Central Valley Regional Water Quality Control Board

29 November 2023

Eric Jones
Senior Environmental Scientist, Supervisor
California Department of Fish and Wildlife
601 Locust St
Redding, CA 96001

CERTIFIED MAIL
7019 0700 0002 1109 3488

Tim Baker
Fish Hatchery Manager II
California Department of Fish and Wildlife
29661 Wildcat Road
Paynes Creek, CA 96075

CERTIFIED MAIL
7019 0700 0002 1109 3495

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, DARRAH SPRINGS FISH HATCHERY, SHASTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) issued a Notice of Applicability (NOA) to California Department of Fish and Wildlife (Discharger) on 2 September 2015 for coverage under the CAAP General Order for the Darrah Springs 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 6 June 2019 to continue coverage for the Facility under the CAAP General Order. Effective **1 January 2024**, this NOA provides continued coverage for the Facility under the CAAP General Order to discharge to the Darrah Springs Creek, superseding the previous NOA issued 2 September 2015. CAAP General Order R5-2019-0079-019 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001 are assigned for this Facility. Please reference your CAAP General Order number **R5-2019-0079-019** 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) 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 at 29661 Wildcat Road in Paynes Creek, in Shasta County Section 29, T30N, R1W, MDB&M, 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 240,000 pounds of Rainbow trout and 80,000 pounds of Eagle Lake trout.

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 45,000 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	240,000
Eagle Lake trout	80,000

Rainbow trout and Eagle Lake trout are raised at the Facility. Hatchery structures are distributed throughout the 82.59 acre land parcel and consist of: a hatchery building, two separate raceway series (Upper Raceway Series and Lower Raceway Series) consisting of ten raceways with each raceway divided into six 100-foot ponds, 14 nursery tanks, a spring fed broodstock raceway divided into three separate ponds, a main office building, a vehicle maintenance shop, a freezer building (used for storage), and six feed storage silos. The Facility is supplied with resurgence water from Darrah Springs, an unnamed spring near the brood pond, and PG&E's Pacific Power Ditch. The Facility has a maximum design flow rate of 41.3 cubic feet per second (cfs) or 26.7 million gallons per day (mgd) of continuous flow-through water. Hatchery wastewater is discharged from the Facility to Darrah

Springs Creek (Discharge Points 002 and 003) and PG&E's Pacific Power Ditch (Discharge Point 004), as shown in Enclosure C, a part of this NOA.

Hatchery wastewater is discharged from the Facility to PG&E's Pacific Power Ditch and/or Darrah Springs Creek through four outfalls (Outfall 001, Outfall 002, Outfall 003, and Outfall 004) as shown in Enclosure C, a part of this NOA, and as described below:

Outfall 001 – The hatchery building is fed by a diversion from Darrah Springs Creek. Currently all flow-through wastewater is discharged through the Nursery Tanks and then to the Lower Raceway Series. Discharge Point 001 is no longer used but its designation is retained in the event future use occurs. Latitude: 40° 25’ 57.71” N; and Longitude: 121° 59’ 46.61” W

Outfall 002 – Several unnamed springs supply water to three concrete-lined Brood Ponds. Flow through water from the Brood Ponds is discharged to Darrah Creek at Discharge Point 002. However, under normal operations, approximately 80% of the discharge from the brood Ponds is pumped, aerated, and re-circulated through the Lower Raceway Series. The approximate flow from this outfall is 4.8 mgd. Latitude: 40° 25’ 52.66” N; and Longitude: 121° 59’ 53.58” W

Outfall 003 – The Lower Raceway Series is supplied by several water sources, including surface water diversion from Darrah Creek, flow through wastewater from the hatchery building/nursery tanks, and re-circulated water from the Lower Raceway Series is discharged directly back into Darrah Creek (Discharge Point 003). Estimated flow from this outfall has historically been reported at between 7.1 mgd and 14.9 mgd. The Lower Raceway Series does not have a settling basin, therefore, all flow through wastewater is discharged directly back into Darrah Creek. Darrah Creek flows into Ward’s Pond, located approximately 1300 feet downstream of the Lower Raceway Series. Water from Ward’s Pond enters Baldwin Creek, a tributary to Battle Creek. Latitude: 40° 25’ 51.99” N; and Longitude: 121° 59’ 55.57” W

