

Central Valley Regional Water Quality Control Board

22 December 2015

CERTIFIED MAIL:

7015 1660 0000 2319 3165

Scott Hamelberg
Project Complex Leader
U.S. Fish and Wildlife Service
Coleman National Fish Hatchery
24411 Coleman Fish Hatchery Road
Anderson, CA 96007

CERTIFIED MAIL:

7015 1660 0000 2319 3172

Brett Galyean
Deputy Complex Manager
U.S. Fish and Wildlife Service
Coleman National Fish Hatchery
24411 Coleman Fish Hatchery Road
Anderson, CA 96007

NOTICE OF APPLICABILITY, GENERAL WASTE DISCHARGE REQUIREMENTS FOR COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY DISCHARGES TO SURFACE WATERS, ORDER R5-2014-0161 (CAAP GENERAL ORDER), UNITED STATES DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE, COLEMAN NATIONAL 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 the United States Department of Interior, Fish and Wildlife Service's (hereinafter Discharger) Coleman National Fish Hatchery (hereinafter Facility) on 31 August 2010 for coverage under Order R5-2010-0018.

On 5 December 2014, the Central Valley Water Board adopted Order R5-2014-0161, renewing the CAAP General Order. The Discharger submitted a notice of intent on 26 June 2014 to continue coverage under the CAAP General Order. Effective **22 December 2015**, this NOA establishes continued coverage for the Facility under the CAAP General Order for discharge of hatchery wastewater to Battle Creek, superseding a previous NOA issued 31 August 2010. This Facility is assigned Order R5-2014-0161-028 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001. Please reference CAAP General Order **R5-2014-0161-028** 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

The CAAP General Order is enclosed and may also be viewed at the following web address: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/. The Central Valley Water Board advises the Discharger to be familiar with the entire CAAP General Order. Facility operations and discharges shall be managed in accordance with requirements contained in the CAAP General Order, this NOA, and with information submitted by the Discharger.

FACILITY INFORMATION/DISCHARGE DESCRIPTION

The Facility is located along the north bank of Battle Creek on property owned and operated by the Discharger, within the Ash Creek Hydrologic Subarea No. 507.21 in Anderson, CA, Shasta County (near 40°24'2.52" N latitude and 122°8'39.84" W longitude), as shown in Enclosure B, a part of this NOA.

The Discharger operates a fish hatchery to raise juvenile fall Chinook salmon, late fall Chinook salmon, and steelhead trout. Salmon are reared at the Facility to mitigate for the loss of historical spawning areas, where access to spawning grounds was blocked by the construction of dams. The Discharger takes adult salmon from Battle Creek, collects eggs and milt from taken adult salmon, incubates fertilized eggs until the juvenile stage of the salmonid life cycle, and rears juvenile fish in concrete lined raceways. In April of each year, fall Chinook salmon are released into Battle Creek at a body length of approximately three to six inches. Steelhead trout are reared in raceways from June until January and released directly into the Sacramento River when trout have body lengths of about eight to ten inches. Fish rearing occurs in concrete lined raceways and incubation trays utilizing a continuous flow-through water system. The Facility contains an administration building, several on-site residential housing buildings, a cold storage building, a fish ladder, spawning and maintenance buildings, two settling basins, four dual-media traveling bridge filters (containing anthracite coal and sand media), an ozone production and treatment facility, a pollution abatement pond, an unlined earthen percolation pond, several adult salmon holding ponds, 58 concrete lined rearing raceways (30 raceways are 8 feet wide by 80 feet long; 28 raceways are 15 feet wide by 150 feet long), and other ancillary operations. The Discharger maintains a fish ladder within Battle Creek that allows fish passage upstream from the Facility between March and August; however, fish are diverted into the hatchery during the remaining months of the year.

Excess adult salmon, not taken for egg or milt, are provided to a seafood processing company and/or the Bureau of Indian Affairs for distribution to Native Americans. All other carcasses and defunct eggs are sent to a rendering company.

