
Central Valley Regional Water Quality Control Board

19 May 2022

Mark Clifford
California Department of Fish and Wildlife
3 North Old Stage Rd
Mt. Shasta, CA 96067

CERTIFIED MAIL:
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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, MOUNT SHASTA FISH HATCHERY, SISKIYOU 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 (Discharger) on 20 June 2016 for coverage under the CAAP General Order for the Mount Shasta 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 18 June 2019 to continue coverage for the Facility under the CAAP General Order. Effective **1 June 2022** this NOA provides continued coverage for the Facility under the CAAP General Order to discharge to the Big Springs Creek, superseding the previous NOA issued 20 June 2016. CAAP General Order R5-2019-0079 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001 are assigned for this Facility. Please reference your CAAP General Order number **R5-2019-0079-008** 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 Aquaculture Drugs and Chemicals Use

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) 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 at 3N Old Stage Road in Mount Shasta, in Section 17, T40W, R4W, MDPM, as shown in Enclosure B of this NOA. The Facility is owned and operated by the California Department of Fish and Wildlife. The Facility is a flow through system that annually produces approximately 145,000 pounds of rainbow trout; 10,000 pounds of brown trout; 40,000 pounds of eagle lake trout; and 40,000 pounds of red band.

In the Notice of Intent, the Discharger reported the predicted 5-year maximum annual harvestable fish production (Table 1) and the maximum monthly feed use of 11,500 pounds for the Facility.

Table 1. 5-Year Maximum Aquatic Animal Production

Species	5-Year Maximum Annual Harvestable Maximum Hatchery Aquatic Animal Production (lbs)
Rainbow Trout	145,000
Brown Trout	10,000
Eagle Lake Trout	40,000
Red Band	40,000

Freshwater is diverted from Big Springs Creek at a maximum flow rate of about 20 cubic feet per second (cfs) or about 13 million gallons per day (mgd). The Discharger controls diversion flows using a wooden plank and concrete barrier in Big Springs Creek, approximately 0.5 miles upstream of the Facility. Freshwater flows by gravity to an intake-settling pond for initial solids treatment; the pond has two overflow points, allowing surplus freshwater to enter a drainage ditch connected to settling Pond 38. A water wheel is utilized to convert the energy of flowing water into mechanical energy, which powers a control arm used to clean a perforated metal mesh screen; the screen is used to filter larger solids that pass through the northernmost settling pond. When the solids volume in the northernmost settling pond reaches capacity, a bypass channel is utilized for pond maintenance.

The water then flows through each settling pond and can be diverted to bypass the settling ponds to allow for cleaning. The ponds are cleaned twice a year by raking out each pond with a dragline. The removed solids are left on the bank to dry out and then relocated for composting. The composting site is about 800 feet from the Facility. In addition, fish carcasses are removed daily from the raceways and the hatchery, which are typically composted as well. The Discharger states that in the event of a significant problem resulting in a large number of mortalities, a local rendering company is called to haul the mortalities away.

Freshwater is routed to the Nursery Ponds, Hatchery Building E, Hatchery Building B, and to a Museum after initial solids treatment. To improve influent water quality, the Discharger has added two new treatment components after the initial settling pond, including: (1) a drum filter

(to remove fine suspended particulates) and (2) ultraviolet sterilizers (to eradicate pathogens). Water from the Nursery Ponds is routed to fish raceways, and/or Pond 38. Hatchery wastewater from Building E is discharged into Pond 38 before entering an unnamed tributary to Wagon Creek. In May/June 2016, a structure was constructed at the outfall location of Pond 38 for the purposes of preventing fish passage and measuring flowrates.

Hatchery wastewater from the raceways is split between two parallel-operated settling ponds before discharge into an unnamed tributary to Cold Creek. An outlet pipe was placed in the westernmost settling pond for the purposes of diverting water through Pond X and into Pond 38. As part of a land sale agreement, a second outlet pipe is situated at the southern end of the westernmost settling pond to provide a private landowner with irrigation water. The unnamed tributary to Cold Creek runs through private property before entering Cold Creek; treated hatchery wastewater can be used for irrigation purposes before entering Cold Creek.