Outfall 004 – The Upper Raceway Series is supplied by a surface water diversion from the Pacific Power Ditch. An average of 7.1 mgd of flow through wastewater from the Upper Raceway Series is discharged back into the Pacific Power Ditch at Discharge Point 004. There is no settling basin associated with the Upper Raceway Series, and all flow through wastewater is discharged directly back into the Pacific Power Ditch. Latitude: 40° 25’ 43.02” N; and Longitude: 121° 59’ 54.71” W

Domestic wastewater – Employees and their family members currently occupy residences located at the Facility. Potable water is supplied from a domestic well located on-site. Domestic wastewater is discharged into three separate septic tank/leachfields from the following sources: (1) easterly residential buildings (Leachfield #1), (2) residential buildings near the Upper Raceway Series (Leachfield #2), and (3) the office/hatchery buildings (Leachfield #3). Sewage going to

Leachfield #3 is diverted to an approximate 0.15 acre sewage lagoon when wet weather events elevate the groundwater table. Leachfield #3 has been raised from its original design to reduce use of the sewage lagoon. For safety, the sewage lagoon is encircled with a barbed wire fence. A groundwater observation and pumping well are positioned adjacent to the sewage lagoon. The pumping well is float switch operated and activates when the groundwater elevation reaches a threshold differential elevation between the leachfield and the water table.

The Facility has a 1,000-gallon Convault tank for storage of gasoline. Vehicle maintenance is performed in a garage. Used oil, oil filters and extra oil are hauled off-site on a routine basis by a licensed hazardous waste hauler.

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 Sections V.A of the CAAP General Order:

1. The Discharges to surface waters shall not exceed the final 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

2. The Discharger shall minimize the discharge of Total Suspended Solids through the implementation of the Best Management Practices and Pollution Prevention Plan established in Special Provision VII.C.3 of the CAAP General Order.

B. Effluent Limitations – Applicable to Discharges to Specific Water Bodies (CAAP General Order Section V.B)

1. Final Copper Effluent Limitations – Not Applicable

Copper sulfate is not utilized at the Facility and there is no reasonable potential for total recoverable copper. Therefore, an effluent limitation for total recoverable copper is not imposed on the Discharger.

C. 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 from the Facility to Darrah Springs Creek (tributary of Battle Creek) and PG&E's Pacific Power Ditch (tributary of Battle Creek) is within the Sacramento and San Joaquin River Basins, therefore, the receiving water limitations contained in the CAAP General Order for the Sacramento and San Joaquin River Basins 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.i, ii and VI.A.6.b) – Per CAAP General Order Section VI.A.6.a.iii., the dissolved oxygen concentration in the Darrah 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);
- 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);
- Total Dissolved Solids (VI.A.18) – Not Applicable;
- 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 CAAP General Order Section IX.A of Attachment C, Monitoring and Reporting Program.

VII. OTHER REQUIREMENTS

A. The discharge from the Facility (Discharge Point 001, 002, 003, and 004) shall not exceed a monthly average flow of 26.7 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.

The Executive Officer grants an extension to the deadline prescribed in the CAAP General Order (above); if a complete Notice of Intent is submitted **180 days** prior to the expiration date of the CAAP General Order the Facility shall remain authorized to discharge under the 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 3discharges).

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 **27 February 2024**. 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 Erin Jonasson of the Central Valley Water Board's NPDES Unit. Erin Jonasson can be reached at (530) 224-6128 or by email at Erin.Jonasson@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 using the State Water Resources Control Board’s California Integrated Water Quality System program website (http://www.waterboards.ca.gov/ciwqs/index.html). 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 (centralvalleyfresno@waterboards.ca.gov) with the following information:

- Attention: NPDES Compliance and Enforcement Section
- Discharger: California Department of Fish and Wildlife
- Facility: Darrah Springs Hatchery
- County: Shasta County
- CIWQS Place ID: 219123

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.