The Discharger has spill prevention measures in place for the storage and use of onsite chemicals. The Discharger's current Spill Prevention Control and Countermeasure Plan were prepared by a registered engineer in August 2012. The Facility has generators for backup power with an energy generation capacity of 2,500 kilowatts (KW), which requires fuel storage in three diesel fuel tanks with a total volume of 9,000 gallons (gal). In addition, the Facility has one gasoline tank (500 gal), one waste oil tank (500 gal), and one tank for storage of formaldehyde (110 gallon stainless steel pressure tank within a containment tank). All tanks have double walls with tertiary containment. Waste oil, from equipment oil changes, is periodically collected by an outside vendor.

To remove silt, sediment, bacteria, viruses, and pathogens, intake water is treated with at least one of the following, prior to distribution to the incubation trays and/or concrete rearing raceways:

- **Settling Basins:** A portion of intake water, approximately 50 cubic feet per second (cfs), is treated in two concrete lined settling basins, each with a capacity of about 1.2 million gallons and a detention time of approximately 1.5 to 2 hours. The settling basins are dewatered and cleaned annually to remove accumulated deposits.

- **Dual-Media Traveling Bridge Filters:** There are four dual-media traveling bridge filters containing both a sand and anthracite coal filter media with a total detention time of 15 to 30 minutes and a design flow rate of about 95.8 cfs. The traveling bridge filters are used daily and backwash cycles for filter cleaning are automated, with cleaning frequency dependent on the turbidity differential between feed water and filtrate. All backwash water is piped to a pollution abatement pond. In addition, the traveling bridge filters are cleaned with sodium hypochlorite at least once per year. The sodium hypochlorite is retained for 48 to 96 hours prior to discharge to a pollution abatement pond.
- **Ozone Treatment Facility:** A portion of treated water from the dual-media traveling bridge filters are routed to the ozone treatment facility. Ozone remains in contact with water for 15 minutes, which is sufficient time to oxidize any viral, bacterial, and protozoan organisms that could affect fish reared at the Facility. The ozone treatment facility is automated and computer controlled and has a maximum design capacity of 66.8 cfs.

The Discharger reported, in a notice of intent, the estimated maximum five-year annual harvestable fish produced and estimated maximum monthly feed use (Table 1):

Table 1. Estimated Aquatic Animal Production and Feed Use

Maximum Annual Harvestable Aquatic Animal Production (lbs)	Maximum Monthly Feed Use (lbs)
Fall Chinook Salmon – 140,000	32,000
Late Fall Chinook Salmon – 85,000	
Steelhead Trout – 155,000	

Hatchery wastewater is discharged from the Facility to Battle 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 – Untreated overflow water from the Hatchery Canal and the settling basins is routed through a creek, unofficially named “Neves Creek,” and discharged to Battle Creek through Outfall 001. No wastes are introduced into freshwater entering Neves Creek; therefore, discharge at this outfall should be similar to the comingled surface water quality of Battle Creek and the Coleman Powerhouse tailrace. Estimated flow from this outfall is between 5 and 15 cfs.

Outfall 002 – When chemicals are not used continuous flow-through water from the concrete lined raceways and the hatchery building is discharged to Battle Creek through Outfall 002. Because oxytetracycline is in fish food, and fish are fed in the raceways, oxytetracycline has the potential to be introduced into the waste stream at Outfall 002. Estimated flow from this outfall is between 4 and 33 cfs.

Outfall 003 – Water from the concrete lined raceways and the hatchery building, during any cleaning operations, medication application, or chemical use, is routed to a pollution abatement pond prior to discharge to Battle Creek through Outfall 003. The unlined earthen pollution abatement pond (approximately five acres in area) has a detention time of about 12 hours to several days, which depends on the volume of water discharged during cleaning operations. Estimated flow from this outfall is between 22 and 45 cfs.

