CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION

ORDER NO. R1-2015-0009
GENERAL NPDES NO. CAG131015

WASTE DISCHARGE REQUIREMENTS FOR COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY DISCHARGES TO SURFACE WATERS

The following Permittees are subject to waste discharge requirements (WDRs) set forth in this General Order upon authorization by a Notice of Applicability (NOA) from the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) Executive Officer:

Table 1. Permittee Information

Permittees	This General Order applies to individuals, public agencies, private businesses, and other legal entities (hereafter Permittees) that operate a cold water Concentrated Aquatic Animal Production (CAAP) Facility, as defined in of 40 Code of Federal Regulations section 122.24, and that discharge to water bodies within the North Coast Region. To be eligible for coverage under this General Order, a hatchery, fish farm, or other facility must contain, grow, or hold cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures. Facilities covered by this General Order discharge at least 30 calendar days per year, produce at least 20,000 pounds harvest weight of aquatic animals per year, and feed at least 5,000 pounds of food during the calendar month of maximum feeding. Facilities that do not meet the above criteria may also be designated a cold water CAAP facility upon a determination that the facility is a significant contributor of pollution to waters of the United States.

Table 2. Discharge Description

Effluent Description	Receiving Water
Discharges from flow-through or recirculating fish ladders, spawning houses, production ponds, off-line settling ponds/lagoons, excess flows (diverted but not needed in operations), or other processes associated with the CAAP facility operations.	Surface Waters within the North Coast Region

Table 3. Administrative Information

This General Order was adopted on:	**November 19, 2015**
This General Order shall become effective on:	**February 1, 2016**
This General Order shall expire on:	**January 31, 2021**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, North Coast Region have classified these discharges as follows:	**Minor**

Those Permittees who are covered under this General Order at the time of expiration will continue to be covered until coverage becomes effective under a reissued General Order. Only those CAAP facilities authorized to discharge under the expiring General Order and who submit a Notice of Intent (NOI) at least 180 days prior to the expiration date of this General Order (by August 4, 2020) will remain authorized to discharge under the administratively continued permit conditions.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this General Order.

I, Matthias St. John, Executive Officer, do hereby certify that this General Order with all attachments is a full, true, and correct copy of the General Order adopted by the California Regional Water Quality Control Board, North Coast Region, on November 19, 2015.

_____
Matthias St. John, Executive Officer

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Contents

I. Facility Information 4
II. Notification Requirements 4
III. Findings 6
IV. Discharge Prohibitions 7
V. Effluent Limitations and Discharge Specifications 7
A. Effluent Limitations 7
1. Final Effluent Limitations 7
VI. Other Discharge Specifications – Not Applicable 8
VII. Land Discharge Specifications – Not Applicable 8
VIII. Recycling Specifications – Not Applicable 8
IX. Receiving Water Limitations 8
A. Surface Water Limitations 8
B. Groundwater Limitations – Not Applicable 10
X. Provisions 10
A. Standard Provisions 10
B. Monitoring and Reporting Program (MRP) Requirements 11
1. Reopener Provisions 11
2. Special Studies, Technical Reports and Additional Monitoring Requirements 11
3. Best Management Practices and Pollution Prevention 12
4. Construction, Operation and Maintenance Specifications 15
5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable 15
6. Other Special Provisions 16
7. Compliance Schedules – Not Applicable 16
XI. Compliance Determination 16

Tables

Table 1. Permittee Information 1
Table 2. Discharge Description 1
Table 3. Administrative Information 2
Table 4. Effluent Limitations 8

Attachments

Attachment A – Definitions A-1
Attachment B – Notice of Intent B-1
Attachment C – Chemical Use Report C-1
Attachment D – Standard Provisions D-1
Attachment E – Monitoring and Reporting Program E-1
Attachment F – Fact Sheet F-1
Attachment G –Specific Water Quality Objectives from Basin Plan Table 3-1 ..... G-1

I. FACILITY INFORMATION

A. Eligible Facilities

This General Order applies to individuals, public agencies, private businesses, and other legal entities (hereafter Permittees) that operate cold water Concentrated Aquatic Animal Production (CAAP) Facilities (hereafter CAAP facilities). A cold water CAAP facility as defined in 40 Code of Federal Regulations (40 C.F.R.) section 122.24 is a fish hatchery, fish farm, or other facility which contains, grows, or holds cold water fish species or other cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon) in ponds, raceways, or other similar structures. The CAAP facilities that must be authorized by this General Order discharge at least 30 calendar days per year, produce at least 20,000 pounds harvest weight (9,090 kilograms) of aquatic animals per year, and feed at least 5,000 pounds (2,272 kilograms) of food during the calendar month of maximum feeding. A facility that does not meet the above criteria may also be designated a CAAP facility upon a determination that the facility is a significant contributor of pollution to waters of the United States. CAAP facilities not meeting the above criteria or designated as a significant contributor are not considered to be a point source and are not required to obtain a National Pollutant Discharge Elimination (NPDES) permit; however, enrollment under this General Order would be allowed.

B. Authorized Discharges

1. This General Order covers discharges to surface waters from CAAP facilities in the North Coast Region.

2. CAAP facilities authorized by this General Order, must demonstrate that the discharge meets the following criteria:

a. Except those constituents for which compliance with water quality-based effluent limitations is required in section V of this General Order, pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any applicable federal water quality criterion established by the U. S. Environmental Protection Agency (U.S. EPA) pursuant to the Clean Water Act (CWA) section 303, or any water quality objective adopted by the Regional Water Quality Control Board, North Coast Region (Regional Water Board) or State Water Resources Control Board (State Water Board), including prohibitions of discharge for the receiving waters.

b. The discharge does not cause acute or chronic toxicity in the receiving water.

3. Authorized discharges are subject to all the requirements and provisions set forth in this General Order.

4. This General Order does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharge of pollutants, that are not part of the normal operations of CAAP facilities as described in the Permittee's Notice of Intent (NOI), or any pollutants that are not ordinarily present in such waste streams.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

Existing CAAP facilities that have submitted a Report of Waste Discharge (ROWD) for renewal of their existing individual NPDES permit, and the ROWD has been deemed complete by the Regional Water Board, shall retain coverage under the administratively continued permit conditions in their existing individual NPDES permits for a period of 120 days following the effective date of this General Order. Existing Permittees who wish to continue the discharge under this General Order are required to submit a complete Notice of Intent (NOI) within 60 days

following the effective date of this General Order. If an existing Permittee does not submit a complete NOI in accordance with this section, authorization to discharge will automatically be terminated 120 days following the effective date of this General Order and the discharge shall be prohibited thereafter.