Bryan J. Smith, P.E.
Digitally signed by Bryan J. Smith, P.E.
Date: 2023.11.28 10:07:03 -08'00'

for Patrick Pulupa
Executive Officer

EJ: vt

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)

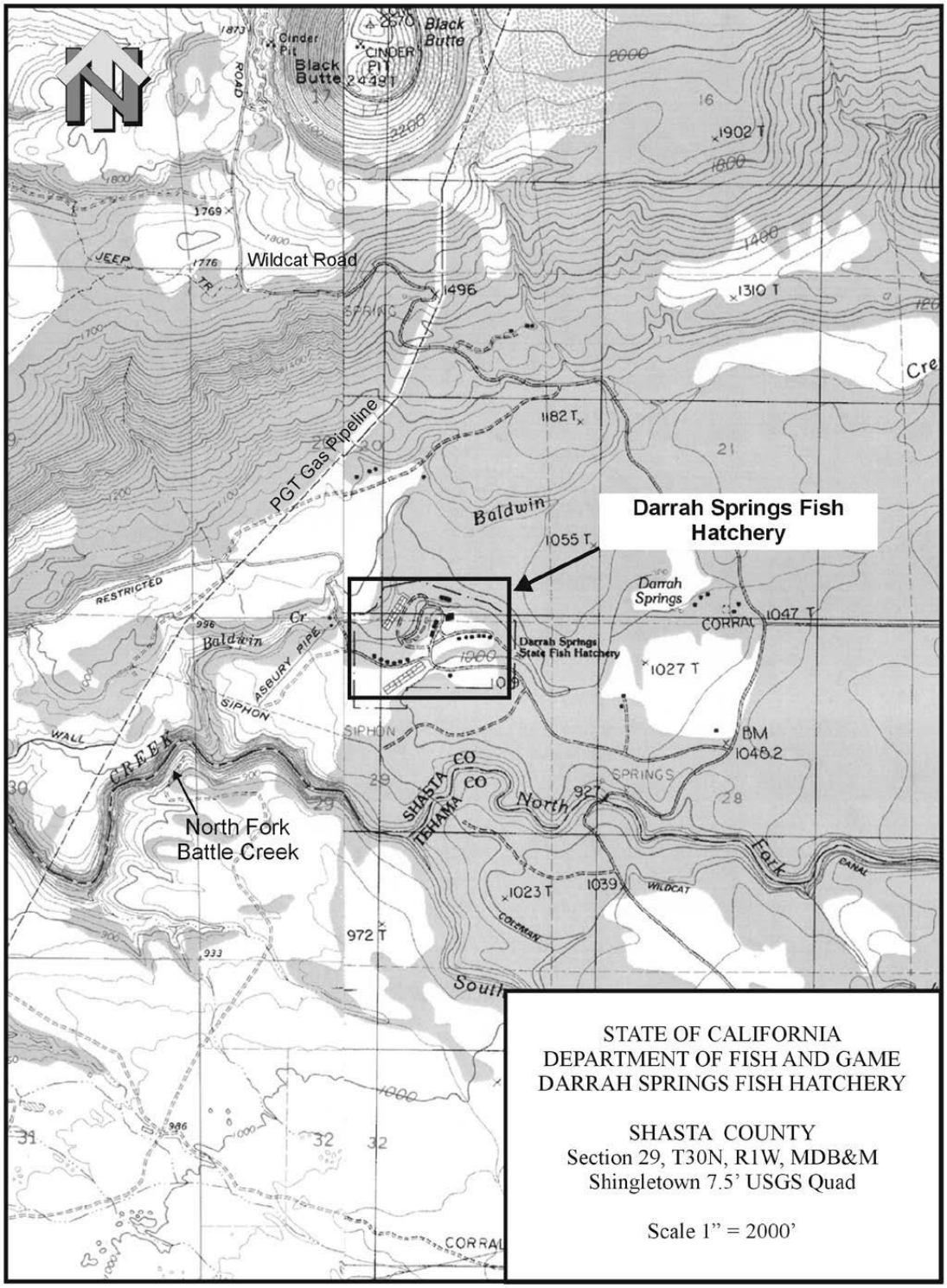
cc electronically:

Elizabeth Sablad, U.S.EPA, Region IX, San Francisco
Prasad Gullapalli, U.S. EPA Region IX, San Francisco
Division of Water Quality, State Water Board, Sacramento
George Parker, California Dept. of Fish and Wildlife, Paynes Creek
Brian Rushton, California Dept. of Fish and Wildlife, Mount Shasta
Mark Clifford, California Dept. of Fish and Wildlife, Mount Shasta
Terry Jackson, California Dept. of Fish and Wildlife, Rancho Cordova
Mike Brown, California Dept. of Fish and Wildlife, Rancho Cordova
Shasta County Dept. of Resource Management, Division of Environmental Health, Redding

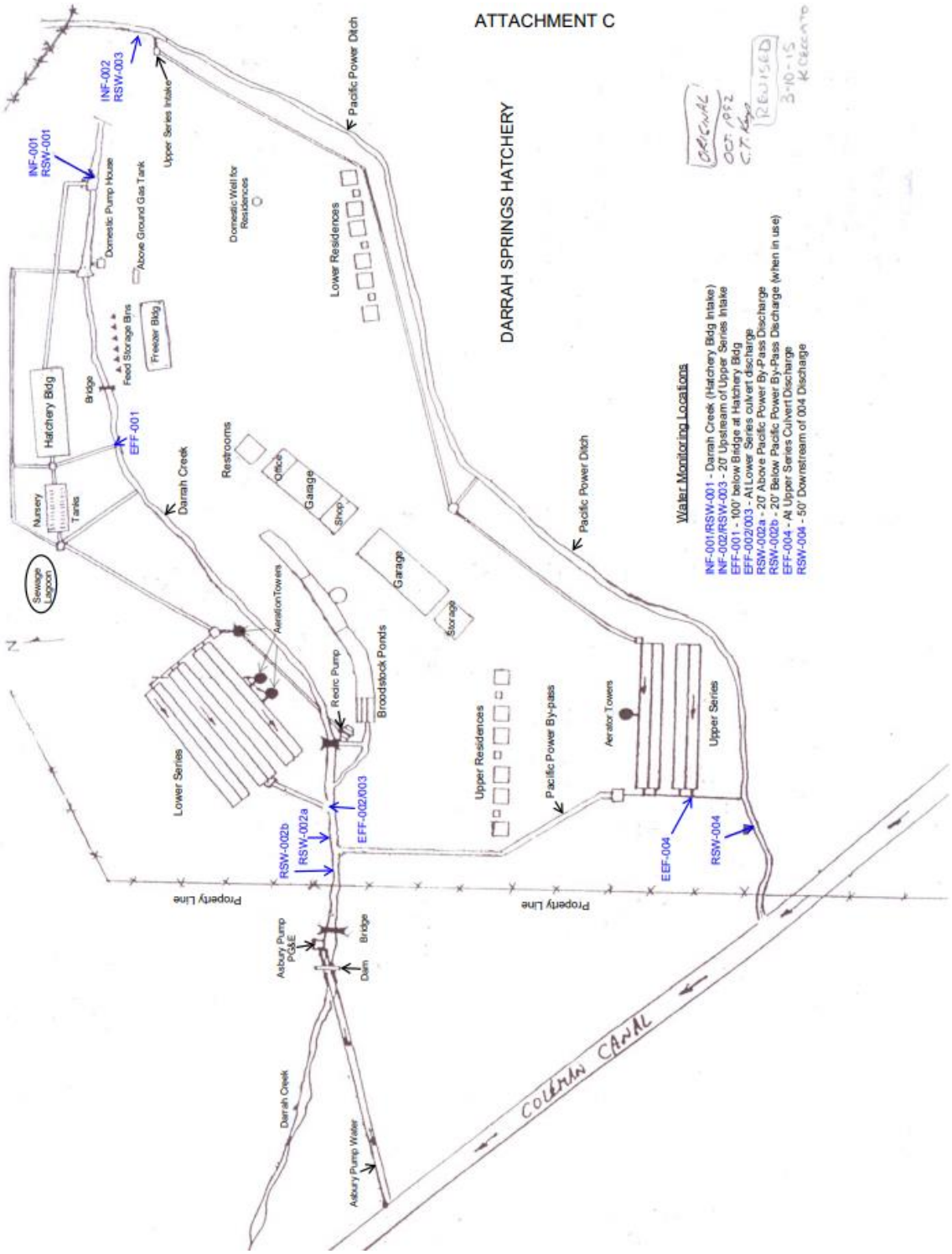
ENCLOSURE A - ADMINISTRATIVE INFORMATION