Hatchery wastewater is discharged from the Facility to Big Springs Creek, an unnamed tributary to Wagon Creek, and an unnamed tributary to Cold Creek through three outfalls (Outfall 001, Outfall 002, and Outfall 003) as shown in Enclosure C, a part of this NOA, and as described below:

Outfall 001 – Treated flow-through hatchery wastewater from the spawning buildings, the earthen raceways, and the concrete Nursery Ponds, enters one of two parallel-operated final settling ponds (located in the southeastern section of the Facility) prior to discharge to an unnamed tributary to Cold Creek (Discharge Point 001). Hatchery wastewater at this outfall flows through private property and can be utilized for agricultural purposes before entering Cold Creek, approximately ¼ mile downstream of the outfall. Hatchery wastewater from the southeastern settling ponds can also be routed to Pond 38. The average flow from this outfall is 10.67 mgd. Latitude: 40° 18' 22.82" N; and Longitude: 121° 19' 44.70" W

Outfall 002 – Includes flow-through hatchery wastewater from Hatchery Building E, freshwater overflow, hatchery wastewater from the Nursery Ponds, and hatchery wastewater from Pond X. Hatchery wastewater flows through Pond 38 prior to discharge to an unnamed tributary to Wagon Creek (Discharge Point 002). Treated hatchery wastewater at this outfall flows through private property and can be utilized for agricultural purposes before entering Wagon Creek. The approximate flow from this outfall is 0.97 mgd. Latitude: 40° 18' 20.04" N; and Longitude: 121° 19' 54.01" W

Outfall 003 – Hatchery wastewater from the Nursery Ponds and freshwater overflow enters Big Springs Creek through this outfall (Discharge Point 003). The estimated flow from this outfall is unknown, Discharge monitoring at this point is often difficult and unsafe terrain. Reporting constituents are reported in EFF-002 data, adding the DO and turbidity results. Latitude: 41° 18' 29.06" N; and Longitude: 121° 19' 51.18" W

Domestic sewage from the hatchery buildings and private residences is discharged to septic tank/leachfield systems. Hatchery Building B and the shop have separate septic tanks with a common leachfield. The museum and an adjacent residence share a common septic tank/leachfield. The private residence adjacent to Pond X has a separate septic

tank/leachfield. The remaining five residences and meat house have three septic tanks with service to a common leachfield.

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 (CAAP GENERAL ORDER SECTION V)

A. Effluent Limitations (CAAP General Order Section V)

Effluent Limitations are specified in Section V of the CAAP General Order. The following effluent limitations are applicable to this discharge and are contained in Section V.A of the CAAP General Order:

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

Table 2. Effluent Limitations

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

Table 2 Notes:

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).

2. 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)

Discharge to Big Springs Creek, an unnamed tributary to Wagon Creek, and an unnamed tributary to Cold Creek, is within the Sacramento and San Joaquin River Basins, therefore, receiving water limits contained in the CAAP General Order for the Sacramento and San Joaquin River Basins are applicable to the 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.b., the dissolved oxygen concentration in the Big Springs Creek 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); and
- 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

Special Provision	CAAP General Order Section Reference
Reopener Provisions	Section VII.C.1
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 13 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 **17 August 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 monitoring report submittals, notification of the beginning and end of discharge, questions regarding compliance and enforcement, and questions regarding permitting aspects shall be directed to Stacey Alexander of the Central Valley Water Board's NPDES Unit. Stacey Alexander can be reached at (530) 224-3219 or by email at Stacey.Alexander@waterboards.ca.gov.

The Central Valley Water Board is implementing a Paperless Office system to reduce our paper use, increase efficiency, and provide a more effective way for our staff, the public, and interested parties to view documents in electronic form. Therefore, 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 centralvalleyredding@waterboards.ca.gov with the following information:

- Attention: NPDES Unit
- Discharger: California Department of Fish and Wildlife
- Facility: Mt. Shasta Hatchery
- County: Siskiyou County
- CIWQS Place ID: 241795

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) may be found on the internet or will be provided upon request.

