



## **Central Valley Regional Water Quality Control Board**

10 July 2015

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REVISED 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); CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE AND UNITED STATES BUREAU OF RECLAMATION, NIMBUS SALMON AND STEELHEAD HATCHERY AND AMERICAN RIVER TROUT HATCHERY, SACRAMENTO COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) issued a Notice of Applicability (NOA) to the California Department of Fish and Wildlife and the United States Bureau of Reclamation (hereinafter "Discharger") on 9 November 2012, for coverage under the CAAP General Order for the Nimbus Salmon and Steelhead Hatchery (Nimbus Fish Hatchery) and American River Trout Hatchery (American River Hatchery). The Nimbus and American River Hatcheries are hereinafter referred to as the "Facility."

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 13 June 2014, and supplemental information on 2 July 2014, to continue coverage for the Facility under the CAAP General Order. Based on this information, an NOA was issued on 31 December 2014, superseding the 9 November 2012 NOA and providing continued coverage for the Facility under the CAAP General Order to discharge to the American River. However, on 27 January 2015 and 6 July 2015 the Discharger submitted information requesting a revision to Enclosure E, Approved Aquaculture Drugs and Chemicals. The Discharger indicated there were errors regarding some values for the maximum daily aquaculture drug use. Effective immediately, this revised NOA supersedes the NOA issued on 31 December 2014.

CAAP General Order R5-2014-0161-019-01 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001 are assigned for this Facility. Administrative information for the Facility is provided in Enclosure A, a location map is provided in Enclosure B, a flow schematic is provided in Enclosure C, a Monitoring and Reporting Program is provided in Enclosure D, and approved aquaculture drugs and chemicals use are found in Enclosure E, all of which are included as part of this NOA. Please reference your CAAP General Order number **R5-2014-0161-019-01**, in all correspondence and submitted documents.

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

Drew Lessard, USBR

Nimbus and American River Fish Hatcheries

The CAAP General Order may be viewed at the following web address:

http://www.waterboards.ca.gov/centralvalley/board\_decisions/adopted\_orders/. You are urged to familiarize yourself with the contents of the entire CAAP General Order. 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.

### FACILITY INFORMATION/DISCHARGE DESCRIPTION

The Nimbus and American River Hatcheries are located on the south bank of the American River, downstream from Hazel Avenue and Lake Natoma in Rancho Cordova, Sacramento County (T9N, R7E, MDB&M, latitude N 38° 38' 04"/longitude W 121° 13' 40" and latitude N 38° 38' 02.92"/longitude W 121° 13' 36.30", respectively), as shown in Enclosure B, a part of this NOA. Both the Nimbus and American River Hatcheries are located on property owned by the United States Bureau of Reclamation. The Nimbus and American River Hatcheries are owned by the United States Bureau of Reclamation and the California Department of Fish and Wildlife, respectively. The Nimbus and American River Hatcheries are operated by the California Department of Fish and Wildlife.

The Nimbus Fish Hatchery produces juvenile Chinook salmon and steelhead to mitigate the loss of anadromous fisheries resources due to the operation of Folsom and Nimbus dams. It traps adult fish, collects, incubates, and hatches fish eggs, and rears juvenile fish. The fish are reared for up to a year and trucked to several California water bodies for release. The fish rearing occurs in concrete raceways utilizing a flow-through, single-pass water system. The Nimbus Fish Hatchery consists of a fish ladder for adult salmon and steelhead, four holding ponds for adult fish, 80 fiberglass tanks (20 ft. long by 4 ft. wide and 2.5 ft. deep) for rearing eggs and fry, two hatchery buildings, six cement rearing raceways (400 ft. long by 10 ft. wide and 3.5 ft. deep), a percolating pond (PND-005N, which is 219 ft. long by 108 ft. wide and a variable depth depending on the amount of water that is flowing into the pond), and other ancillary operations.

