



## Central Valley Regional Water Quality Control Board

26 August 2021

**CERTIFIED MAIL**  
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**NOTICE OF APPLICABILITY; GENERAL WASTE DISCHARGE REQUIREMENTS FOR COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION (CAAP) FACILITY DISCHARGES TO SURFACE WATERS; ORDER R5-2019-0079 (CAAP GENERAL ORDER, NPDES NO. CAG135001); CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 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 (Discharger) on 10 July 2015 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) which are collectively referred to as 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 20 June 2019 to continue coverage for the Facility under the CAAP General Order. Effective **1 September 2021**, this NOA provides continued coverage for the Facility under the CAAP General Order to discharge to the American River, superseding the previous NOA issued 10 July 2015 (R5-2014-0161-019-01). CAAP General Order R5-2019-0079 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001 are assigned for this Facility. Please reference your CAAP General Order number **R5-2019-0079-005** in all correspondence and submitted documents. The following enclosures are included as part of this NOA:

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

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

The enclosed [CAAP General Order](#) ([http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders)) 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 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 by 10 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 (15.8 ft 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 predicted 5-year maximum annual harvestable fish production (Table 1). The Discharger reported the maximum monthly feed use of 19,000 pounds and annual average feed use of 120,000 pounds for the Nimbus Hatchery. The Discharger reported the maximum monthly feed use of 88,000 pounds and annual average feed use of 650,000 pounds for the American River Fish Hatchery.

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

Hatchery	Species	5-Year Maximum Annual Harvestable Maximum Hatchery Aquatic Animal Production (lbs)
Nimbus Hatchery	American River Winter run Steel Head	130,000
	Fall run Chinook Salmon	70,000
American River Hatchery	Rainbow trout	300,000
	Lahontan Cutthroat Trout	140,000
	Kokanee Salmon	850
	Brown Trout	5,000

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 mgd.

Latitude: 38° 38' 07.00" N and Longitude: 121° 13' 13.27" 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 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.

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

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

## III. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

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

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

**Table 2. Effluent Limitations**

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

Table 2 Notes:

Compliance with the effluent limitations for formaldehyde may be evaluated using an estimated effluent concentration in lieu of effluent monitoring data. The estimated effluent concentration shall be calculated as described in the CAAP General Order (Section IX.A of

Attachment C, Monitoring and Reporting Program).

2. The Discharger shall minimize the discharge of Total Suspended Solids through the implementation of the best management practices established in Special Provision VII.C.3 of the CAAP General Order.

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

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

## **IV. RECEIVING WATER LIMITATIONS**

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

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

- Un-ionized Ammonia (VI.A.1) – Not Applicable
- Bacteria (VI.A.2);
- Biostimulatory Substances (VI.A.3);
- Chemical Constituents (VI.A.4);
- Color (VI.A.5);
- Dissolved Oxygen (VI.A.6.a and VI.A.6.b) – Per CAAP General Order Section VI.A.6.b., the dissolved oxygen concentration in the American River shall not be reduced below 7.0 mg/L;
- Electrical Conductivity (VI.A.7) – Not Applicable;
- Floating Material (VI.A.8);
- Oil and Grease (VI.A.9);
- pH (VI.A.10);
- Pesticides (VI.A.11.a, b, c, d, e, g);
- Radioactivity (VI.A.12);
- Suspended Sediments (VI.A.13);
- Settleable Substances (VI.A.14);
- Suspended Material (VI.A.15);
- Taste and Odors (VI.A.16);
- Temperature (VI.A.17);
- Toxicity (VI.A.19); 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 2 below apply to this Facility:

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

<b>Special Provision</b>	<b>CAAP General Order Section Reference</b>
Reopener Provisions	Section VII.C.1
Drug and Other Chemical Use Reporting	Section VII.C.2
Best Management Practices and Pollution Prevention	Section VII.C.3
Waste Disposal	Section VII.C.4
Special Provisions for Municipal Facilities (POTWs Only).	Section VII.C.5 - Not Applicable
Other Special Provisions.	Section VII.C.6 - Not Applicable
Compliance Schedules.	Section VII.C.7 – Not Applicable