Original Signed By Clint E. Snyder

(for) Patrick Pulupa
Executive Officer

SA: cc

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

cc via email

w/o encl: Elizabeth Sablad, U.S.EPA, Region IX, San Francisco
Peter Kozelka U.S.EPA, Region IX, San Francisco
Prasad Gullapalli, U.S. EPA Region IX, San Francisco
Division of Water Quality, State Water Board, Sacramento

cc via email

w/ encl: Terry Jackson, California Department of Fish and Wildlife, Rancho Cordova
Brian Rushton, California Department of Fish and Wildlife, Mount Shasta
Cody Leonard, California Department of Fish and Wildlife, Mount Shasta

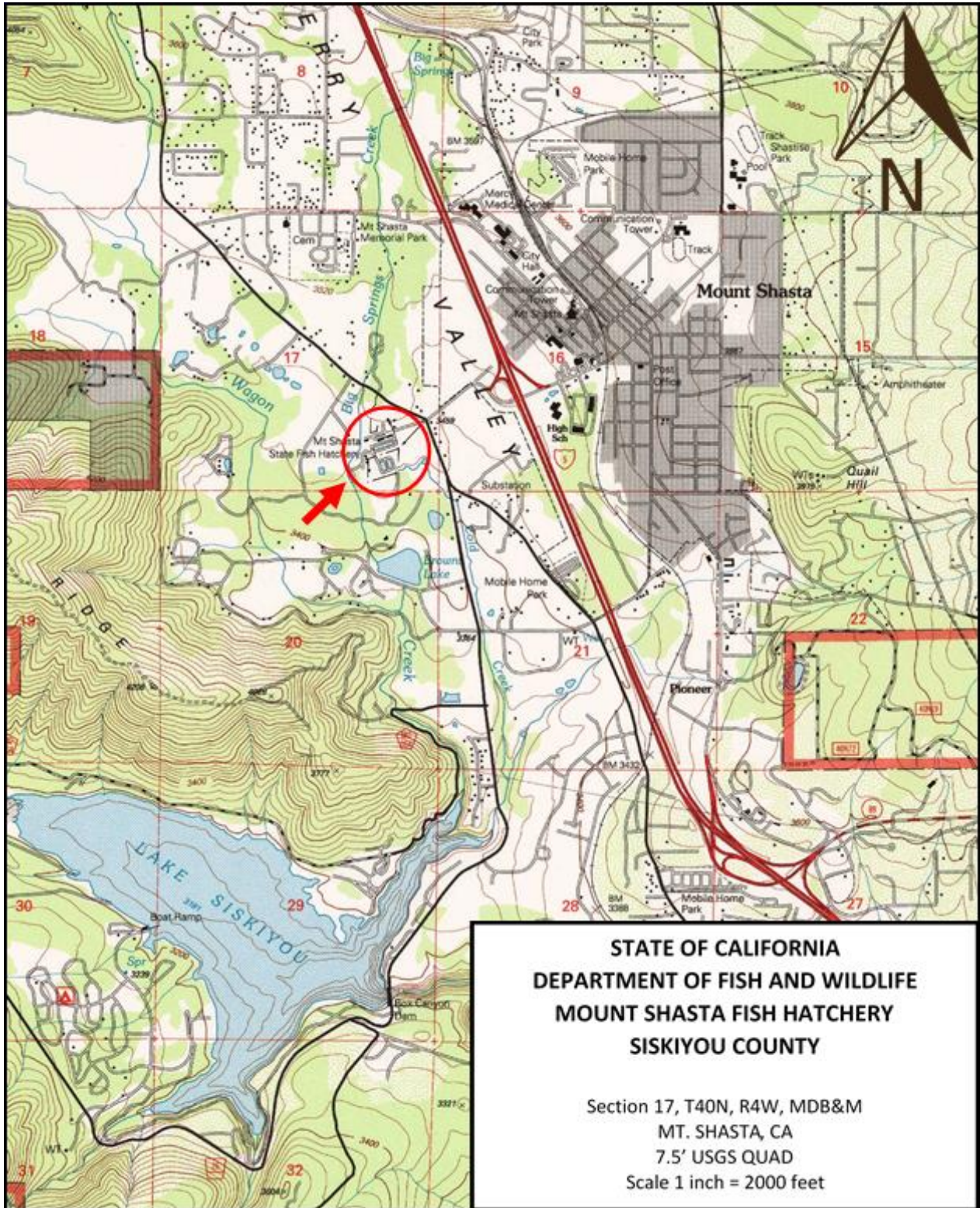
cc: Dan Wessel, Siskiyou County Division of Environmental Health, Yreka
Jason Ledbetter, Siskiyou County Flood Control and Water Conservation
District, Yreka