The American River Hatchery obtains fish eggs or fingerling fish from other hatcheries, or collects fish eggs at remote sites. The eggs are incubated and hatched, and fish are reared to various sizes to accommodate various management strategies. Most of the fish are reared for almost a year to reach "catchable size" (1/2 pound) and trucked to several California water bodies for release. The American River Hatchery receives fertilized trout eggs for hatching and raises fish in ten cement rearing raceways (600 ft. long by10 ft. wide and 3.5 ft. deep), 2 nursery tanks (150 ft. long by 5 ft. wide and 3.0 ft. deep), 35 aluminum tanks (15.8ft. long by 2.8 ft. wide and 2 ft. deep) for rearing eggs and fry, and a percolating pond (PND-005S). A small number of inland salmon are also raised at the American River Hatchery.

The Discharger utilizes two parallel settling ponds for the disposal of wastewater from raceways and rearing ponds, the incubator building, the fish disease laboratory, and local surface drainage. Intake water from Lake Natoma, upstream from Nimbus Dam, is conveyed to the hatcheries via a common 60-inch line. Lake Natoma is part of the American River system which flows into the Sacramento River. Combined water intake for both hatcheries was reported by the Discharger as approximately 60 to 70 million gallons per day (mgd). All water is used on a flow-through basis, and the process wastewater is discharged to the American River through multiple outfalls. There is also seepage from the settling ponds when in use.

In the Notice of Intent the Discharger reported the 5-year maximum annual harvestable fish production and the maximum monthly feed use for the hatcheries (Table 1):

Table 1. Aquatic Animal Production and Feed Use

| Hatchery                   | Maximum Annual Harvestable Aquatic Animal Production (lbs) <sup>1</sup> |            |  |
|----------------------------|---|------------|--|
| Nimbus                     | Steelhead - 130,000 lbs   | 19,000 lbs |  |
| Hatchery                   | Salmon - 70,000 lbs   |            |  |
| American<br>River Hatchery | Rainbow Trout - 453,500 lbs   | 88,000 lbs |  |
|                            | Lahontan Cutthroat Trout - 12,735 lbs                                   |            |  |
|                            | Kokanee Salmon - 3,019 lbs  |            |  |
|                            | Brown Trout - 6,400 lbs   |            |  |

Maximum production and feed use within the last 5 years

Wastewater is discharged from the Facility to the American River through four outfalls (001, 002, 004N, and 004S) as shown in Enclosure C, a part of this NOA, and as described below:

**Outfall 001** – Overflows from the Nimbus Hatchery holding ponds and the fish ladder. Discharge is seasonal, with flow typically from November to April when the fish ladder is open. The estimated flow from this outfall is 19 million gallons per day (mgd).

Latitude: 38° 38' 07.33" N and Longitude: 121° 13' 31.83" W.

**Outfall 002** – Wastewater discharges seasonally (November through July) from the Nimbus Fish Hatchery buildings during egg incubation. The estimated flow from this outfall is 3 mgd. Latitude: 38° 38' 05.90" N; and Longitude: 121° 13' 35.29" W.

Outfall 003 – Capped. Currently no discharge from this outfall.

**Outfall 004N** – Overflows from the north settling pond (PND-005N). The north settling pond receives wastewater from the Nimbus Fish Hatchery raceways and Spawning deck. In addition, when maintaining the south settling pond, American River Hatchery wastewater that is typically sent to the south settling pond is directed to the north settling pond, and discharged through outfall 004N. Latitude: 38° 38' 01.47" N; and Longitude: 121° 13' 48.52" W.