Outfall 004 – Continuous flow-through water from the spawning building and adult holding ponds is discharged to Battle Creek through a fish ladder at Outfall 004. Source water from the adult holding ponds is continuous flow-through water from the raceways, pre-release pond, and Neves Creek. Mature fish swim upstream through the fish ladder against discharge flows and are collected in adult holding ponds to be harvested for eggs and milt. Feed and/or medication are not used in the adult holding ponds. The fish ladder is only utilized during the spawning season from September to March. Estimated flow from this outfall is between 25 and 29 cfs.

During the spawning season, wash water from the spawning building, which generally contains eggs and blood, is pumped to an unlined earthen percolation pond (approximately 0.5 acres in area) east of the spawning building (near 40° 23' 55.74" N latitude and 122° 8' 48.83" W longitude). There is no direct discharge from the unlined earthen percolation pond to surface water.

An on-site domestic well is used to supply the Facility with potable water. The potable water is disinfected with ultraviolet light before distribution throughout the Facility. Domestic wastes from the Facility are discharged to a septic tank/leachfield system. In addition, each of the five residences has their own septic tank and effluent from each tank is routed to a shared leachfield.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V., Effluent Limitations and Discharge Specifications, of the CAAP General Order. The following effluent limitations (Table 2) are applicable to this discharge and are contained in Sections V.A of the CAAP General Order:

- a. 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 Limitation
Formaldehyde	mg/L	0.65 ¹	1.3 ¹
Chlorine	mg/L	--	0.018

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 the CAAP General Order (Section IX.A of Attachment C, Monitoring and Reporting Program).

- b. 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.

RECEIVING WATER LIMITATIONS

Discharge from the Facility to Battle Creek is within the Sacramento and San Joaquin River Basins, therefore, the receiving water limits contained in the CAAP General Order for the Sacramento and San Joaquin River Basins are applicable to this discharge.

OTHER REQUIREMENTS

1. Discharge from Outfall 001, Outfall 002, Outfall 003, and Outfall 004 shall not exceed a combined average daily flow of 122.4 cfs. A description of each outfall location is provided in Table D-1 of Enclosure D.
2. Collected screenings and other solids, including fish carcasses, shall be disposed of in a manner approved by the Executive Officer, and consistent with the *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Section 2005, et seq.
3. The Discharger shall continue to electronically submit Self-Monitoring Reports (SMRs) using the State Water Resources Control Board's California Integrated Water Quality System (CIWQS) program (website <http://www.waterboards.ca.gov/ciwqs/index.html>). Directions for SMR submittal are provided on the CIWQS website in the event of a service interruption during electronic submittal.
4. Aquaculture activities defined in the Code of Federal Regulations (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, as described in Title 23 of the California Code of Regulations, Division 3, Chapter 9, Article 1, Section 2200(b)(9) for Category 3 discharges.
5. The CAAP General Order expires on **31 December 2019**. Only those CAAP facilities authorized to discharge and who submit a notice of intent **at least 180 days** prior to the expiration date of Order R5-2014-0161 will remain authorized to discharge under administratively continued permit conditions.
6. 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 **21 March 2016**. 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 a salinity evaluation and minimization plan to address salt treatments, if any, at the Facility. 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.

ENFORCEMENT

Failure to comply with the CAAP General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations can be subject to a mandatory minimum penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports can be subject to penalties. When discharges do not occur during a monitoring period, the Discharger must still submit monitoring reports indicating that no discharge occurred to avoid being subject to enforcement actions.

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 the Central Valley Water Board's NPDES unit at (530) 224-4845.

Please note that we are transitioning to a paperless office. Therefore, all documents other than monitoring reports shall be converted to a searchable portable document format (i.e., a document with a "pdf" extension) and submitted by email to centralvalleyredding@waterboards.ca.gov. Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to our office, attention "ECM Mailroom."