ENCLOSURE A - ADMINISTRATIVE INFORMATION

Waste Discharge ID:	5A470803001
CIWQS Facility Place ID:	241795
General Order NOA Enrollee Number:	R5-2019-0079-008
Discharger:	California Department of Fish and Wildlife (CDFW)
Name of Facility:	Mount Shasta Hatchery
Facility Address:	3 North Old Stage Road
Facility City, State Zip:	Mount Shasta, CA 96067
Facility County:	Siskiyou County
Facility Contact, Title and Phone Number:	Brian Rushton, Fish Hatchery Manager (530) 926-2215
Landowner:	CDFW
Landowner Address:	601 Locust Street
Landowner City, State Zip:	Redding, CA 96001
Landowner Contact and Phone Number:	Mark Clifford (530) 227-4672
Authorized Person to Sign and Submit Reports:	Brian Rushton, Fish Hatchery Manager (530) 926-2215 Eric Jones, Senior Environmental Scientist Supervisor (530) 510-3898
Mailing Address:	CDFW – Region 1 601 Locust Street Redding, CA 96001
Billing Address:	Same
Total Weight Produced (Year one through five):	173,000 pounds/year
Type of Facility:	CAAP Facility, SIC Code 0921
Major or Minor Facility:	Minor
Threat to Water Quality:	2
Complexity:	B
Pretreatment Program:	No
Recycling Requirements:	No
Facility Permitted Flow:	13 million gallons per day (mgd)
Watershed:	Sacramento River Basin
Receiving Water:	Big Springs Creek, an unnamed tributary to Wagon Creek, and an unnamed tributary to Cold Creek
Receiving Water Type:	Inland surface water

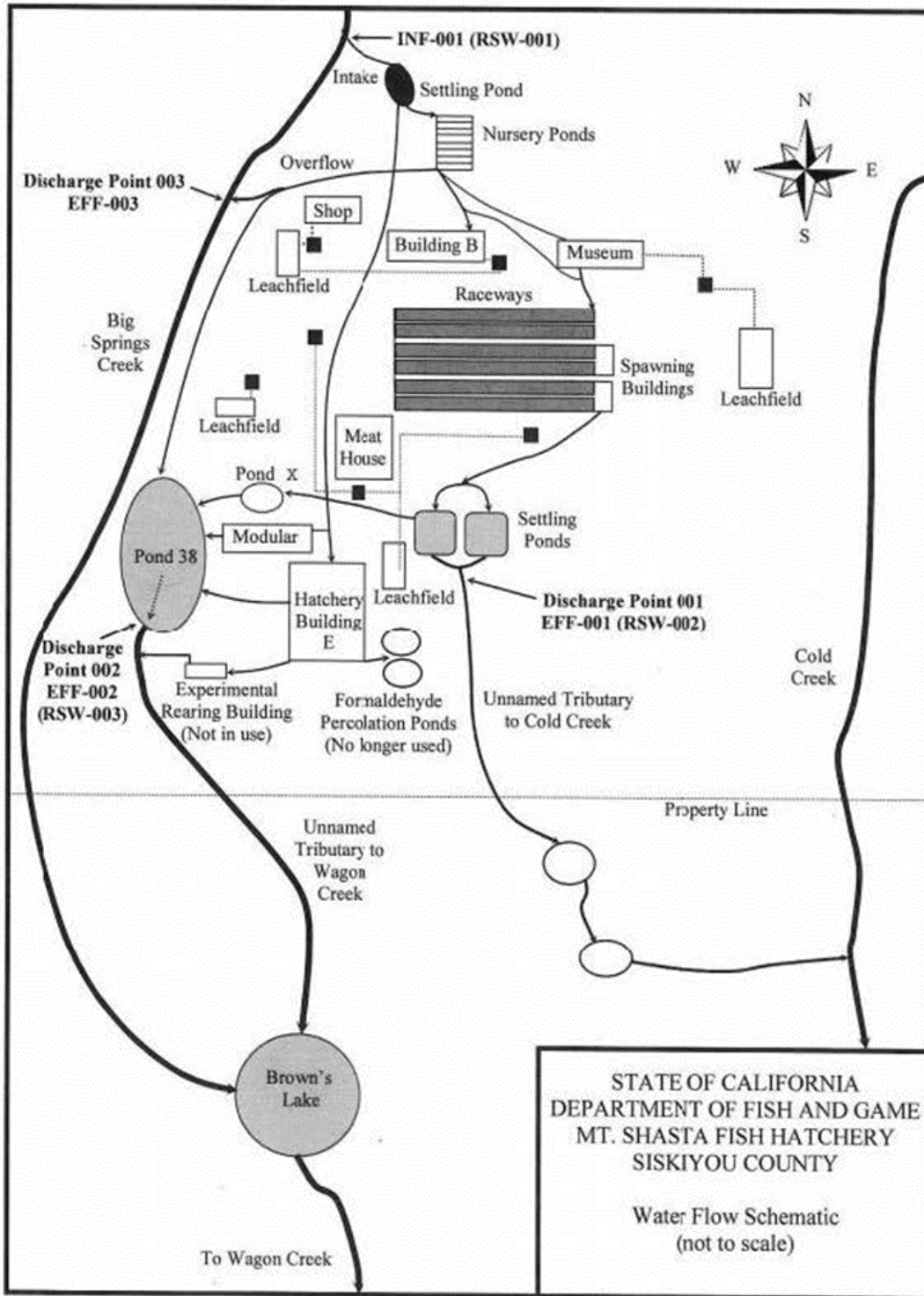
Enclosure B – Location Map
Mount Shasta Fish Hatchery