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

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

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

## VII. OTHER REQUIREMENTS

- A. The discharge from the Facility shall not exceed a monthly average flow of 70 mgd.
- B. The CAAP General Order expires on **31 January 2025**. Only those CAAP facilities authorized to discharge under the expiring Order and who submit a Notice of Intent at least **one year** prior to the expiration date of the CAAP General Order (unless the Executive Officer grants permission for a later date) will remain authorized to discharge under administratively continued permit conditions.
- C. Aquaculture activities defined in 40 C.F.R. 122.25(b) will be subject to the annual fee for general NPDES permits and *de minimus* discharges that are regulated by individual or general NPDES permits (California Code of Regulations Section 2200(b)(9) for Category 3 discharges).
- D. In accordance with section VII.C.3.a of the CAAP General Order, the Discharger shall certify within 90 days from the issuance of this NOA that a Best Management Practices (BMP) Plan has been developed and is being implemented. To satisfy this requirement the Discharger shall submit a letter to the Central Valley Water Board certifying compliance with the BMP Plan requirements by **25 November 2021**. The Discharger can develop a new BMP Plan, or an existing BMP Plan may be modified for use under this requirement. The Discharger shall develop and implement the BMP Plan to prevent or minimize the generation and discharge of wastes and pollutants to waters of the United States and waters of the State and ensure disposal or land application of wastes is in compliance with applicable solid waste disposal regulations. The BMP Plan shall include practices used during salt treatments at the Facility to minimize salinity discharges to the receiving water. The Discharger shall review the BMP Plan annually and must amend the BMP Plan whenever there is a change in the Facility or in the operation of the Facility which materially increases the generation of pollutants or their release or potential release to surface waters.

## VIII. ENFORCEMENT

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

## IX. COMMUNICATION

All notification of non-compliance and questions regarding compliance and enforcement shall be directed to Paul Wadding of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Mr. Wadding can be reached at (916) 464-4826 or by email at [paul.wadding@waterboards.ca.gov](mailto:paul.wadding@waterboards.ca.gov).

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

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

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

- Attention: NPDES Compliance and Enforcement Section
- Discharger: California Department of Fish and Wildlife and United States Bureau of Reclamation
- Facility: Nimbus Salmon and Steelhead Hatchery and American River Trout Hatchery
- County: Sacramento County
- CIWQS Place ID: 244354

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 filing petitions](#)



Collin Purdy, CDFW  
Drew Lessard, USBR  
Nimbus and American River Fish Hatcheries

26 August 2021

([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)) may be found on the internet or will be provided upon request.



For Patrick Pulupa,  
Executive Officer

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

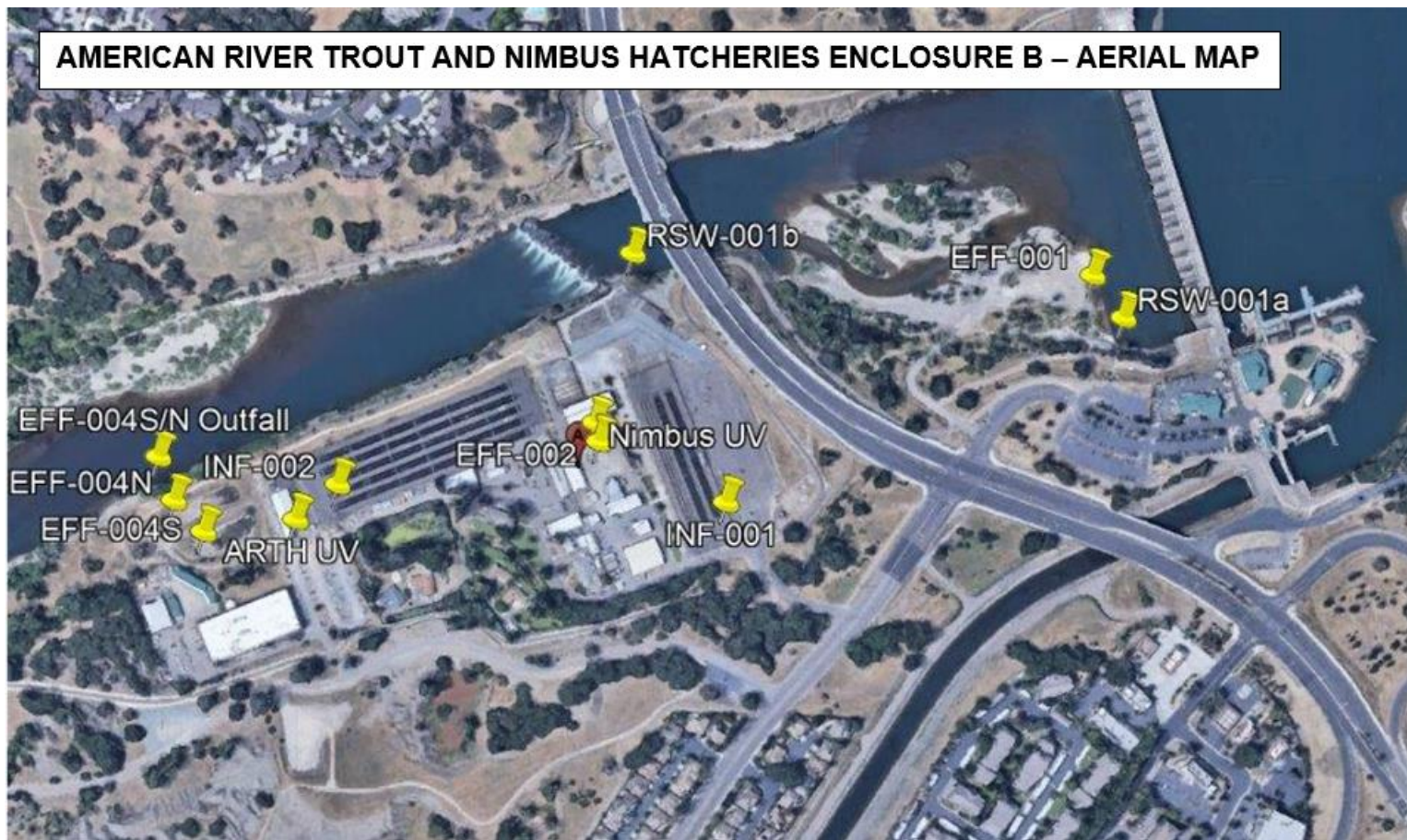
cc's: Elizabeth Sablad, U.S.EPA, Region IX, San Francisco (via email only)  
Peter Kozelka U.S.EPA, Region IX, San Francisco (via email only)  
Division of Water Quality, State Water Board, Sacramento (via email only)  
Sarah Torres, PG Environmental (via email at [icis-npdes@pgeenv.com](mailto:icis-npdes@pgeenv.com))