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 et seq. 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 Order 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.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Original Signed by Clint Snyder, for

Pamela C. Creedon
Executive Officer

ZHC:reb

Enclosures (6):

- 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 Drug and Chemical Use
- 6) CAAP General Order R5-2014-0161 (Discharger only)

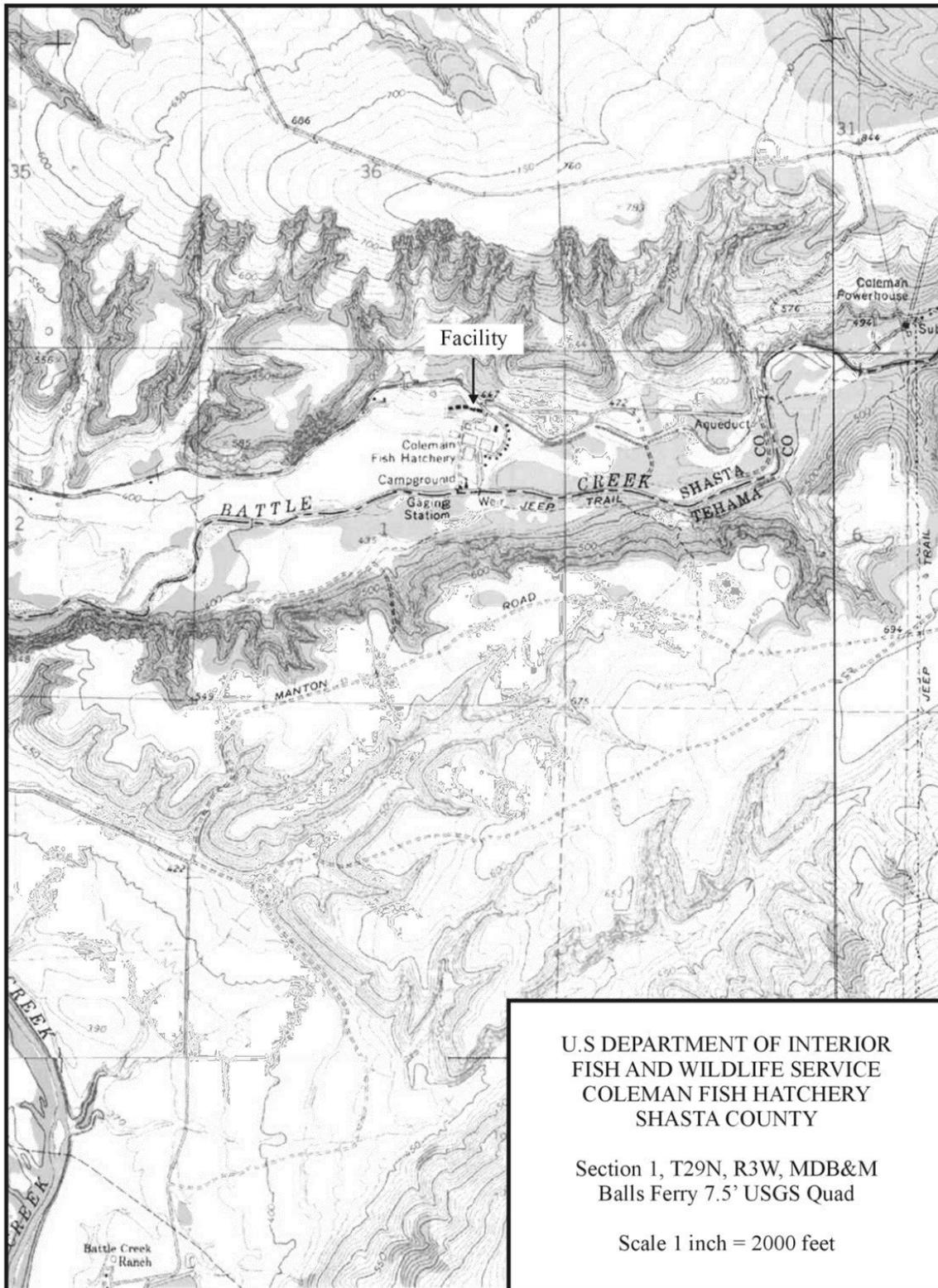
cc by David Smith, U.S. EPA, Region IX, San Francisco
email: Phil Isorena, State Water Resources Control Board, Sacramento