ENCLOSURE B – LOCATION MAP



Enclosure C – Flow Schematic
Mount Shasta Fish Hatchery

ENCLOSURE C – FLOW SCHEMATIC



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 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

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Influent shall be sampled at a location where a representative sample can be obtained, prior to freshwater entering the Facility [Approximate location: 41°18'34.37" N latitude and 122°19'47.99" W longitude].
001	EFF-001	Treated hatchery wastewater from the southeastern settling ponds shall be sampled after the last point at which wastes are introduced and prior to treated hatchery wastewater entering an unnamed tributary to Cold Creek [Approximate location: 41°18'23.06" N latitude and 122°19'43.91" W longitude].
002	EFF-002	Treated hatchery wastewater from Pond 38 shall be sampled after the last point at which wastes are introduced and prior to treated hatchery wastewater entering an unnamed tributary to Wagon Creek [Approximate location: 41°18'20.14" N latitude and 122°19'53.44" W longitude].
003	EFF-003	Treated hatchery wastewater from the Nursery Ponds is comingled with unused freshwater. Treated hatchery wastewater shall be sampled after the last point at which wastes are introduced and prior to hatchery wastewater entering Big Springs Creek. Monitoring at this location is only necessary when discharge from the Nursery Ponds enters this outfall [Approximate location: 41°18'29.19" N latitude and 122°19'51.71" W longitude].

Enclosure D – Monitoring and Reporting Program
 Mount Shasta Fish Hatchery

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	RSW-001	Monitoring at RSW-001, Big Springs Creek, can be completed at monitoring location INF-001. Constituents monitored at INF-001, which are equivalent to parameters monitored at RSW-001, can be used for both INF-001 and RSW-001 monitoring requirements [Approximate location: 41°18'34.37" N latitude and 122°19'47.99" W longitude].
--	RSW-002	Monitoring at RSW-002, an unnamed tributary to Cold Creek, can be completed at monitoring location EFF-001. Constituents monitored at EFF-001, which are equivalent to parameters monitored at RSW-002, can be used for both EFF-001 and RSW-002 monitoring requirements [Approximate location: 41°18'23.06" N latitude and 122°19'43.91" W longitude].
--	RSW-003	Monitoring at RSW-003, an unnamed tributary to Wagon Creek, can be completed at monitoring location EFF-002. Constituents monitored at EFF-002, which are equivalent to parameters monitored at RSW-003, can be used for both EFF-002 and RSW-003 monitoring requirements [Approximate location: 41°18'20.14" N latitude and 122°19'53.44" W longitude].