Enclosure A – Administrative Information  
 Nimbus and American River Hatcheries

**ENCLOSURE A - ADMINISTRATIVE INFORMATION**

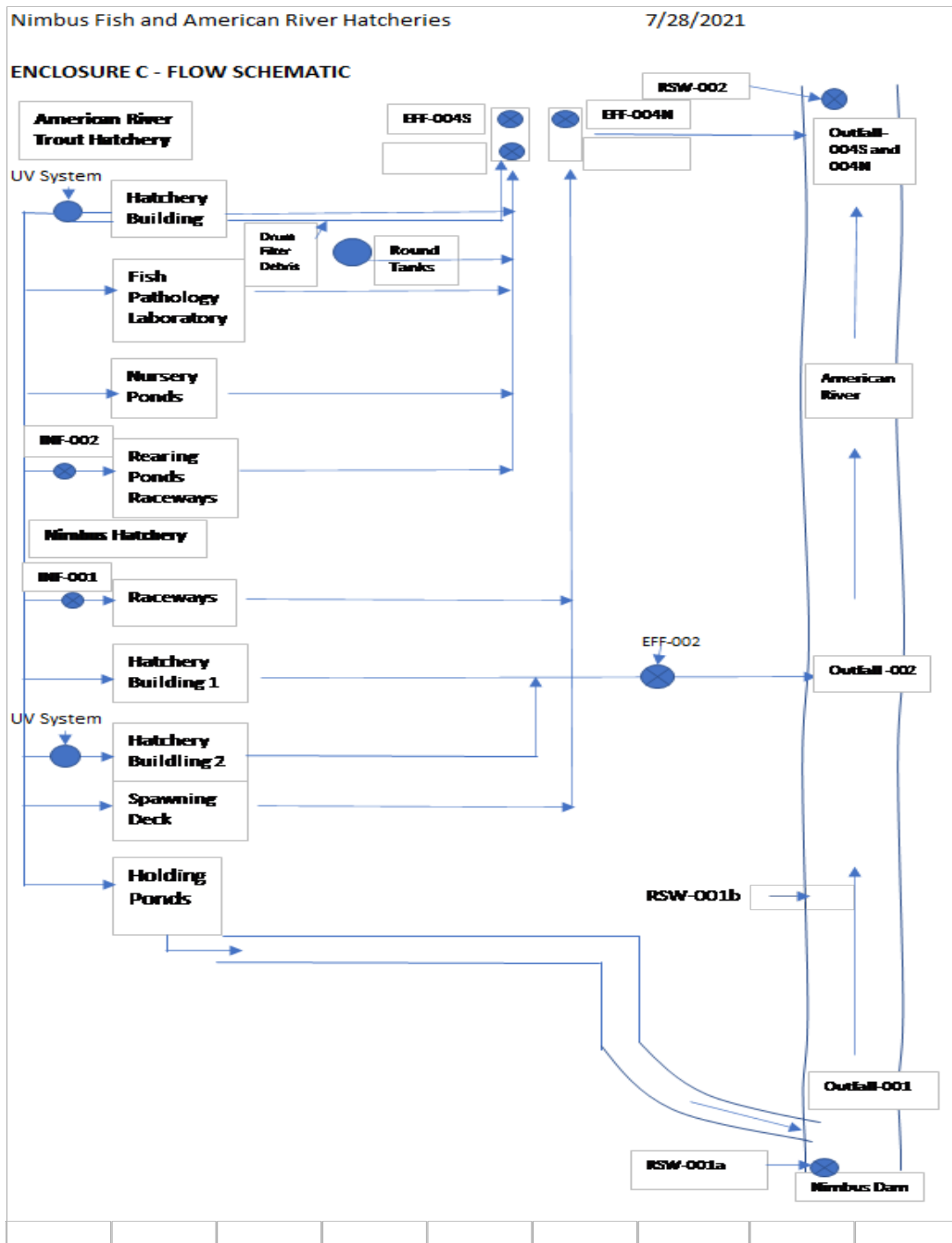
<b>Waste Discharge ID:</b>	5A340801001
<b>CIWQS Facility Place ID:</b>	244354
<b>General Order NOA Enrollee Number:</b>	R5-2019-0079-005
<b>Discharger:</b>	California Department of Fish and Wildlife (CDFW) and United States Bureau of Reclamation (USBR)
<b>Name of Facility:</b>	Nimbus Fish Hatchery and American River Trout Hatchery
<b>Facility Address:</b>	2001 Nimbus Road, Rancho Cordova 95670
<b>Facility County:</b>	Sacramento County
<b>Facility Contact, Title and Phone Number:</b>	Paula Hoover, Nimbus Fish Hatchery Operator/Manager: 916-358-2821 Dale Burkett, American River Fish Hatchery Operator/Manager: 916-358-2865
<b>Landowner:</b>	USBR – Nimbus Fish Hatchery CDFW – American River Fish Hatchery
<b>Landowner City, State Zip:</b>	USBR: 7794 Folsom Dam Road (CC-100), Folsom, CA 95630 CDFW: 1701 Nimbus Road, Rancho Cordova, CA 95670
<b>Landowner Contact and Phone Number:</b>	Drew Lessard, USBR (916-989-7173) Kevin Thomas, CDFW (916-358-2898)
<b>Authorized Person to Sign and Submit Reports:</b>	Jason Julienne, Senior Environmental Scientist Supervisor
<b>Mailing Address:</b>	2001 Nimbus Road, Rancho Cordova, CA 95670
<b>Billing Address:</b>	Same
<b>Total Weight Produced (Year one through five):</b>	640,000 lbs (both hatcheries combined)