A new CAAP facility must submit an NOI and the first annual filing fee at least 180 days prior to initiation of a new discharge. A CAAP facility that is a "new source," as defined in 40 C.F.R. sections 122.2 and 122.29, will be required to comply with the California Environmental Quality Act (CEQA) and U.S. EPA's new source performance standards. A "new source" is defined as a facility that produces 100,000 pounds or more of harvest weight (45,359 kilograms) of aquatic animals per year in flow-through or recirculating systems that are constructed after September 22, 2004. A facility is a "new source" if 1) the facility is constructed at a site where no other facility is located, 2) the facility totally replaces the process or production equipment that causes the discharge of pollutants at the existing facility, or 3) the facility process is substantially independent of an existing facility at the same site. New sources will not automatically be covered under this General Order and may be required to submit an application for an individual NPDES permit.

B. General Order Coverage

Upon review of the completed NOI, the Executive Officer shall determine the applicability of this General Order to the CAAP facility discharge(s). If the CAAP facility is deemed eligible for coverage, the Executive Officer shall issue a Notice of Applicability (NOA). The NOA shall assign an individual general permit number notifying the CAAP facility that the discharge is authorized under the terms and conditions of this General Order. The NOA may specify additional site-specific monitoring and reporting requirements. A new discharge (new source) for which coverage under this General Order is being sought shall not commence until after receiving the written NOA or until the Regional Water Board has issued an individual NPDES permit for the discharge.

This General Order does not automatically apply to discharges from CAAP facilities whose maximum weight of fish during a year is less than 20,000 pounds or whose maximum monthly feeding is less than 5,000 pounds. Such facilities are required to submit an NOI. The Executive Officer may determine that such a facility is a significant contributor of pollutants and require coverage under this General Order.

The Regional Water Board may require any CAAP facility requesting coverage under this General Order to apply for and obtain an individual NPDES permit in accordance with 40 C.F.R. section 122.28(b)(3)(i). Circumstances where an individual NPDES permit may be required include, but are not limited to, where the CAAP facility is not in compliance or is not expected to be in compliance with the terms and conditions of this General Order, or where a total maximum daily load (TMDL) has been completed for a water body or a segment of a water body approved after the effective date of this General Order. CAAP facilities that discharge to a water body with an approved TMDL, or a water body listed on the State's CWA section 303(d) list, will be evaluated on a case-by-case basis for coverage under this General Order or coverage under an individual permit (see section IV.D of the Fact Sheet (Attachment F) for more information).

In accordance with 40 C.F.R. section 122.28(b)(3)(iii), any Permittee may request to be excluded from coverage under a general NPDES permit by applying for an individual NPDES permit. This request must provide justification supporting the request for an individual NPDES permit and reasons why coverage under this General Order is not appropriate. Upon receipt of the request and application, the Executive Officer shall determine if an individual NPDES permit should be issued.

C. Termination of Coverage

Upon receiving the NOA, the CAAP facility is subject to the terms and conditions of this General Order and is responsible for submitting monitoring reports and the annual fee associated with this General Order until a written request for official termination of coverage is approved by the Executive Officer. If the Regional Water Board issues an individual NPDES permit or Waste Discharge Requirements (WDRs) with more specific requirements to a CAAP facility, the applicability of this General Order is automatically terminated on the effective date of the individual permit.

D. Permit Expiration

This General Order will expire 5 years after its effective date, as specified on the cover page of this General Order. In accordance with 40 C.F.R. section 122.6, if the permit is not reissued by the expiration date, the conditions of this General Order will continue in force and effect until a new General Order is issued. Only those CAAP facilities authorized to discharge under the expiring General Order and who submit a NOI at least 180 days prior to the expiration date of this General Order will remain authorized to discharge under the administratively continued permit conditions.

III. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds:

A. Legal Authorities. This General Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).This General Order is also issued pursuant to section 402 of the federal CWA and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from CAAP facilities to surface waters.

40 C.F.R. section 122.28 authorizes the U.S. EPA and approved states to issue general permits to regulate a point source category, if the sources:

1. Involve the same or substantially similar types of operations;

2. Discharge the same type of waste;

3. Require the same type of effluent limitations or operating conditions;

4. Require similar monitoring; and

5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, U.S. EPA granted the State of California, through the State Water Board and Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123.

B. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this General Order based on readily available information for similar discharges, through monitoring and reporting programs contained in individual NPDES permits for existing CAAP facilities, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this General Order, is hereby incorporated into and constitutes Findings for this General Order. Attachments A through E and G are also incorporated into this General Order.

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsection X.C.6.a. are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA.

D. Notification of Interested Parties. The Regional Water Board has notified the interested agencies and persons of its intent to prescribe WDRs for the discharges and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

E. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharges. Details of the Public Hearing are provided in the Fact Sheet.

IV. DISCHARGE PROHIBITIONS

A. The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.

B. Creation of pollution, contamination, or nuisance, as defined by Water Code section 13050, is prohibited.

C. The discharge of waste to land that is not under the control of the Permittee is prohibited, except as authorized under section X.C.6.a. of this General Order (Solids Disposal and Handling Requirements).

D. The discharge of waste at any point not described in the NOA or authorized by permit issued by the State Water Board or another Regional Water Board Order is prohibited.

E. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited under Water Code section 13375.

F. The discharge of waste resulting from cleaning activities is prohibited.

G. The discharge of detectable levels of chemicals used for the treatment and control of disease, other than salt (NaCl), is prohibited[1].

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

During the effective period of this General Order, the Permittee is authorized to discharge pollutants from the discharge point(s) specified in the NOA within the limits and subject to the conditions set forth in this General Order. This General Order authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the NOA.