III. INFLUENT MONITORING REQUIREMENTS (INF-001)

- A. When there is a discharge at Outfall(s) 001, 002, and/or 003, the Discharger shall monitor influent to the Facility at monitoring location INF-001 for the frequencies/parameters shown in Table D-2. Samples shall be collected at approximately the same time as effluent samples. Any parameters equivalent to those monitored at RSW-001 can be used to meet monitoring requirements in Table D-2.

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

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
 Mount Shasta 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).

B. Influent Monitoring for Facilities with Intake Water Credits. Not applicable.

IV. EFFLUENT MONITORING REQUIREMENTS

- A.** The Discharger shall monitor the effluent at Monitoring Location 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. Samples taken at monitoring location RSW-002, equivalent to those monitored at EFF-001, can be used to meet monitoring requirements in Table D-3. Samples taken at monitoring location RSW-003, equivalent to those monitored at EFF-002, can be used to meet monitoring requirements in Table D-3. 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	Calculate	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

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

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.

Enclosure D – Monitoring and Reporting Program
Mount Shasta Fish Hatchery

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. pH and formaldehyde 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.

B. 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. Receiving water samples shall be collected from Monitoring Locations RSW-001, RSW-002, and RSW-003 as specified below.

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:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits

Enclosure D – Monitoring and Reporting Program
 Mount Shasta Fish Hatchery

- d. Aquatic life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

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

C. Receiving Water Monitoring. The Discharger shall monitor the receiving water at Monitoring Locations RSW-001, RSW-002, and RSW-003 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
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.

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.

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) and the upstream receiving water (Monitoring Location RSW-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 beginning on or after 1 January 2021, but 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) **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 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 June 2022. 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 August 2022 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)

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/month	1 June 2022	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 June 2022	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

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/year	1 June 2022	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 **18 July 2022**. The Analytical Methods Report shall 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

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

Drug or Chemical	Maximum Daily Amount Used	Method of Application	Maximum Amount in Effluent
Acetic Acid	500-1,000 ppm	Dip in container	Not discharged
Amoxicillin Trihydrate	40 mg/kg of fish	Injected	Negligible
Carbon Dioxide Gas	variable	Injected into tank	Unknown
Chorulon® - Chronic Gonadotropin	50-1816 IU/lb	intramuscular injection	None/ND
Chloramine T	20 ppm/1 hr/raceway	Drip	1.3 ppm
Epsom Salt (Magnesium Sulfate)	30gms per kg for 3 days	Feed	None/ND
Erythromycin	40 mg/kg of fish	Injected	Negligible
Enteric Redmouth (ERM) Vaccine	Variable	Dip	None/ND
Florfenicol	15 mg/kg of feed	In feed	Negligible
Formalin (37% formaldehyde solution)	2,000 ppm	Bath	1.23 ppm
Hydrogen Peroxide	100 ppm/1 hr/raceway	Drip	6.44 ppm with no raceway breakdown of chemical
Oxytetracycline HCL	100 ppm	Bath in tanks	0.22 ppm
Penicillin G	150 IU/mL	6 hr bath in tanks	0.33 IU/mL
Potassium Permanganate	2 ppm/1 hr/raceway	Drip	0.13 ppm
PVP Iodine	100 mg/L for 10 to 30 minutes.	Bath	None/ND
Romet-30	50 mg/kg of feed	In feed	Negligible
Sodium Bicarbonate	Variable (142-642 mg/L for 5 mins)	Bath in tank	Unknown
Sodium Chloride	3% (19 lbs/66-gal tank)	Bath in tank	Unknown
SLICE (emamectin benzoate)	In feed	In feed	Negligible

Enclosure E – Approved Aquaculture Drugs and Chemicals Use
Mount Shasta Fish Hatchery

Tricaine Methanesulfonate (MS- 222)	40 ppm in container	In container	Not discharged
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