**Outfall 004S** – Overflows from the south settling pond (PND-005S). The south settling pond receives wastewater from the American River Hatchery, including rearing ponds, hatchery building, nursery ponds, and fish disease laboratory. In addition, when maintaining the north settling pond, wastewater from the Nimbus Fish Hatchery raceways and Spawning deck that is typically sent to the north settling pond is directed to the south settling pond, and discharged through outfall 004S. Latitude 38° 37' 59.70" N; and Longitude: 121° 13' 46.90" W

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

### **EFFLUENT LIMITATIONS**

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the CAAP General Order. The discharge exhibits reasonable potential for formaldehyde, chlorine, and total suspended solids. There is no reasonable potential for copper. The following effluent limitations are applicable to this discharge and are contained in Section 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<br>Limitation | Maximum Daily Effluent<br>Limitation |
|--------------|-------|--|--------------------------------------|
| Formaldehyde | mg/L  | 0.65 <sup>1</sup>                      | 1.3 <sup>1</sup>                     |
| Chlorine     | mg/L  |  | 0.018                                |

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**

The discharge to the American River 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. The discharge from all outfalls at the Nimbus Fish and American River Hatcheries shall not exceed a daily average flow of 70 mgd.
- 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). The CIWQS website will provide directions for SMR submittal in the event there will be service interruption for electronic submittal.
- 3. 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.
- 4. 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 the CAAP General Order will remain authorized to discharge under administratively continued permit conditions.

5. In accordance with section VII.C.3.a of the CAAP General Order, on 9 April 2015, the Discharger submitted a Best Management Practices (BMP) Plan and a certification stating that the BMP Plan was developed by the Nimbus Fish Hatchery and the American River Hatchery. The Discharger included in the BMP Plan a description of how they will 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 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 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.

### COMMUNICATION

All monitoring report submittals, notification of non-compliance, and questions regarding compliance and enforcement shall be directed to Lucio Orellana of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Mr. Orellana can be reached at (916) 464-4660 or Lucio.Orellana@waterboards.ca.gov.

Questions regarding the permitting aspects of this CAAP General Order, and written notification for termination of coverage under the CAAP General Order, shall be directed to Dania Jimmerson of the Central Valley Water Board's NPDES Permitting Unit. Ms. Jimmerson can be reached at (916) 464 4742 or Dania.Jimmerson@waterboards.ca.gov.

Please note that we have transitioned to a paperless office. Therefore, all documents other than monitoring reports shall be converted to a searchable Portable Document Format (PDF) and submitted by email to centralvalleysacramento@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." To ensure that your submittals are routed to the appropriate staff as quickly as possible, the following information block should be included in emails used to transmit documents.

| Regulatory Program    | NPDES   |
|-----------------------|---|
| Unit                  | Compliance  |
| Regulatory Party Name | California Department of Fish and Wildlife and US Bureau of Reclamation |
| Name of Facility      | Nimbus Salmon and Steelhead Hatchery and American River Trout Hatchery  |
| County                | Sacramento  |
| CIWQS Place ID        | 244354  |

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 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 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 Adam Laputz for

Pamela C. Creedon Executive Officer

Enclosures (6): 1) Enclosure A – Administrative Information

2) Enclosure B – Location Map

3) Enclosure C – Flow Schematic

4) Enclosure D – Monitoring and Reporting Program

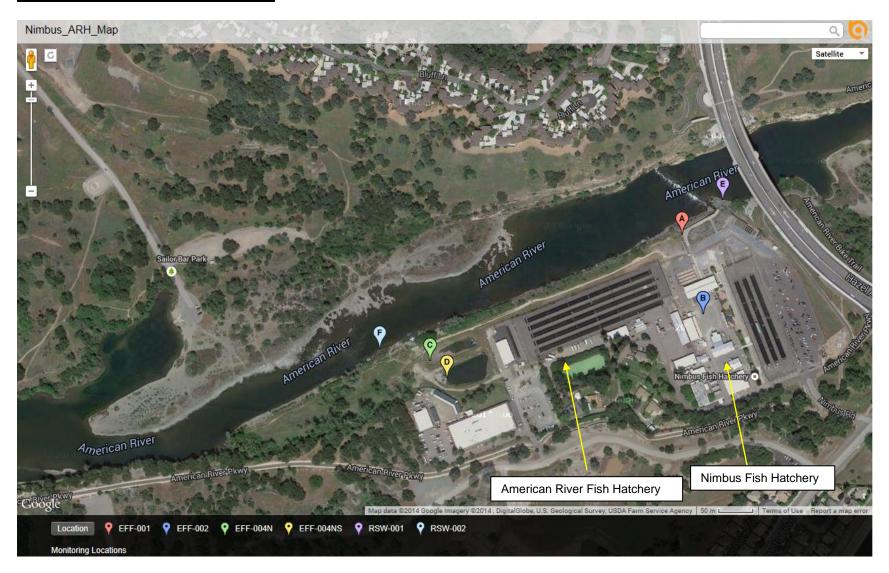
5) Enclosure E – Approved Aquaculture Drug and Chemical Use