A. Effluent Limitations

1. Final Effluent Limitations

a. Total Suspended Solids (TSS) and Settleable Solids. The Permittee shall maintain compliance with the following effluent limitations at each discharge point, with compliance measured at Monitoring Location EFF-001 (EFF-002, etc. if there is more than one discharge point) as specified in the NOA:

[1] This provision on treatment waste, is intended to prevent discharge of chemicals at levels that would cause toxicity, exceed water quality objectives, or otherwise impair beneficial uses.

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Suspended Solids[1]	mg/L	8	15	---	---
Settleable Solids[1]	ml/L	0.1	0.2	---	---

Table Notes:
1. For all Permittees, except the Mad River Fish Hatchery, this limitation represents an allowable incremental increase above that concentration present in the influent water. The concentration of constituents in the influent shall be subtracted from the final effluent concentration for the purpose of applying this effluent limitation. For the Mad River Hatchery, this limitation applies to the total concentration in the effluent.

b. pH. The Permittee shall maintain compliance with the following effluent limitations for the respective receiving water at each discharge point, with compliance measured at Monitoring Location EFF-001 (EFF-002, etc. if there is more than one discharge point) as specified in the NOA:

i. Trinity River. The pH of discharges to the Trinity River shall not be depressed below 7.0 nor raised above 8.5. When the pH of the influent exceeds 8.5 at Monitoring Location INF-001 (INF-002, etc. if there is more than one discharge point) as specified in the NOA, the pH of discharges shall not exceed the pH of the influent. In no case shall effluent pH exceed 9.0.

ii. Mad River and Russian River. The pH of discharges to the Mad River and Russian River shall not be depressed below 6.5 nor raised above 8.5. When the pH of the influent exceeds 8.5 at Monitoring Location INF-001 (INF-002, etc. if there is more than one discharge point) as specified in the NOA, the pH of discharges shall not exceed the pH of the influent. In no case shall effluent pH exceed 9.0.

iii. All Other Receiving Waters. The pH of discharges to all other water bodies shall conform to those limits listed in Table 3-1 of the Basin Plan (see Attachment G). For waters not listed in Table 3-1 and where pH objectives are not prescribed, the pH shall not be depressed below 6.5 nor raised above 8.5. When the pH of the influent exceeds 8.5 at Monitoring Location INF-001 (INF-002, etc. if there is more than one discharge point) as specified in the NOA, the pH of discharges shall not exceed the pH of the influent. In no case shall effluent pH exceed 9.0.

VI. OTHER DISCHARGE SPECIFICATIONS – NOT APPLICABLE

VII. LAND DISCHARGE SPECIFICATIONS – NOT APPLICABLE

This Permit does not authorize discharges to land.

VIII. RECYCLING SPECIFICATIONS – NOT APPLICABLE

This Permit does not authorize use or application of recycled water.

IX. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are part of this General Order. However, a receiving water condition not in conformance with the limitation is not necessarily a violation of this General Order. Compliance with receiving water limitations shall be measured at monitoring locations described in the NOA. The Regional Water Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred.

1. Unless more stringent water quality objectives for dissolved oxygen are established for a specific receiving water by Table 3-1 of the Basin Plan, authorized discharges shall not cause the dissolved oxygen concentration of receiving water to be depressed below 7.0 mg/L at any time nor below 9.0 mg/L during critical spawning and egg incubation periods. In the event that the receiving waters have background dissolved oxygen concentrations that are below these levels, discharges shall not depress dissolved oxygen concentrations below existing levels.
2. Authorized discharges shall not cause or substantially contribute to exceedances of water quality objectives for specific waters of the North Coast Region that are established in Table 3-1 of the Basin Plan for specific conductance, total dissolved solids, hardness and boron.
3. Unless more stringent water quality objectives for pH are established for specific receiving waters by Table 3-1 of the Basin Plan, authorized discharges shall not cause the pH of receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, a discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from that which occurs naturally.
4. Authorized discharges shall not cause the turbidity of receiving waters to be increased more than 20 percent above naturally occurring background levels.
5. Authorized discharges shall not cause receiving waters to contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
6. Authorized discharges shall not cause receiving waters to contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
7. Authorized discharges shall not cause receiving waters to contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance, or that adversely affect beneficial uses.
8. Authorized discharges shall not cause coloration of receiving waters that causes nuisance or adversely affects beneficial uses.
9. Authorized discharges shall not cause receiving waters to contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.
10. Authorized discharges shall not cause receiving waters to contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affects beneficial uses.
11. Authorized discharges shall not cause receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in humans, plants, animals, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods, as specified by the Regional Water Board.
12. Authorized discharges shall not cause alteration of natural temperature of receiving waters unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall discharges cause an increase of the receiving water by more than 5°F above natural receiving water temperature.

13. Authorized discharges shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. Authorized discharges shall not cause bioaccumulation of pesticide concentrations in bottom sediments or aquatic life.

14. Authorized discharges shall not cause receiving waters to contain concentrations of pesticides in excess of the limiting concentrations set forth in Table 3-2 of the Basin Plan or in excess of more stringent Maximum Contaminant Levels (MCLs) established for these pollutants in Cal. Code Regs., tit. 22, division 4, chapter 15, articles 4 and 5.5.

15. Authorized discharges shall not cause receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise affect beneficial uses.

16. Authorized discharges shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board, as required by the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this General Order in accordance with such more stringent standards.

17. Authorized discharges shall not cause concentrations of chemical constituents to occur in excess of limits specified in Table 3-2 of the Basin Plan or in excess of more stringent MCLs established for these pollutants in Cal. Code Regs., tit. 22, division 4, chapter 15, articles 4 and 5.5 or in concentrations that adversely affect the agricultural supply beneficial use.

18. Authorized discharges shall not cause receiving waters to contain radionuclides in concentrations which are deleterious to human, plant, animal or aquatic life, nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal or indigenous aquatic life.

B. Groundwater Limitations – Not Applicable

X. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Permittee shall comply with all Standard Provisions included in Attachment D.

2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this General Order, the more stringent provision shall apply:

   a. Failure to comply with provisions or requirements of this General Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

   b. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, interim or final effluent limitation, land discharge specification, reclamation specification, other specification, or receiving water limitation or provision of this General Order that may result in a significant threat to human health or the environment, such as inundation of treatment components, breach of pond containment, recycled water main break or equivalent release, irrigation runoff, etc.,

that results in a discharge to a drainage channel or a surface water, the Permittee shall notify Regional Water Board staff within 24 hours of having knowledge of such noncompliance. Spill notification and reporting shall be conducted in accordance with section V.E. of Attachment D and X.E. of the Monitoring and Reporting Program.