<b>Type of Facility:</b>	CAAP Facility, SIC Code 0921
<b>Major or Minor Facility:</b>	Minor
<b>Threat to Water Quality:</b>	2
<b>Complexity:</b>	B
<b>Pretreatment Program:</b>	No
<b>Recycling Requirements:</b>	No
<b>Facility Permitted Flow:</b>	70 million gallons per day (mgd)
<b>Watershed:</b>	Sacramento River Basin
<b>Receiving Water:</b>	American River
<b>Receiving Water Type:</b>	Inland surface water

**ENCLOSURE B – LOCATION MAP**



Enclosure C – Flow Schematic  
Nimbus and American River Hatcheries

**ENCLOSURE C – FLOW SCHEMATIC**



**ENCLOSURE D – MONITORING AND REPORTING PROGRAM**

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

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

**I. GENERAL MONITORING PROVISIONS**

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

**II. MONITORING LOCATIONS**

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

**Table D-1. Monitoring Locations**

<b>Discharge Point Name</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
	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 Nimbus Fish Ladder and Holding Ponds prior to discharge to the American River. EFF-001 is located within the fish ladder. [Latitude: 38° 38' 07.00" N; Longitude: 121° 13' 13.27" W]
Outfall 002	EFF-002	Effluent wastewater from the Nimbus Fish Hatchery Buildings 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' 05.90" N; Longitude: 121° 13' 35.29" W]