Waste Discharge ID:	5A450803002
CIWQS Facility Place ID:	219123
General Order NOA Enrollee Number:	R5-2019-0079-019
Discharger:	Department of Fish and Wildlife (CDFW)
Name of Facility:	Darrah Springs Hatchery
Facility Address:	29661 Wildcat Road
Facility City, State Zip:	Paynes Creek, CA 96075
Facility County:	Shasta County
Facility Contact, Title and Phone Number:	Tim Baker, Fish Hatchery Manager II (530) 474-3141
Landowner:	CDFW
Landowner Address:	601 Locust Street
Landowner City, State Zip:	Redding, CA 96001
Landowner Contact and Phone Number:	Eric Jones, (530) 225-2300
Authorized Person to Sign and Submit Reports:	Tim Baker, Brian Rushton, Mark Clifford, and Eric Jones
Mailing Address:	CDFW – Region 1 601 Locust Street Redding, CA 96001
Billing Address:	Same
Estimated Annual Total Weight Produced:	320,000 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:	26.7 million gallons per day (mgd)
Watershed:	Sacramento River Basin
Receiving Water:	Darrah Springs and PG&E's Pacific Power Ditch, tributaries to Battle Creek
Receiving Water Type:	Inland surface water

ENCLOSURE B – LOCATION MAP



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, respectively).

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	At a location where a representative sample can be collected of surface water from Darrah Springs Creek, before surface water enters the screen filters at the entrance to INF-001 [Approximate location: near 40°25’54.80” N latitude and 121°59’33.79” W longitude].
	INF-002	At a location where a representative sample can be collected of surface water diverted from PG&E’s Pacific Power Ditch, 20 ft. upstream of the Upper Raceway Series intake [Approximate location: near 40°25’48.24” N latitude and 121°59’28.57” W longitude].
001	EFF-001	Flow-through wastewater from the hatchery building can be released at Outfall 001. The source of this water originates from Darrah Springs Creek. Outfall 001 is no longer used but its designation is retained in the event of future use [Approximate location: 40°25’57.71” N latitude and 121°59’46.61” W longitude].

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
002	EFF-002	Several unnamed springs supply water to a concrete-lined broodstock raceway that is divided into three separate ponds. Historically the estimated flow from this outfall is between 0.65 and 6.5 mgd (the approximate flow from this outfall is 4.8 mgd). At times, approximately 80 percent of water departing the broodstock raceway can be pumped, aerated, and re-circulated through the Lower Raceway Series. Broodstock are not kept in the broodstock raceway on a regular basis and discharge from this outfall depends on resurgence rates from the unnamed springs. Monitoring completed at Outfall 003 can be used to meet monitoring requirements at this location. [Approximate location: 40°25’52.66” N latitude and 121°59’53.58” W longitude].
003	EFF-003	The Lower Raceway Series is supplied by several water sources including: surface water from Darrah Springs Creek, flow-through water from the hatchery building, and re-circulated water from the broodstock raceway. Historically the estimated flow from this outfall is between 7.1 and 15 mgd. Darrah Springs Creek flows into Ward’s Pond, located approximately 1,300 feet downstream of the Lower Raceway Series. Water from Ward’s Pond enters Baldwin Creek, a tributary to Battle Creek [Approximate location: 40°25’51.99” N latitude and 121°59’55.57” W longitude].
004	EFF-004	The Upper Raceway Series is supplied with surface water from PG&E’s Pacific Power Ditch. Historic estimated flow from this outfall is between 5.2 and 12 mgd (the approximate flow from this outfall is 7.1 mgd). For approximately six weeks during the summer, when PG&E completes maintenance on the Pacific Power Ditch, hatchery wastewater from the Upper Raceway Series is diverted to Darrah Springs Creek downstream of Outfall 003 [Approximate location: 40°25’43.02” N latitude and 121°59’54.71” W longitude].
	RSW-001	Monitoring at RSW-001 can be completed at monitoring location INF-001 (i.e., the Darrah Springs Creek hatchery building intake). 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: near 40°25’54.80” N latitude and 121°59’33.79” W longitude].