B. Monitoring and Reporting Program (MRP) Requirements

The Permittee shall comply with the MRP, and future revisions thereto, in Attachment E.

C. Special Provisions

1. Reopener Provisions

a. Standard Revisions. If applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this General Order and make modifications in accordance with such revised standards.

b. Reasonable Potential. This General Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.

c. 303(d)-Listed Pollutants. If a Total Maximum Daily Load (TMDL) is adopted and is applicable to a discharge(s) authorized by this General order, this General Order may be reopened to incorporate the requirements of the TMDL. TMDLs for bacteria, nitrogen, phosphorus, dissolved oxygen, sediment, and temperature are currently applicable and/or under development for various watersheds within the North Coast Region. Point source waste load allocations (WLAs) have been assigned to the Mad River Fish Hatchery in accordance with the applicable TMDLs. Accordingly, this General Order implements those WLAs. The Permittees shall refer to Chapter 4 of the Basin Plan to determine whether there are any applicable TMDLs for the receiving water. In addition, the Regional Water Board may include additional provisions necessary for Permittees to comply with applicable TMDLs and/or consider revising this General Order to make it consistent with any Regional Water Board decisions arising from various petitions for re-hearing and litigation concerning the SIP, 303(d) list, and TMDL program.

d. Water Effects Ratios (WERs) and Metal Translators. A default WER of 1.0 has been used in this General Order for calculating CTR criteria for applicable priority pollutant inorganic constituents. In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from dissolved to total recoverable. If the Permittee performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators and submits a report that demonstrates that WER or translator studies were performed in accordance with U.S. EPA or other approved guidance, this General Order may be reopened to modify the effluent limitations for the applicable constituents.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. New Chemical and Aquaculture Drug Use Reporting. Based on information provided by the existing CAAP facilities in the North Coast Region, chemicals and aquaculture drugs used for the treatment and control of disease include oxytetracycline, penicillin G, florfenicol, amoxicillin trihydrate, erythromycin, Romet, formalin, PVP iodine, hydrogen peroxide, potassium permanganate, sodium chloride, acetic acid, chloramine-T, SLICE, and ivermectin. Chemicals and aquaculture drugs used for anesthesia include MS-222, sodium bicarbonate, carbon dioxide, and Aqui-S. Other

chemicals and aquaculture drugs can only be authorized if the Permittee submits a written request to the Executive Officer to use a new drug or chemical. The request for new chemical usage shall contain the following:

i. The common name(s) and active ingredient(s) of the drug or chemical proposed for use and discharge;

ii. The purpose for the proposed use of the drug or chemical (i.e., list the specific disease for treatment and specific species for treatment);

iii. The amount proposed for use and the resulting calculated concentration in the discharge;

iv. The duration and frequency of the proposed use;

v. Material Safety Data Sheets (MSDS) and available information; and

vi. Any related Investigational New Animal Drug (INAD), New Animal Drug Application (NADA) information, extra-label use requirements, and/or veterinarian prescriptions.

The Permittee shall also submit chronic toxicity test information on any new chemical or drug applied in solution for immersive treatment in accordance with methods specified in the U.S. EPA *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014) using *Ceriodaphnia dubia* and apply the Test of Significant Toxicity (TST) described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R10-003, 2010). The submission may include previous, valid chronic toxicity test results. Upon review of the written request for new chemical usage, the Executive Officer shall determine the suitability of the chemical(s) for use under this General Order). If the chemical(s) is deemed eligible for coverage, the Executive Officer shall issue an amendment to the Notice of Applicability (NOA).

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program (PMP)

i. The Permittee shall, as required by the Executive Officer, develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as detected, but not quantified (DNQ) when the effluent limitation is less than the method detection limit (MDL), sample results from analytical methods more sensitive than those methods required by this General Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant or contaminant of emerging concern (CEC) is present in the effluent above an effluent limitation and either:

(a) A sample result is reported as DNQ and the effluent limitation is less than the RL; or

(b) A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

ii. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(a) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

(b) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

(c) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

(d) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

(e) An annual status report that shall be submitted as part of the Annual Facility Report due July 1st to the Regional Water Board and shall include:

(1) All PMP monitoring results for the previous year;

(2) A list of potential sources of the reportable priority pollutant(s);

(3) A summary of all actions undertaken pursuant to the control strategy; and

(4) A description of actions to be taken in the following year.

b. Best Management Practices (BMP) Plan

Each Permittee must submit **within 90 days of the issuance of the NOA** authorizing coverage under this General Order a site-specific BMP Plan developed and implemented as required by 40 C.F.R. part 451, subpart A. An existing BMP plan may be modified for use under this section. The Permittee 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 Permittee 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.

The BMP Plan must include, at a minimum, the following BMPs:

i. Chemical and Solids Controls

(a) Feed management and feeding strategies must minimize the discharge of unconsumed food.

(b) Raceways and ponds must be cleaned at such frequency and in such a manner to prevent the discharge of accumulated solids discharged to waters of the United States.

(c) Fish grading, harvesting and other activities within raceways or ponds must be conducted in such a manner to minimize the discharge of accumulated solids.

(d) Fish mortalities must be removed and properly disposed of on a regular basis to prevent discharge to waters of the United States, except in cases where the discharge to surface waters is determined to benefit the aquatic environment. Procedures must be identified and implemented to collect, store, and dispose of fish and other solid wastes.

(e) A description of practices used to minimize use of drugs and chemicals to the extent feasible.

(f) All drugs and pesticides must be used in accordance with applicable label directions (Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) or Federal Food and Drug Administration (FDA)), except under the following conditions, both of which must be reported in writing to the Executive Officer

(1) Participation in Investigational New Animal Drug (INAD) studies, using established protocols; or

(2) Extra-label drug use, as prescribed by a veterinarian.

ii. Materials Storage

(a) Ensure proper storage of drugs, chemicals, and feed in a manner designed to prevent spills that may result in the unauthorized discharge of drugs, pesticides or feed to land or waters of the United States.

(b) Implement procedures for properly containing, cleaning, and disposing of any spilled material.

iii. Structural Maintenance

(a) Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.