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

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Outfall 004N	EFF-004N	Effluent wastewater flow from Nimbus raceways. PND-005N may spill to the American River via Outfall 004N when performing maintenance on the South percolation pond (PND- 005S) and flows are temporarily diverted to North percolation pond, which may overflow, continuous, 24 hours/day for 7days at 48 mgd. [Latitude: 38° 38' 01.47" N; Longitude: 121° 13' 48.52" W]
Outfall 004S	EFF-004S	Effluent wastewater flow from American River Hatchery. PND- 005S may spill to the American River via Outfall 004S when performing maintenance on the North percolation pond (PND- 005N) and flows are temporarily diverted to South percolation pond, which may overflow, continuous, 24 hours/day for 7days at 48 mgd. [Latitude: 38° 37' 59.70" N; Longitude: 121° 13'46.90" W]
	RSW-001a	When discharging from Outfall-001: 50 feet upstream from Outfall 001 in the American River [Latitude: 38° 38' 05.77" N; Longitude: 121° 13' 11.48" W]
	RSW-001b	When not discharging from Outfall-001: Old fish ladder location [Latitude: 38° 38' 07.60" N; Longitude: 121° 13' 31.23" W]
	RSW-002	100 feet downstream of seepage from Settling Ponds in the American River [Latitude: 38° 38' 01.01" N; Longitude: 121° 13' 50.73" W]

**III. INFLUENT MONITORING REQUIREMENTS**

A. 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 specified in Table D-2 below. Samples shall be collected at approximately the sametime as effluent 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

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

Parameter	Units	Sample Type	Minimum Sampling Frequency
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.**

**A.** 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 EFF-004S as specified in Table D-3 below. Effluent samples shall be representative of the volume and quality of the discharge. Effluent samples shall be collected during or immediately following raceway cleaning or administration of drug or chemical treatments and must be representative of the volume and quality of the discharge at the time when representative levels of solids, drugs, chemicals, or other pollutants are present in the discharge. Time of collection of samples shall be recorded.

**Table D-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	cfs	Meter	1/month
Total Suspended Solids (TSS)	mg/L	Grab	1/month
Net TSS (effluent minus influent)	mg/L	Net Calculation	1/month
Turbidity	NTU	Grab	1/month
pH	S.U.	Grab	1/month

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

Parameter	Units	Sample Type	Minimum Sampling Frequency
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/month
Formaldehyde	mg/L	Grab	1/month during Formalin 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. pH and formaldehyde shall be monitored using analytical methods with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).
4. Estimated concentrations of formaldehyde may be reported in lieu of analytical monitoring during formaldehyde use. If calculations are reported then formaldehyde concentrations should be reported daily to match the concentrations reported in the Monthly Chemical Use Report (Attachment F). See Section IX.A for calculation procedures. If analytical monitoring is conducted, when formaldehyde is added to the waters of the Facility, formaldehyde concentration shall be measured during time of peak discharge of formaldehyde, at least one hour after start of treatment.
5. Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.018 mg/L. Per Section IX.A, the discharger shall report all aquaculture drug and chemical use as part of the Monthly Drug and Chemical Use Report that is submitted on a quarterly basis.

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

**V. LAND DISCHARGE MONITORING REQUIREMENTS.**

**A.** Septic Tank/Leachfields. The monitoring requirements contained in CAAP General Order, Attachment C, Section VI.A are applicable to this Facility.



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

B. Sewage Lagoons. Not applicable.

**VI. RECEIVING WATER MONITORING REQUIREMENTS.**

A. Sampling Locations. When discharging at Outfall(s) 001, 002, 004N, and/or 004S, and/or discharging to the settling ponds, receiving water samples shall be collected from Monitoring Locations RSW-001a or RSW-001b, and RSW-002 as follows:

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

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L	Grab	1/month
Temperature	Degrees C	Grab	1/month
Turbidity	NTU	Grab	1/month
pH	S.U.	Grab	1/month
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/month

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

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

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

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

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

**VII. OTHER MONITORING REQUIREMENTS.**

A. Monthly Drug and Chemical Use Report. The Discharger shall develop a monthly drug and chemical use report in accordance with CAAP General Order, Attachment C, Section IX.A