R:\RB5\R5RSection\N Central Valley\Cross Section\Clerical\North\ZChandler\2015\NOA -ColemanHatchery- Dec 2015.docx

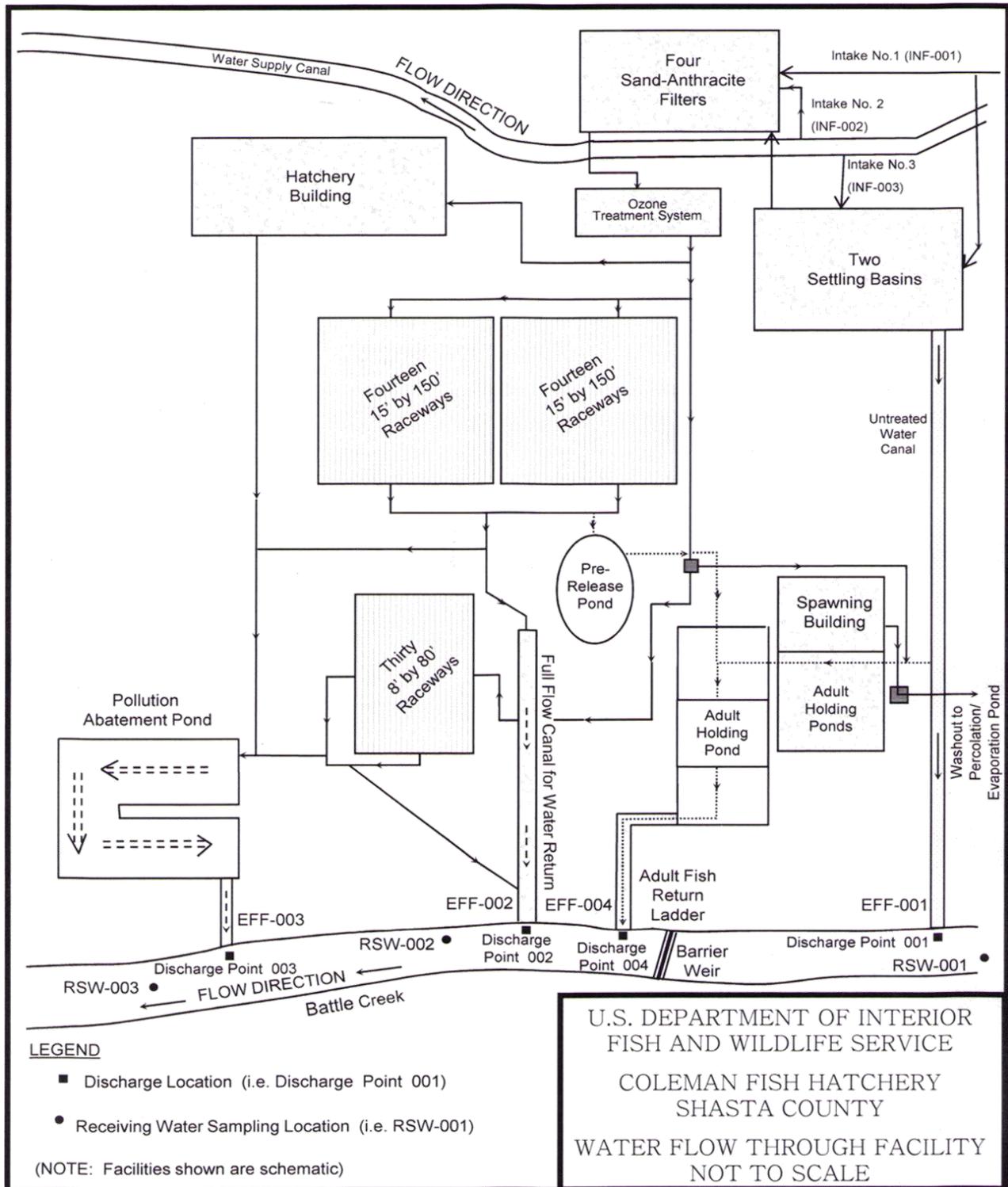
ENCLOSURE A – ADMINISTRATIVE INFORMATION