(b) Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

iv. Recordkeeping

(a) In order to calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals.

(b) Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

v. Training

(a) Train all facility personnel in spill prevention and how to respond in the event of a spill in order to ensure the proper clean-up and disposal of spilled material adequately.

(b) Train personnel on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment. The Permittee shall ensure that its operations staff are familiar with the BMP Plan and have been adequately trained in the specific procedures it requires.

c. Chemical Controls, Verification Monitoring and Reporting Plan

Within 1 year of the issuance of the NOA authorizing coverage under this General Order, each Permittee must submit for Executive Officer concurrence a site-specific Chemical Controls, Monitoring and Reporting Plan (Reduction and Verification MRP) in order to minimize the need for disease control chemicals and characterize effluent associated with disease control activities. The Reduction and Verification MRP must include, at a minimum, (1) an evaluation of controls and alternatives for the reduction of chemical usage at each facility, (2) a plan to collect and analyze site specific effluent for whole effluent toxicity, (3) a plan to collect, analyze, and compare to water quality objectives concentrations of antibiotics and other treatments used for the prevention of disease in site specific effluent, and (4) a schedule for implementation.

Each Permittee shall implement a site-specific Reduction and Verification MRP in accordance with the implementation schedule approved by the Executive Officer.

4. Construction, Operation and Maintenance Specifications

a. This General Order (Attachment D, Standard Provision I.D) requires that the Permittee at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with this General Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures.

b. The Permittee shall maintain an updated Operation and Maintenance (O&M) Manual for the Facility. The Permittee shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel onsite and for review by state or federal inspectors. The O&M Manual[2] shall include the following:

i. Description of the Facility's organizational structure showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment Facility so as to achieve the required level of treatment at all times.

ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

iii. Description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

v. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Permittee will be able to comply with requirements of this General Order.

vi. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

[2] If a facility's existing operations and/ or best management practices (BMP) manual meets all of the requirements contained in Special Provision X.C.4.b.i-vi, it shall satisfy this provision.

6. Other Special Provisions

a. Solids Disposal

i. The application to land of collected screenings and other solids, including fish carcasses is not covered or authorized by this Order. Collected screenings and other solids, including fish carcasses shall be disposed of in a manner consistent with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste , as set forth in Cal. Code Regs., tit 27, division 2, subdivision 1, § 20005, et seq.

ii. A report describing solids handling, disposal method, and final disposition of solids and/or fish carcasses shall be submitted to the Regional Water Board within 90 days of the issuance of the NOA authorizing coverage under this General Order. The report may be submitted in conjunction with the Permittee's BMP Plan.

iii. All aquaculture drugs and chemicals not discharged in accordance with the provisions of this General Order shall be disposed of in an environmentally safe manner, according to label guidelines, MSDS guidelines, and the Permittee's BMP Plan. Any other form of disposal requires approval from the Executive Officer.

7. Compliance Schedules – Not Applicable

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

XI. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section V of this General Order will be determined as specified below.

A. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP of this General Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data

When determining compliance with an average monthly effluent limitation for priority pollutants, and more than one sample result is available, the Permittee shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure.

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Permittee will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee will be considered out of compliance for that calendar month. The Permittee will only be considered out of compliance for days when the discharge occurs.

D. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection B, above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Permittee will be considered out of compliance for that parameter for that 1 day only within the reporting period.

E. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

F. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

ATTACHMENT A – DEFINITIONS

Aquaculture Facility: a hatchery, fish farm, or other facility that contains, grows, or holds fish for later harvest (or process) and for sale or release.

Arithmetic Mean (μ): also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs): mean schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, and solids or waste disposal.

Bioaccumulative Pollutants: substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic Pollutants: substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV): a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Cold Water Species: means cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon).

Concentrated Aquatic Animal Production (CAAP) Facility: means point sources subject to the National Pollutant Discharge Elimination System (NPDES) permit program including those upland facilities that discharge for at least 30 days per year and contain, grow, or hold cold water fish species or other cold water aquatic animals except in facilities which produce less than 9,000 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year and facilities which feed less than 2,275 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass; or (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ): sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit: the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effective Concentration (EC): a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA): a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays: indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration: the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries: waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Extralabel Drug Use: means a drug approved under the Federal Food, Drug, and Cosmetic Act that is not used in accordance with the approved label directions (see 21 C.F.R. part 530).

FDA: means the Federal Food and Drug Administration.

FIFRA: means the Federal Insecticide, Fungicide, and Rodenticide Act.

Inhibition Concentration (IC): the IC25 is typically calculated as a percentage of effluent. It is the level at which the organisms exhibit 25 percent reduction in biological measurement such as reproduction or growth. It is calculated statistically and used in chronic toxicity testing.

Inland Surface Waters: all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Investigational New Animal Drug (INAD): means a drug for which there is a valid exemption in effect under section 512(j) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 360(j), to conduct experiments.

Lowest Observed Effect Concentration (LOEC): the lowest concentration of an effluent or toxicant that results in adverse effects on the test organism (i.e., where the values for the observed endpoints are statistically different from the control).

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median: the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL): the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R., Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML): the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone: a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND): those sample results less than the laboratory's MDL.

Notice of Applicability (NOA): means a written notification issued by the NPDES permitting authority authorizing discharge under the terms and conditions of a general order.

Notice of Intent (NOI): means a written application submitted to the NPDES permitting authority seeking authorization to discharge under a general order.

Off-line Settling Basin: means a constructed retention basin that receives wastewater from cleaning of aquaculture facility rearing/holding units, or quiescent zones, or both, for the retention and treatment of wastewater through settling of solids.

Persistent Pollutants: substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP): waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-

based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention: any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Production: means the amount of fish grown and fed in a given period of time for harvest, processing, or release.

Publicly Owned Treatment Works (POTW): a treatment works as defined in section 212 of the Clean Water Act (CWA), which is owned by a State or municipality as defined by section 502(4) of the CWA. [Section 502(4) of the CWA defines a municipality as a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes). This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Reporting Level (RL): the ML (and its associated analytical method) used for reporting and compliance determination. The MLs included in this General Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System: the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Solids: means sand, silt, or other debris collected from facility intake or source waters and accumulated waste material from aquaculture raceways and their quiescent zones, offline settling basins, full-flow settling basins, ponds, or other areas of accumulation.