cc: David Smith, U.S. EPA, Region IX, San Francisco (via email only)
Phil Isorena, State Water Resources Control Board, Sacramento (via email only)
Terry Jackson, California Department of Fish and Wildlife, Rancho Cordova

# **ENCLOSURE A – ADMINISTRATIVE INFORMATION**

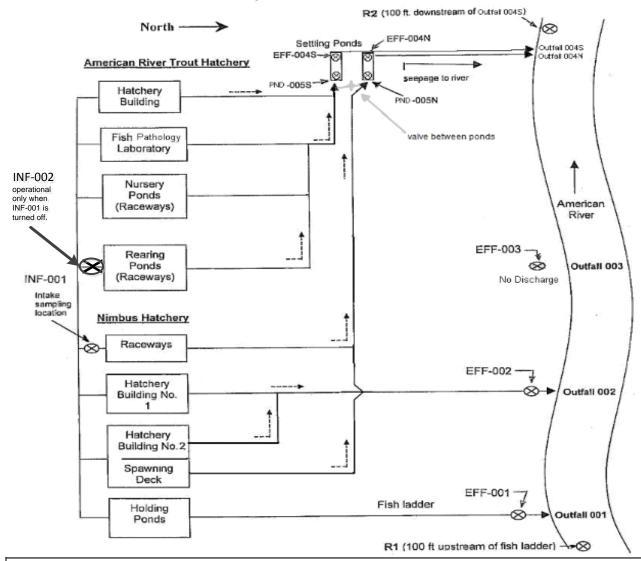
| Name of Facility                             | Nimbus Salmon and Steelhead Hatchery and American River Trout Hatchery  |  |  |
|--|---|--|--|
| Type of Facility                             | Cold Water Concentrated Aquatic Animal Production Facility, SIC Code 0921   |  |  |
| WDID   | 5A340801001   |  |  |
| General Order NOA Enrollee<br>Number         | R5-2014-0161-019-01   |  |  |
| Discharger                                   | California Department of Fish and Wildlife  |  |  |
| Facility Address                             | 2001 Nimbus Road<br>Rancho Cordova, CA 95670  |  |  |
| Land Owner (Address)                         | US Bureau of Reclamation<br>7794 Folsom dam Road (CC413)<br>Folsom, CA 95630 (Contact Person: Drew Lessard)<br>(916-989-7173)     |  |  |
| Facility Contact, Title and Phone            | Paula Hoover (Nimbus Operator/Manager) 916-358-2821,and Dale Burkett (American River Fish Hatchery Operator/Manager) 916-358-2865 |  |  |
| Authorized Person to Sign and Submit Reports | Anna Kastner Fish Hatchery Manager II   |  |  |
| Mailing Address                              | 2001 Nimbus Road<br>Rancho Cordova, CA 95670  |  |  |
| Billing Address                              | 2001 Nimbus Road.<br>Rancho Cordova, CA 95670   |  |  |
| Total Weight Produced (Annual)               | 640,000 lbs (both hatcheries combined)  |  |  |
| Major or Minor Facility                      | Minor   |  |  |
| Threat to Water Quality                      | 2   |  |  |
| Complexity                                   | В   |  |  |
| Facility Permitted Flow                      | 70 million gallons per day (mgd)  |  |  |
| Watershed                                    | Sacramento River Basin  |  |  |
| Receiving Water                              | American River  |  |  |
| Receiving Water Type                         | Inland surface water  |  |  |