Name of Facility	Coleman National Fish Hatchery
Type of Facility	Cold Water Concentrated Aquatic Animal Production Facility, SIC Code 0921
WDID	5A450707001
General Order NOA Enrollee Number	R5-2014-0161-028
Discharger	U.S. Fish and Wildlife Service
Facility Address	24411 Coleman Fish Hatchery Road Anderson, CA 96007
Land Owner (Address)	24411 Coleman Fish Hatchery Road Anderson, CA 96007
Facility Contact, Title, and Phone	Brett Galyean, Deputy Complex Manager, (530) 365-8622
Authorized Person to Sign and Submit Reports	Scott Hamelberg, Complex Project Leader, (530) 365-8622 Brett Galyean, Deputy Complex Manager, (530) 365-8622
Mailing Address	24411 Coleman Fish Hatchery Road Anderson, CA 96007
Billing Address	24411 Coleman Fish Hatchery Road Anderson, CA 96007
Maximum Estimated Total Annual Weight of Fish Production	380,000 lbs
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Facility Permitted Flow	122.4 cfs
Watershed	Sacramento River Basin
Receiving Water	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 obligated to comply with the monitoring and reporting requirements contained in the CAAP General Order, Attachment C – Monitoring and Reporting Program. To the extent of the CAAP General Order, Attachment C provides conditions that the NOA specify certain requirements and Enclosure D provides such specificity. Enclosure D also provides a summary of other requirements described in Attachment C of the CAAP General Order.

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

- A. Monitoring Locations.** Monitoring locations are defined as follows in Table D-1 and a flow schematic showing site-specific monitoring locations is provided in Enclosure C, a part of this NOA.

Table D-1. Monitoring Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001a and INF-001b	At a location where a representative sample can be collected for surface water diverted from the Coleman Powerhouse tailrace near 40° 24' 13.50" N latitude and 122° 7' 26.71" W longitude. INT-001a and INT 001b have maximum intake design flow rates of 72 cfs and 50 cfs, respectively. Monitoring can be completed from either of the two intake pipes.
--	INF-002	At a location where a representative sample can be collected for surface water diverted from Battle Creek into INF-002 near 40° 24' 10.63" N latitude and 122° 7' 30.87" W longitude.
--	INF-003	At a location where a representative sample can be collected for surface water diverted from Battle Creek into INF-003 near 40° 24' 4.61" N latitude and 122° 7' 47.49" W longitude.
Outfall 001 or Discharge Point 001	EFF-001	Untreated overflow water from the Hatchery Canal and the settling basins is routed to Neves Creek and discharged to Battle Creek through Outfall 001. No wastes are introduced into surface water entering Neves Creek; therefore, discharge at this outfall should be similar to the comingled surface water quality of Battle Creek and the Coleman Powerhouse tailrace. [Approximate location: 40° 23' 54.74" N latitude and 122° 8' 38.03" W longitude]
Outfall 002 or Discharge Point 002	EFF-002	When chemicals are not utilized, continuous flow-through water from the concrete lined raceways and the hatchery building is discharged to Battle Creek through Outfall 002. Hatchery wastewater at this location shall be collected and sampled after the last point at which wastes are introduced, prior to the discharge comingling with EFF-004 discharge, and prior to the discharge entering Battle Creek. [Approximate location: 40° 23' 53.86" N latitude and 122° 8' 42.65" W longitude]