Source of Drinking Water: any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ): a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE): a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Test of Significant Toxicity (TST): the statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010). TST was developed by the U.S. Environmental Protection Agency (EPA) for analyzing WET and ambient toxicity data. Using the TST approach, the sample is declared toxic if there is greater than or equal to a 25% effect in chronic tests, or if there is greater than or equal to a 20% effect in acute tests at the permitted instream waste concentration (IWC) (referred to as the toxic regulatory management decision (RMD)). The sample is declared non-toxic if there is less than or equal to a 10% effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD).

ATTACHMENT B – NOTICE OF INTENT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
ORDER NO. R1-2015-0009
GENERAL NPDES NO. CAG131015

WASTE DISCHARGE REQUIREMENTS
FOR
COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY
DISCHARGES TO SURFACE WATERS

I. OWNER

Name:		
Mailing Address:		
City:	State:	ZIP:
Contact Person:		
Phone:	Fax:	E-mail:
Signature:		Date:

II. OPERATOR (*if different from owner*)

Name:		
Mailing Address:		
City:	State:	ZIP:
Contact Person:		
Phone:	Fax:	E-mail:
Signature:		Date:

III. PROPERTY OWNER

Name:		
Mailing Address:		
City:	State:	ZIP:
Contact Person:		
Phone:	Fax:	E-mail:
Signature:		Date:

IV. BILLING ADDRESS

Name:		
Mailing Address:		
City:	State:	ZIP:
Contact Person:		
Phone:	Fax:	E-mail:

V. FACILITY INFORMATION

Name:		
Location Address:		
City:	State:	ZIP:
County:		
Mailing Address:		
City:	State:	ZIP:
Contact Person:		
Phone:	Fax:	E-mail:
Active Orders or Permits adopted by the Regional Water Board, including effective dates:		
☐ *Attach a map at least 1:24000 (1" = 2000') showing the location of the discharge (e.g., USGS 7.5" topographic map). The map should show the facility location, discharge point(s), and surface waters.*		

VI. OPERATIONS AND PRODUCTION INFORMATION

Is the production system best described as a *flow-through*, a *recirculating*, or a *pond system*?
Number and type (e.g., concrete raceways, earthen ponds, etc.) of rearing units: Total number of rearing units:
Number and type of treatment units (full-flow settling basins, off-line settling basins, quiescent zones, etc.):
Does the facility operate year-round? If not, project the number of operating days on a monthly basis throughout the calendar year.
☐ *Attach a flow diagram of the production operations, wastewater collection and treatment, and location of monitoring locations.*

In the table below, list the species grown or held at your facility and estimate the annual production of each in gross harvestable weight (if fish are released rather than harvested, production is the estimated weight at the time of release) for the 5-year term of the permit, based on historical operations, planned changes, and/or design capacity.

Species	Gross Harvestable Weight (lbs)				
	Year One	Year Two	Year Three	Year Four	Year Five

VII. WATER SOURCES

For each water source, indicate the minimum and maximum flow and the period in which that source contributes flow.

Source	Minimum Flow (MGD)	Maximum Flow (MGD)	Period

Does the facility alter the intake water chemically or physically? ☐Yes ☐No

If yes, describe how the Facility alters the intake water:

VIII. WASTEWATER CHARACTERIZATION

For each discharge point to surface waters, describe the facility process from which water is discharged through each discharge point.

Discharge Point	Description of source, frequency, duration, and volume of discharge

Discharge Point	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

☐	For each discharge point to surface waters, attach the results of effluent monitoring for the priority pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38. The Permittee is not required to sample and analyze for asbestos. Effluent hardness shall be monitored concurrently with the priority pollutant sample. Analytical methods must achieve the lowest minimum level (ML) specified in Attachment 4 of the SIP; and in accordance with Section 2.4 of the SIP, the Permittee shall report the ML and MDL for each sample result.
☐	For chemical or drug applied in solution for immersive treatment attach chronic toxicity test information in accordance with methods specified in the U.S. EPA *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014) using *Ceriodaphnia dubia* and apply the Test of Significant Toxicity (TST) described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R10-003, 2010). The submission may include previous, valid chronic toxicity test results.

IX. RECEIVING WATER CHARACTERIZATION

Receiving Water Name:
Hydrologic Unit:
Is the receiving water listed as impaired pursuant to Section 303(d) of the Clean Water Act? ☐Yes ☐No If yes, for what pollutants?

Identify the applicable water quality objectives established by Table 3-1 of the Basin Plan, as listed in Attachment G of this General Order.

Constituent	Objectives			
	Minimum	Maximum	90% Upper Limit	50% Upper Limit
Specific Conductance (µmhos/cm)				
Total Dissolved Solids (mg/L)				
Dissolved Oxygen (mg/L)				
pH (pH units)				
Hardness (mg/L)				
Boron (mg/L)				

X. FEED USE

Describe the facility's use of feed. This may be a range expected over the next 5 years.

Type of Feed	Maximum Monthly (lbs)	Month of Maximum Use	Annual Average (lbs)

XI. AQUACULTURE DRUGS AND CHEMICALS

List all projected use of chemicals and therapeutic drugs, including cleaners and disinfectants, feed additives or other ingested drugs, immersion or injected treatments. (Use an attachment if necessary.)

Drug or Chemical	Maximum Daily Amount Used	Method of Application	Location of Application

XII. FEE REQUIREMENTS

☐ *Provide the applicable fees. Information concerning the applicable fees can be found at www.waterboards.ca.gov/resources/fees/. Checks must be made payable to the State Water Resources Control Board.*

XIII. CERTIFICATION AND SIGNATURE

"I hereby certify under penalty of perjury that the information provided in this application and in any attachments is true and accurate to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. By signing this NOI, I agree to comply with the provisions of the General Order. The Regional Water Board will be immediately notified of any violation of the General Order."