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
	RSW-002a	At a location in Darrah Springs Creek 20 ft. upstream of the spillway where discharge is routed from the Upper Raceway Series (when maintenance is performed on PG&E's Pacific Power Ditch) and before discharge from the grayling pond enters Darrah Springs Creek. Monitoring location RSW-002a is to be used when maintenance is not occurring in PG&E's Pacific Power Ditch [Approximate location: 40°25'51.58" N latitude and 121°59'56.35" W longitude].
	RSW-002b	At a location in Darrah Springs Creek 20 ft. downstream of the spillway where discharge is routed from the Upper Raceway Series (when maintenance is performed on PG&E's Pacific Power Ditch) and before discharge from the grayling pond enters Darrah Springs Creek. Monitoring location RSW-002b is to be used only during times of maintenance on PG&E's Pacific Power Ditch [Approximate location: 40°25'51.93" N latitude and 121°59'57.56" W longitude].
	RSW-003	Monitoring should be completed for this location at INF-002. Constituents monitored at INF-002 that are equivalent to parameters monitored at RSW-003 can be used for both INF-002 and RSW-003 monitoring requirements [Approximate location: 40°25'48.24" N latitude and 121°59'28.57" W longitude].
	RSW-004	At a location in PG&E's Pacific Power Ditch that is 50 feet downstream of Outfall 004. Monitoring at this location is unnecessary when discharge from Outfall 004 is diverted to Darrah Springs Creek [Approximate location: 40°25'41.75" N latitude and 121°59'55.61" W longitude].

III. INFLUENT MONITORING REQUIREMENTS (CAAP General Order, Attachment C, Section III.A)

A. When there is a discharge at Outfall(s) 001, 002, and/or 003, the Discharger shall monitor the influent source water supply to the Facility at Monitoring Location INF-001 for the frequencies/parameters specified in Table D-2 below. When there is a discharge at Outfall 004, the Discharger shall monitor the influent to the Facility at Monitoring Location INF-002 for the frequencies/parameters specified in Table D-2 below. When maintenance is occurring in PG&E's Pacific Power Ditch, and water is not available at INF-002, please make a notation in the cover letter detailing that information. Influent

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

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

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 (CAAP General Order, Attachment C, Section IV.A.1)

A. When there is a discharge at Outfall(s) 001, 002, 003, and/or 004, the Discharger shall monitor the effluent at Monitoring Location EFF-001, EFF-002, EFF-003, and EFF-004 for the frequencies/parameters specified in Table D-3 below. Monitoring completed at Outfall 003 can be used to meet monitoring requirements at Outfall 002. When monitored, net calculations for Outfall-002 can be completed using monitoring data from INF-001. 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

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.

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. 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).

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 (CAAP General Order, Attachment F). See CAAP General Order, Attachment C, 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. Per CAAP General Order, Attachment C, 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.

6. Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.018 mg/L.

7. Total Suspended Solids (TSS) samples shall be collected during the expected month of highest feeding.

B. Effluent Monitoring for Facilities with Intake Water Credits – Not Applicable

V. LAND DISCHARGE MONITORING REQUIREMENTS (CAAP General Order, Attachment C, Section VI)

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. The monitoring requirements contained in CAAP General Order, Attachment C, Section VI.B are applicable to this Facility.

VI. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER (CAAP General Order, Attachment C, Section VIII)

A. Sampling Locations. Receiving water samples shall be collected from Monitoring Locations RSW-001, RSW-002a, RSW-002b, RSW-003, and RSW-004 for the frequencies/parameters as specified in Table D-4 below. Receiving water samples shall be collected at approximately the same time as effluent samples.

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

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 quarterly self-monitoring report.

C. Receiving Water Monitoring. The Discharger shall monitor the receiving water at Monitoring Locations RSW-001 and RSW-002 when there is discharge at Outfall(s) 001, 002, or 003. The Discharger shall monitor the receiving water at Monitoring Locations RSW-003 and RSW-004 when there is discharge at Outfall 004. The Discharger shall monitor the receiving water at Monitoring Locations RSW-001, RSW-002, and RSW-003 when discharge from EFF-004 is diverted from PG&E's Pacific Power Ditch to Darrah Springs Creek.