# **ENCLOSURE B – LOCATION MAP**



## **ENCLOSURE C - FLOW SCHEMATIC**

### Water Flow Schematic and Outfall Summary for Nimbus Salmon & Steelhead Hatchery and American River Trout Hatchery





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

### **Outfall Summary**

- 001 Nimbus Fish Ladder (holding pond overflow; fresh water, if needed)
- 002 Nimbus Hatchery Buildings (water used for egg hatching and incubation. November through July)
- 003 No Discharge
- 004N Overflows from the north settling pond (PND-005N), which receives wastewater from the Nimbus Fish Hatchery
- 004S Overflows from the south settling pond (PND-005S), which receives wastewater from the American River Hatchery

## **ENCLOSURE D – MONITORING AND REPORTING PROGRAM**

This Facility is in the category of production of greater than 100,000 pounds of aquatic animals produced per year. The Discharger is required to comply with all the Monitoring and Reporting Requirements contained in Attachment C of the CAAP General Order for facilities with production greater than 100,000 pounds of aquatic animals per year, and as required in Enclosure D in this NOA. A summary of the monitoring requirements is provided below:

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

**Table D-1. Monitoring Locations** 

| Discharge<br>Point Name | Monitoring<br>Location<br>Name <sup>1</sup> | Monitoring Location Description   |
|-------------------------|---|---|
|                         | INF-001                                     | Lake Natoma Intake. Head box at Nimbus Hatchery where influent sample can be collected prior to entering the Nimbus Fish and American River Hatcheries.  [Latitude: 38° 38' 00.59" N; Longitude: 121° 13' 27.56" W]   |
|                         | INF-002                                     | American River Hatchery. Head box at American River Hatchery operational only when INF-001 is turned off. [Latitude: 38° 38' 00.85" N; Longitude: 121° 13' 41.61" W]  |
| Outfall 001             | EFF-001                                     | Effluent wastewater from the <b>Nimbus Fish Ladder</b> and <b>Holding Ponds</b> prior to discharge to the American River. EFF-001 is located within the fish ladder. [Latitude: 38° 38' 06.08" N; Longitude: 121° 13' 33.53" W]   |
| Outfall 002             | EFF-002                                     | Effluent wastewater from the <b>Nimbus Fish Hatchery Buildings</b> during egg incubation (November through July) prior to discharge to the American River. EFF-002 is located at a manhole west of the hatchery buildings. [Latitude: 38° 38' 02.55" N; Longitude: 121° 13' 32.32" W]   |
| Outfall 003             | EFF-003                                     | Capped and currently no discharge from this outfall.  |
| Outfall 004N            | EFF-004N                                    | Effluent wastewater overflow from the north settling pond containing flow from <b>Nimbus Fish Hatchery raceways and Spawning deck</b> prior to discharge to the American River. May also contain flow from the American River Hatchery when maintaining the south settling pond. EFF-004N is located at the overflow structure from the north settling pond.  [Latitude: 38° 38' 00.46" N; Longitude: 121° 13' 47.87" W]          |
| Outfall 004S            | EFF-004S                                    | Effluent wastewater overflow flow from the south settling pond containing flow from the <b>American River Hatchery</b> prior to discharge to the American River. May also contain flow from the Nimbus Fish Hatchery raceways and Spawning deck when maintaining the north settling pond. EFF-004S is located at the overflow structure from the south settling pond.  [Latitude: 38° 37' 59.71" N; Longitude: 121° 13' 46.88" W] |
|                         | RSW-001                                     | 100 feet <b>upstream</b> from Outfall 001 in the American River [Latitude: 38° 38' 07.60" N; Longitude: 121° 13' 31.23" W]  |
|                         | RSW-002                                     | 100 feet <b>downstream</b> of seepage from Settling Ponds in the American River [Latitude: 38° 38' 01.01" N; Longitude: 121° 13' 50.73" W]  |

<sup>&</sup>lt;sup>1</sup> All GPS coordinates correspond to the Monitoring Locations.