_____
Printed Name of Person Signing

_____
Date

_____
Signature

_____
Title

ATTACHMENT C – CHEMICAL USE REPORT

Date	Chemical Name	Purpose	Amount Applied	Units	Treatment Duration	Treatment Type (Immersion, Feed, Injection)	Flow Treated (MGD)	Total Effluent Flow (MGD)	Calculated Effluent Concentration
For drugs and chemicals used for the treatment and control of diseases (other than NaCl), use the space below to describe the method used to demonstrate compliance with Discharge Prohibition IV.G of this General Order. Information that may be used to demonstrate compliance includes monitoring data for the drug or chemical at the time of application or calculation of the concentration (C) at the point of discharge as compared to the reporting level for the drug or chemical using the equation C = (treatment concentration) x (flow in treatment area) ÷(flow at point of discharge).									

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Permittee must comply with all of the conditions of this General Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

2. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this General Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this General Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this General Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Permittee only when necessary to achieve compliance with the conditions of this General Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This General Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this General Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this General Order (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this General Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this General Order (40 C.F.R. § 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring General Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

   c. The Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

a. An upset occurred and that the Permittee can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

c. The Permittee submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

d. The Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This General Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this General Order after the expiration date of this General Order, the Permittee must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This General Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the General Order to change the name of the Permittee and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 or, in the case of sludge use or disposal, approved under 40 C.F.R. part 136 unless otherwise specified in 40 C.F.R. part 503 unless other test procedures have been specified in this General Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this General Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this General Order, and records of all data used to complete the application for this General Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Permittee (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Permittee shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this General Order or to determine compliance with this General Order. Upon request, the Permittee shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this General Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed as follows:

a. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or

decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

b. For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

c. For a municipality, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this General Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for

submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this General Order. (40 C.F.R. § 122.41(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Permittee monitors any pollutant more frequently than required by this General Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this General Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this General Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Permittee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

a. Any unanticipated bypass that exceeds any effluent limitation in this General Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

b. Any upset that exceeds any effluent limitation in this General Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this General Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Permittee shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this General Order's requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board**,** State Water Board, or U.S. EPA, the Permittee shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Permittees shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this General Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

   a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

   b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this General Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Contents

I. General Monitoring Provisions E-2
II. Monitoring Locations E-3
III. Influent Monitoring Requirements E-3
  A. Influent Monitoring E-3
IV. Effluent Monitoring Requirements E-3
  A. Effluent Monitoring – Applicable to All CAAP Facilities E-3
  B. Effluent Monitoring – Applicable to the Coyote Valley Fishery Mitigation Facility E-4
  C. Effluent Monitoring – Applicable to the Trinity River Salmon and Steelhead Hatchery E-5
  D. Effluent Monitoring – Applicable to the Warm Springs Fish Hatchery E-5
V. Whole Effluent Toxicity Testing Requirements – Not Applicable E-5
VI. Land Discharge Monitoring Requirements – Not Applicable E-5
VII. Recycling Monitoring Requirements – Not Applicable E-6
VIII. Receiving Water Monitoring Requirements E-6
  A. Monitoring Location RSW-001 ..... E-6
  B. Monitoring Location RSW-002 ..... E-6
IX. Other Monitoring Requirements E-6
X. Reporting Requirements E-7
  A. General Monitoring and Reporting Requirements E-7
  B. Self-Monitoring Reports (SMRs) E-7
  C. Discharge Monitoring Reports (DMRs) – Not Applicable E-9
  D. Other Reports E-9

Tables

Table E-1. Test Methods and MLs for Priority Pollutants E-2
Table E-2. Monitoring Station Locations E-3
Table E-3. Influent Monitoring[1] E-3
Table E-4. Effluent Monitoring – Applicable to All CAAP Facilities E-4
Table E-5. Effluent Monitoring – Applicable to the Coyote Valley Fishery Mitigation Facility E-5
Table E-6. Effluent Monitoring – Applicable to the Trinity River Salmon and Steelhead Hatchery E-5
Table E-7. Effluent Monitoring – Applicable to the Warm Springs Fish Hatchery E-5
Table E-8. Upstream Receiving Water Monitoring Requirements E-6
Table E-9. Downstream Receiving Water Monitoring Requirements E-6
Table E-10. Monitoring Periods and Reporting Schedule E-7

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Wastewater Monitoring Provision. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.

B. Supplemental Monitoring Provision. If the Permittee monitors any pollutant more frequently than required by this General Order, using test procedures approved by 40 C.F.R. part 136 or as specified in this General Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual discharge monitoring reports.

C. Data Quality Assurance Provision. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board) Division of Drinking Water (DDW), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

D. Instrumentation and Calibration Provision. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly installed, calibrated, operated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

E. Minimum Levels (ML) and Reporting Levels (RL) Provision. Compliance and reasonable potential priority pollutant monitoring analyses shall be conducted using commercially available and reasonably achievable detection limits that are lower than the applicable effluent limitation and/or water quality criteria. If no ML value is below these levels, the lowest ML shall be selected as the RL. Test methods and required MLs for priority pollutants assigned effluent limitations in accordance with Order No. R1-2015-0009 are included in Table E-1. Applicable MLs for all priority pollutants can be referenced in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP).

Table E-1. Test Methods and MLs for Priority Pollutants

CTR#	Constituent	Types of Analytical Methods MLs (µg/L)					
		Flame Atomic Absorption (FAA)	Inductively Coupled Plasma (ICP)	Inductively Coupled Plasma/ Mass Spectroscopy (ICPMS)	Stabilized Platform Graphite Furnace Atomic Absorption (SPGFAA)	Colorimetric (Color)	Gas Chromatography/ Mass Spectroscopy (GCMS)
5b	Chromium VI	---	10	0.5	1	---	---
14	Cyanide, Total (as CN)	---	---	---	---	5	---
68	Bis (2-Ethylhexyl) Phthalate	---	---	---	---	---	5

II. MONITORING LOCATIONS

The Permittee shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this General Order:

Table E-2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	**INF-001**	Shall be located where a representative sample of influent water can be collected prior to entering the CAAP facility. If there is more than one influent source, each source shall be designated in sequence and designated as INF-002, INF-003, etc.
001	**EFF-001**	Shall be located where a representative sample of the effluent can be collected prior to discharging to surface water. If there is more than one discharge, each discharge point where a representative sample of the effluent can be collected prior to discharging to surface waters shall be designated as EFF-002, EFF-003, etc.
---	**RSW-001**	Shall be located in the receiving water upstream of all discharge points.
---	**RSW-002**	Shall be located downstream of all discharge points.