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

describing all aquaculture drugs or chemicals used at the Facility. The drug and chemical use 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-001a) for the metals listed in Table G-1 of the CAAP General Order once during the term of the CAAP General Order. **The monitoring shall occur no later than 1 January 2023.** The Discharger shall electronically submit the priority pollutants metals monitoring results using the State Water Board's [California Integrated Water Quality System](#) (CIWQS) Program Web site ([http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs](http://www.waterboards.ca.gov/water_issues/programs/ciwqs)) **within 60 days of the final sampling event.** Refer to CAAP General Order, Attachment G for the specific monitoring requirements. Constituents shall be monitored using analytical methods with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).
- C. Annual Feeding and Production Report.** The Discharger shall develop an annual feeding and production report in accordance with CAAP General Order, Attachment C, Section IX.C. The annual report shall be submitted on **1 February, annually**, and included the following information:

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

## VIII. REPORTING REQUIREMENTS

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

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

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
1/month	1 September 2021	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 September 2021	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 September 2021	January 1 through December 31	1 Feb of following year

**A. Other Reports**

**1. Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report by **25 October 2021**. 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,

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

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**

<b>Drug or Chemical</b>	<b>Maximum Daily Amount Used</b>	<b>Method of Application</b>	<b>Maximum Amount in Effluent</b>
Acetic Acid	335-500 ppm 500-2,000 ppm	Flush Bath	Not in use at this time
Amoxicillin Trihydrate	40 mg/kg of adult fish	Injected intraperitoneally	None
Carbon Dioxide	Variable	Injected into tank	Variable
Chloramine T	10-20 ppm for 1 hr	Bath	10-20 ppm
Chorulon® - Chronic Gonadotropin	50-1816 IU/lb	Intramuscular injection	None/ND
Copper Sulfate	0.5 lbs	Flush	No longer in use at Nimbus Hatchery
Epsom Salt (Magnesium Sulfate)		Feed	Not in use at this time
Erythromycin	40 mg/kg of adult fish  100 mg/kg of fish	Injected intraperitoneally  Used in fish food	Not in use at this time.  Trace amount from uneaten food.
ERM vaccine	22L/4,400 lbs of fish	Immersion	Negligible
Florfenicol	15 mg/kg of fish/day/10 days	Additive to feed	Negligible

Enclosure E – Approved Aquaculture Drugs and Chemicals Use  
 Nimbus and American River Fish Hatcheries

<b>Drug or Chemical</b>	<b>Maximum Daily Amount Used</b>	<b>Method of Application</b>	<b>Maximum Amount in Effluent</b>
Formalin (37% Formaldehyde solution)	122 oz	Drip for 8 hrs (raceways)	1.3 ppm
Hydrogen Peroxide (35%)	100 ppm	100 ppm Drip 1 hour (raceways)	100 ppm
MS-222/ tricaine methanesulfonate (Finquel®, Tricaine-S®)	3 mg/L	Bath	3 mg/L
Ovaplant® Salmon Gonadotropin-releasing hormone analogue (sGnRHa)		Dorsal injection pellet-implant	None/ND
Oxytetracycline dihydrate (Terramycin® 200)		Additive to feed	Negligible/ND
Oxytetracycline HCL	100 mg/L	6-8 hr bath	100mg/L
Penicillin G	97 mg/L	6-8 hr bath	97 mg/L
Potassium Permanganate (Cairox)	2 mg/L	Flush in raceway	NA
PVP Iodine	100 mg/L	20 min bath	100 mg/L
SLICE (emamectin benzoate; 0.2% aquaculture premix)	3.75g/100 lbs of fish/day/for 10 days	Additive to feed	Negligible
Sodium Bicarbonate	Variable	Bath	Variable

Enclosure E – Approved Aquaculture Drugs and Chemicals Use  
 Nimbus and American River Fish Hatcheries

<b>Drug or Chemical</b>	<b>Maximum Daily Amount Used</b>	<b>Method of Application</b>	<b>Maximum Amount in Effluent</b>
Sodium Chloride	300 mg/L	Flush	300 mg/L (EFF-002)
Sulfadimethoxine- ormetoprim (Romet- 30®)	50 mg/kg of fish/ day	Additive to feed	
Thiamine Mononitrate	Fry- 2,000 ppm  Egg treatment – 4,500 ppm at treatment	Bath  Bath	133 ppm Thiamine and 5.03 mg/L Nitrate  133 ppm Thiamine and <5.03 mg/L Nitrate
Vibrio Vaccine	32 L	Bath	None/ND