture Drugs and Chemicals Use  
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**ENCLOSURE E – APPROVED AQUACULTURE DRUGS AND CHEMICALS USE**

The following drugs and chemicals are used at the Facility to treat fish for parasites, fungi, and bacteria, as well as to clean rearing raceways to reduce the spread of disease among the confined fish population.

**Table E-1. Approved Aquaculture Drugs and Chemicals Use**

<b>Drug or Chemical</b>	<b>Maximum Daily Amount Used</b>	<b>Method of Application</b>	<b>Maximum Amount in Effluent</b>
Acetic Acid	335-500 ppm 500-2,000 ppm	Flush Bath	Not in use currently
Amoxicillin Trihydrate	40 mg/kg of fish	Injected intraperitoneally	None/ND
AQUI-S®E AQUI-S®20E	10-100 mg/L	Bath	Not in use currently
Carbon Dioxide		Bath	Not in use currently
Chloramine T (Halamid® Aqua)	10-20 ppm for 1 hr	Flush Bath	0.55-1.1 ppm
Chorulon®– Chronic Gonadotrop	50-1816 IU/lb	Intramuscular injection	None/ND
Epsom Salt		Feed	Not in use currently
Erythromycin	40 mg/kg of adult fish	Injected intraperitoneally Feed	Not in use currently
Enteric Redmouth (ERM) Vaccine	22 L/4,400 lbs of fish	Dip	Not in use currently
Florfenicol (Aquaflor®)		Medicated feed	Negligible
Formalin (37% formaldehyde solution)	25 ppm	Bath  Eggs	1.3mg/L
Hydrogen Peroxide (35%)	52 gal	Flush Bath	100 ppm
Ivermectin		Injected intramuscularly	None/ND

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<b>Drug or Chemical</b>	<b>Maximum Daily Amount Used</b>	<b>Method of Application</b>	<b>Maximum Amount in Effluent</b>
MS-222/tricaine methanesulfonate (Finquel®, Tricaine-S®)	150 g	Bath	None/ND
Ovaplant® Salmon Gonadotropin-releasing hormone analogue (sGnRH <sub>a</sub> )		Dorsal injection pellet implant	None/ND
Oxytetracycline dihydrate (Terramycin®)	3.75g/100 lbs of fish/day for 10 days	Additive to feed	Negligible/ND
Oxytetracycline HCL	100 mg/8 tanks	Bath	100mg/L
Penicillin G Potassium	60 mg/8 tanks	Bath	100mg/L
Potassium Permanganate (Cairox™)	2 mg/L	Flush Bath	2 mg/L
PVP Iodine	9600 ml	Bath	100 mg/L
Sodium Bicarbonate	Variable	Bath	N/A
Sodium Chloride (salt)	3600 lbs	Bath Flush	1500 mg/L
SLICE® (emamectin benzoate; 0.2% aquaculture premix)	3.75/100 lbs of fish	Medicated feed	Negligible/ND
Sulfadimethoxine-orometoprim (Romet-30®)	50 mg/kg of fish/day	Additive to feed	Negligible/ND
Vibrio vaccine	48 liters	Dip	N/A