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 (CAAP General Order, Attachment C, Section IX)

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

(CIWQS) Program website (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).

Due to the issuance date of the NOA being past 1 January 2023, the Priority Pollutant Metals Monitoring **shall occur no later than 6 months following the effective date of the NOA.**

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.

CI. REPORTING REQUIREMENTS (CAAP General Order, Attachment C, Section X)

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 January 2024**. 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 May 2024** and shall include monitoring conducted from 1 January through 31 March. 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 January 2024	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 January 2024	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 January 2024	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 **within 60 days of the issuance of the NOA** (**29 January 2024)**. 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	75 mL per 10 gallons water	Bath	None (not discharged)
Carbon Dioxide	Less than 1 gallon compressed gas	Bath: Bubbled in water. Usually used in small volumes of water.	None
Chloramine T	12-20 mg/L as prescribed by Veterinarian	Flush or Bath: Dosage of 12-20 mg/L for 60 min daily or every other day for 3 treatments. Bath: used at a concentration of 20 ppm for 1 hour.	6 ppm per raceway treated
Epsom Salt (Magnesium Sulfate)	100 mg per 1 kg of live fish	Feed: Used in “medicated” feed or fish pills at a rate of 100 mg/kg of fish or top coated onto feed at 3% (30 g/kg) for 3 days.	None
Enteric Redmouth (ERM) Vaccine	1 L per 200 lbs of fish, one event each year, once per each fish’s life duration at the hatchery	Dip: Each fish is vaccinated once. Vaccine dumped after use.	None (not discharged)
Florfenicol	50 to 300 g as feed additive by prescription	Medicated Feed: 10-15 mg/kg of fish for 10 consecutive days.	Negligible

Drug or Chemical	Maximum Daily Amount Used	Method of Application	Maximum Amount in Effluent
Formalin (37% formaldehyde solution)	170 ppm for up to one hour in a static bath	Bath: Up to 170 ppm for up to 1 hour. 15 minutes flow through egg incubation stacks at 1,000 ppm at 5 gallons per minute flow.	0.63 ppm per deep tank treated or 0.60 ppm per egg stack treated
Hydrogen Peroxide	Approximately 8 gal/cfs as prescribed by Veterinarian	Flush: Used at a rate of 100 ppm or less for 30 minutes, or 50-100 ppm for 60 minutes, every other day, for up to 3 days or as prescribed by Veterinarian.	15 ppm per raceway treated
MS-222 / tricaine methanesulfonate (Finquel®, Tricaine-S®)	Varies. Used 2-3 times per month.	Bath: used at a rate of 50 to 1000 mg/L, usually in a small volume of water.	None (not discharged)
Oxytetracycline dihydrate	Varies	Feed additive: 3.75 g per 100 lbs of fish per day for 10 days.	Negligible
Penicillin G potassium	150 to 300 IU per mL	Bath: Used in tanks for six to eight hours at a concentration of 150 IU/mL (Packet: 500,000,000 IU/311.8 gm.)	Up to 45 IU/mL per raceway treated
Potassium Permanganate	8 to 12 oz. Used 2 to 3 times per month.	Flush: Up to 2 ppm for 1 hour, for up to 3 consecutive treatment days. Bath: Used at a rate of 2 ppm, or less, for 1 hour.	0.3 ppm per raceway treated
PVP Iodine	100 mg/L for 10 to 30 minutes	Bath: Used at a concentration of 100 mg/L for 10 to 30 minutes	None (not discharged)
Sodium chloride (salt)	200 lbs. Used 4 to 6 times per month.	Flush: Used at a rate of up to 3% for 1 hour, daily if needed. Or at a lesser concentration during transport.	195 ppm per raceway treated

Drug or Chemical	Maximum Daily Amount Used	Method of Application	Maximum Amount in Effluent
Thiamine mononitrate	Varies. Estimated 2 to 3 times per month	Bath: Used at a recommended concentration of 2000 mg/L for 1 hour.	7.4 ppm per deep tank treated