**B. Influent Monitoring Requirements**. When discharging at Outfall(s) 001, 002, 004N, and/or 004S, the Discharger shall monitor the influent to the Facility at Monitoring Location INF-001 or INF-002 as follows:

Table D-2. Influent Monitoring

| Parameter                      | Units    | Sample<br>Type | Minimum Sampling<br>Frequency | Required Analytical<br>Test Method |
|--------------------------------|----------|----------------|-------------------------------|------------------------------------|
| рН                             | S.U.     | Grab           | 1/month <sup>2</sup>          | 1                                  |
| Electrical Conductivity @ 25°C | µmhos/cm | Grab           | 1/month <sup>2</sup>          | 1                                  |
| Total Suspended Solids         | mg/L     | Grab           | 1/month <sup>2</sup>          | 1                                  |

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

**C.** Effluent Monitoring Requirements. When discharging at Outfall(s) 001, 002, 004N, and/or 004S, the Discharger shall monitor the effluent at corresponding Monitoring Locations EFF-001, EFF-002, EFF-004N, and/or EFF-004S as follows:

**Table D-3. Effluent Monitoring** 

| Parameter                         | Units    | Sample<br>Type     | Minimum Sampling<br>Frequency                   | Required<br>Analytical Test<br>Method |
|-----------------------------------|----------|--------------------|---|---------------------------------------|
| Flow                              | cfs      | Meter              | 1/month   |                                       |
| Total Suspended Solids (TSS)      | mg/L     | Grab               | 1/month   | 1                                     |
| Net TSS (effluent minus influent) | mg/L     | Net<br>Calculation | 1/month   |                                       |
| Turbidity                         | NTU      | Grab               | 1/month   | 1                                     |
| рН                                | S.U.     | Grab               | 1/month   | 1                                     |
| Electrical Conductivity @ 25°C    | µmhos/cm | Grab               | 1/month <sup>2,3</sup>                          | 1                                     |
| Formaldehyde                      | mg/L     | Grab⁴              | 1/month during Formalin<br>use <sup>4,3</sup>   | 1                                     |
| Chlorine <sup>5</sup>             | mg/L     | Grab               | 1/quarter during chlorine<br>use <sup>5,3</sup> | 1                                     |

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

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

Samples shall be collected monthly. If sodium chloride is used, the monthly monitoring of EC shall be conducted during treatment.

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.

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.

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

**D. Receiving Water Monitoring Requirements**. When discharging at Outfall(s) 001, 002, 004N, and/or 004S, and/or when discharging to the settling ponds, receiving water samples shall be collected from RSW-001 and RSW-002 as follows.

Table D-4. Receiving Water Monitoring

| Parameter                      | Units        | Sample Type | Minimum Sampling<br>Frequency | Required Analytical<br>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/<br>cm | Grab        | 1/month                       | 1                                  |

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

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 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 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 in accordance with Section IX.A of the CAAP General Order, describing all aquaculture drugs or chemicals used at the Facility. The report shall be submitted with the quarterly self-monitoring reports.
- **G.** Annual Feeding and Production Report. The Discharger shall develop an annual feeding and production report in accordance with Section IX.B of the CAAP General Order. The report shall be submitted **28 February, annually**, and include 1) monthly food usage in pounds for each calendar month for the previous year, and 2) annual production of aquatic animals in pounds per year for the previous year.

Enclosure D – Monitoring and Reporting Program Nimbus and American River Fish Hatcheries

H. Priority Pollutant Metals Monitoring. When discharging at outfalls 004N and 004S, the Discharger shall monitor the effluent at EFF-004N and EFF-004S, and the upstream receiving water at RSW-001 for the metals listed in Table G-1 of the CAAP General Order, once during the term of Order R5-2014-0161. In the event that there is no discharge from outfall 004S, a representative sample of the processes from Nimbus Hatchery shall be collected at the influent of Pond 005N. 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 Web site (http://www.waterboards.ca.gov/ciwqs/index.html), within 60 days of the final sampling event.