Table D-1. Monitoring Locations-Continued

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Outfall 003 or Discharge Point 003	EFF-003	Wastewater from the pollution abatement pond is discharged to Battle Creek through Outfall 003. Wastewater at this location shall be collected and sampled after the last point of wastewater treatment and prior to the treated wastewater entering Battle Creek. [Approximate location: 40° 23' 53.50" N latitude and 122° 8' 48.83" W longitude]
Outfall 004 or Discharge Point 004	EFF-004	Continuous flow-through water from the spawning building and adult holding ponds is discharged to Battle Creek through a fish ladder at Outfall 004. Hatchery wastewater at this location shall be collected and sampled, prior to the hatchery wastewater comingling with EFF-002, and prior to the flow-through hatchery wastewater entering Battle Creek. [Approximate location: 40° 23' 53.79" N latitude and 122° 8' 42.40" W longitude]
--	RSW-001	Located about 25 ft. upstream of the location where discharge from Outfall 001 flows into Battle Creek.
--	RSW-002	Located about 25 ft. downstream of the location where discharge from Outfall 002 flows into Battle Creek.
--	RSW-003	Located about 25 ft. downstream of the location where discharge from Outfall 003 flows into Battle Creek.

B. Influent Monitoring Requirements. When there is a discharge at Outfall(s) 001, 002, 003, and/or 004, and when any intake location is in operation, the Discharger shall monitor influent to the Facility at monitoring location(s) INF-001a (see footnote 1 in Table D-2), INF-001b (see footnote 1 in Table D-2), INF-002, and/or INF-003, as follows:

Table D-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
pH	S.U.	Grab	1/month ³	2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/month ³	2
Copper (Total Recoverable)	µg/L	Grab	1/month during CuSO ₄ use ^{3,4}	2
Hardness (as CaCO ₃)	mg/L	Grab	1/month during CuSO ₄ use ³	2
Total Suspended Solids	mg/L	Grab	1/month ³	2

¹ Sampling is required at monitoring locations that are in use during any operating month. When INF-001a and INF-001b are in use, a representative sample of the influent from both locations can be made by sampling one location only, either INF-001a or INF-001b.

² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136.

³ Samples shall be collected approximately at the same time as effluent samples.

⁴ The maximum reporting level required for total recoverable copper is 0.5 µg/L, in accordance with Section 2.4.2 and Appendix 4 of the SIP.

C. Effluent Monitoring Requirements. When there is a discharge at Outfall(s) 001, 002, 003, and/or 004, the Discharger shall monitor effluent at monitoring location(s) EFF-001, EFF-002, EFF-003, and/or EFF-004, respectively, as follows:

Table D-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	cfs	Flow Measurement Device ¹	1/week	--
Total Suspended Solids (TSS)	mg/L	Grab	1/month	2
Net TSS (effluent minus influent)	mg/L	Net Calculation	1/month	--
Turbidity	NTU	Grab	1/month	2
pH	S.U.	Grab	1/month ⁴	2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/month ^{3,7}	2
Copper (Total Recoverable)	µg/L	Grab	1/month during CuSO ₄ use ^{4,7}	2
Hardness (as CaCO ₃)	mg/L	Grab	1/month during CuSO ₄ use ⁴	2
Formaldehyde	mg/L	Grab	1/month during Formalin use ⁷	2,5
Chlorine	mg/L	Grab	1/quarter during chlorine use ⁷	2,6

- ¹ Effluent flow shall be monitored weekly using either a flow measurement device or method as required by CAAP General Order, Attachment C, Section I.E.
- ² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136.
- ³ Samples shall be collected monthly. If sodium chloride is used, the monthly monitoring of EC shall be conducted during treatment.
- ⁴ The maximum reporting level required for total recoverable copper is 0.5 µg/L, in accordance with Section 2.4.2 and Appendix 4 of the SIP. The monthly sample shall be collected during the time of peak discharge of copper, at least one hour after start of treatment. Effluent hardness and pH shall be measured at the same time as total recoverable copper.
- ⁵ Estimated concentrations of formaldehyde may be reported in lieu of analytical monitoring during Formalin use. See Section IX.A of the CAAP General Order for calculation procedures. If analytical monitoring is conducted, when Formalin is added to the waters of the Facility, formaldehyde concentration shall be measured during time of peak discharge of Formalin, at least one hour after start of treatment.
- ⁶ Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.018 mg/L.
- ⁷ Per Section IX.A of the CAAP General Order, 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.

D. Receiving Water Monitoring Requirements. When there is a discharge at Outfall(s) 001, 002, 003, and/or 004, receiving water samples shall be collected from monitoring location(s) RSW-001, RSW-002, and RSW-003, as follows.