### REPORTING REQUIREMENTS

Monitoring in accordance with the CAAP General Order shall begin on 1 January 2015. Self-monitoring reports (SMRs) are required to be submitted quarterly and annually. The first SMR required under the renewed CAAP General Order is due 1 May 2015, and shall include monitoring conducted from 1 January through 31 March 2015. 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<br>Frequency | Monitoring Period Begins On | Monitoring Period  | SMR Due Date  |
|-----------------------|-----------------------------|--|---|
| 1/month               | 1 January 2015              | First day of calendar month<br>through last day of calendar<br>month | 1 May (1 Jan – 31 Mar)<br>1 Aug (1 Apr – 30 Jun)<br>1 Nov (1 Jul – 30 Sep)<br>1 Feb of following year<br>(1 Oct – 31 Dec) |
| 1/year                | 1 January 2015              | January 1 through December 31  | 1 Feb of following year   |

In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, 1-hour average effluent limitation, or receiving water limitation contained in this Order, the Discharger shall notify the Central Valley Water Board by telephone within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within 5 days, unless the Central Valley Water Board waives confirmation. The written notification shall include the information required by the Standard Provision contained in Attachment B section V.E.1. [40 C.F.R. 122.41(I)(6)(i)].

# 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.

| Drug or Chemical                                  | Maximum Daily<br>Amount Used                          | Method of<br>Application   | Maximum Amount in Effluent                             |  |
|---|---|--|--|--|
| Amoxicillin trihydrate                            | 40 mg/kg Adult fish                                   | Injected intraperitonealy  | None   |  |
| Carbon Dioxide                                    | Variable  | Injected into tank   | Unknown  |  |
| Chloramine T                                      | 10-20 ppm for 1 hr.                                   | Bath   | 0.55-1.1 ppm   |  |
| ERM vaccine (Enteric Redmouth Bacterin)           | 40L/4,000 lbs   | Immersion  | Negligible   |  |
| Erythromycin                                      | 40 mg/kg Adult fish<br>100 mg/kg of fish              | Injected intraperitonealy Used in fish food                          | Not in use at this time Trace amount from uneaten food |  |
| Florfenicol                                       | 15 mg/kg of fish/day/10days                           | Additive to feed   | Negligible   |  |
| Formalin  | 122 oz  | Drip for 8 hrs, 8.7 oz<br>per tank                                   | 1.3 ppm  |  |
| Hydrogen Peroxide                                 | 165 Gal (100ppm)                                      | 100 ppm Drip 1hr in 1 raceway  | 1.4 mg/L   |  |
| Iodine (PVP Iodine)                               | 250 oz  | 20 min bath: 4<br>oz/bucket, 4 buckets<br>at a time @ 20min<br>flush | 0.32 mg/L  |  |
| Oxytetracycline                                   | 3.75 g/100lbs of fish/day/for 10days                  | Additive to feed   | Negligible   |  |
| Oxytetracycline HCL (Oxytetracycline)             | 100 mg/L@20 tanks                                     | 6-8 hr bath  | 1.9 mg/L   |  |
| Penicillin G                                      | 60 mg/L@20 tanks                                      | 6-8 hr bath  | 1.1 mg/L   |  |
| Potassium Permanganate                            | 24 lbs  | 2 lb (100ppm) Flush 1<br>hr in 1 raceway                             | 0.11 mg/L  |  |
| Romet (Sulfadimethoxine-<br>ormetoprim)(Romet-30) | 50 mg/kg of fish/day                                  | Additive to feed   | Trace amount from uneaten food                         |  |
| SLICE (emamectin<br>benzoate;0.2%<br>aquaculture  | 50 ug emamectin<br>benzoate/Kg of fish<br>biomass/day | Medicated feed   | Not in use at this time                                |  |
| Sodium Bicarbonate                                | Variable  | Immersion  | Unknown  |  |
| Sodium Chloride                                   | 300 mg/L  | Flush  | 50 mg/L  |  |
| Tricaine Methanesulfonate (MS-222)                | 3 mg/L@4 tanks  | Immersion  | 0.29 mg/L  |  |