Table D-4. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/month	1
Temperature	°C	Grab	1/month	1
Turbidity	NTU	Grab	1/month	1
pH	S.U.	Grab	1/month	1
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/month	1
Hardness (as CaCO ₃)	mg/L	Grab	1/month during CuSO ₄ use ²	1

¹ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136.

² When copper sulfate is added to waters of the facility, hardness (as CaCO₃) shall be measured monthly during treatment.

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 monitoring report.

E. Land Discharge Monitoring Requirements. The Discharger shall conduct septic tank and leachfield inspections annually and report the findings in the annual self-monitoring reports (**due 1 February, annually**) in accordance with Section VI.A of the CAAP General Order.

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

G. Annual Feeding and Production Report. The Discharger shall develop an annual feeding and production report in accordance with the CAAP General Order,

Attachment C, Section IX.C. The report shall be submitted **annually 28 February** and include 1) monthly food usage in pounds for each calendar month of the previous year, and 2) annual production of aquatic animals in pounds per year for the previous year.

H. Priority Pollutant Metals Monitoring. In accordance with the CAAP General Order, Attachment C, Section IX.B, the Discharger shall monitor the effluent (at monitoring locations EFF-001, EFF-002, EFF-003, and EFF-004) and the upstream receiving water (RSW-001) for the metals listed in Table G-1 of the CAAP General Order, once during the term of Order R5-2014-0161. **The monitoring shall occur after 1 January 2018, but no later than 1 July 2019.** 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/ciwqs/index.html>), **within 60 days of the final sampling event.** Refer to CAAP General Order, Attachment G, for the specific monitoring requirements.

REPORTING REQUIREMENTS

Self-monitoring reports (SMRs) are required to be submitted quarterly and annually. Table D-5, below, summarizes SMR due dates required under the CAAP General Order. Quarterly monitoring reports must be submitted until coverage is formally terminated in accordance with the CAAP General Order, even if there is no discharge during a reporting quarter.

Table D-5. SMRs required in the Monitoring and Reporting Program (Attachment C, CAAP General Order)

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/month	1 January 2015	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 February of following year (1 Oct – 31 Dec)
1/quarter	1 January 2015	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 February of following year
1/year	1 January 2015	January 1 through December 31	1 February of following year

In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition and/or limitation of the CAAP General Order, the Discharger shall notify the Central Valley Water Board by telephone at (530) 224-4845 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley Water Board waives confirmation. Written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe measures being taken to remedy current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal self-monitoring report.

ENCLOSURE E – APPROVED AQUACULTURE DRUGS AND CHEMICALS USE

The following drugs and chemicals are used at the Facility to prevent/medicate fish for any potential contamination by bacteria, fungi, viruses and pathogens, and to reduce the spread of disease among the confined fish population. Some chemicals may be used to clean Facility treatment/operation components.

Drug or Chemical	Estimated Maximum Daily Amount Used	Method of Application	Estimated Maximum Amount in Effluent
Paracide M at 37% active Formaldehyde	26.2 L (6.9 gal.)	Drip	1.0 mg/L
Cl ₂ as Calcium Hypochlorite at 68% active	200 lbs.	Bath	1.0 µg/L
Cl ₂ as Trichloro-S-triazinatrione at 99% active	0.86 lbs (390.4 g)	Drip	7.8 µg/L
Povidone-iodine (PVP-I)	16.9 L (4.5 gal.)	Bath	0.17 mg/L
Terramycin 200 at 44% active Oxytet	1.3 lbs.	Added by feed manufacturer	0.02 mg/L
ERM Bacterin	6 L at 1 g bacterin/L	Bath	0.07 mg/L
Tricaine methanesulfonate (MS-222) at 350 mg/L	33.2 g in 95 L of water	Bath	0.63 mg/L
Sodium Chloride	200 lbs.	Bath	58 mg/L
Carbon Dioxide	4,683 g	Bath	0.11 g/L