III. INFLUENT MONITORING REQUIREMENTS

A. Influent Monitoring

1. The Permittee shall monitor the raw water supply to the CAAP facility at Monitoring Location INF-001 (INF-002, etc. if there is more than one water supply) when discharges from the CAAP facility are occurring. Samples shall be collected at approximately the same time as effluent and receiving water samples. Influent monitoring shall include the following:

Table E-3. Influent Monitoring[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Suspended Solids	mg/L	Grab	Quarterly	Standard Methods[2]
Settleable Solids	ml/L	Grab	Quarterly	Standard Methods

Table Notes:
1. The Mad River Fish Hatchery is not required to conduct influent monitoring.
2. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Effluent Monitoring – Applicable to All CAAP Facilities

1. The Permittee shall monitor effluent at Monitoring Location EFF-001 (EFF-002, etc. if there is more than one discharge point) as follows. Effluent samples shall be collected during or immediately following raceway cleaning or administration of drug or chemical treatments. Time of collection of samples shall be recorded. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level:

Table E-4. Effluent Monitoring – Applicable to All CAAP Facilities

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	MGD	Meter or Gauge	Daily[1]	---
Total Suspended Solids	mg/L	Grab	Quarterly[2]	Standard Methods[3]
Net Total Suspended Solids	mg/L	Calculation[4]	Quarterly	---
Settleable Solids	ml/L	Grab	Quarterly[2]	Standard Methods
Net Settleable Solids	ml/L	Calculation[4]	Quarterly	---
Turbidity	NTU	Grab	Quarterly	Standard Methods
pH	pH units	Grab	Quarterly	Standard Methods
Temperature	°F	Grab	Quarterly	Standard Methods
Ammonia Nitrogen	mg/L	Grab	Quarterly[5]	Standard Methods
CTR Priority Pollutants[6]	µg/L	Grab	Once per permit term[7]	Standard Methods[8]

Table Notes:

1. The Permittee shall monitor the discharge flow rates when there is a discharge. Daily flows shall be calculated or measured and recorded monthly.
2. Accelerated Monitoring. If the test result exceeds an effluent limitation the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the pollutant source and take steps needed to return to compliance.
3. In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
4. The net concentration shall be calculated by subtracting the influent concentration from the effluent concentration. The Mad River Fish Hatchery is not required to report the net concentration.
5. Measurements must be taken to coincide with quarterly effluent and receiving water sampling for temperature and pH.
6. Those pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38.
7. Monitoring shall consist of a full priority pollutant scan one time at least 180 days but no more than 365 days prior to expiration of this General Order, and the results shall be submitted with the Notice of Intent (NOI) no later than 180 days prior to the expiration date of this Order. The Permittee is not required to sample and analyze for asbestos. Effluent hardness shall be monitored concurrently with the priority pollutant sample.
8. Analytical methods must achieve the lowest minimum level (ML) specified in Attachment 4 of the SIP; and in accordance with Section 2.4 of the SIP, the Permittee shall report the ML and MDL for each sample result.

B. Effluent Monitoring – Applicable to the Coyote Valley Fishery Mitigation Facility

1. The Permittee shall monitor effluent at Monitoring Locations EFF-001 as follows. Time of collection of samples shall be recorded. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level:

Table E-5. Effluent Monitoring – Applicable to the Coyote Valley Fishery Mitigation Facility

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[1]
Chromium VI	µg/L	Grab	2X/permit term	ICP[2] (10 µg/L), ICPMS[3] (0.5 µg/L), or SPGFAA[4] (2.0 µg/L)

Table Notes:
1. The Permittee may use a different analytical method than those specified in this table if the analytical method is more sensitive than the test methods contained in 40 C.F.R. part 136 or if the reporting level is lower than the MLs listed in Appendix 4 of the SIP.
2. Inductively Coupled Plasma.
3. Inductively Coupled Plasma / Mass Spectroscopy.
4. Stabilized Platform Graphite Furnace Atomic Absorption.

C. Effluent Monitoring – Applicable to the Trinity River Salmon and Steelhead Hatchery

1. The Permittee shall monitor effluent at Monitoring Locations EFF-002, EFF-003, and EFF-004 as follows. Time of collection of samples shall be recorded. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level:

Table E-6. Effluent Monitoring – Applicable to the Trinity River Salmon and Steelhead Hatchery

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[1]
Cyanide, Total (as CN)	µg/L	Grab[2]	2X/permit term	Color[3] (5 µg/L)

Table Notes:
1. The Permittee may use a different analytical method than those specified in this table if the analytical method is more sensitive than the test methods contained in 40 C.F.R. part 136 or if the reporting level is lower than the MLs listed in Appendix 4 of the SIP.
2. In lieu of grab samples at each location, the Permittee may collect a flow-weighted composite sample from Monitoring Locations EFF-002, EFF-003, and EFF-004.
3. Colorimetric.

D. Effluent Monitoring – Applicable to the Warm Springs Fish Hatchery

1. The Permittee shall monitor effluent at Monitoring Location EFF-001 (also referred to as Monitoring Location M-002) as follows. Time of collection of samples shall be recorded. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level:

Table E-7. Effluent Monitoring – Applicable to the Warm Springs Fish Hatchery

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[1]
Bis (2-Ethylhexyl) Phthalate	µg/L	Grab	Semi-Annually	GCMS[2] (5 µg/L)

Table Notes:
1. The Permittee may use a different analytical method than those specified in this table if the analytical method is more sensitive than the test methods contained in 40 C.F.R. part 136 or if the reporting level is lower than the MLs listed in Appendix 4 of the SIP.
2. Gas Chromatography / Mass Spectrometry.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS – NOT APPLICABLE

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

The Permit does not authorize discharges to land.

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

The Permit does not authorize use or application of recycled water.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

1. The Permittee shall monitor the upstream receiving water at Monitoring Location RSW-001 as follows:

Table E-8. Upstream Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	Quarterly	Standard Methods[1]
pH	pH Units	Grab	Quarterly[2]	Standard Methods
Temperature	°F	Grab	Quarterly[2]	Standard Methods
Turbidity	mg/L	Grab	Quarterly	Standard Methods
Hardness ($CaCO_3$)	mg/L	Grab	4X/permit term[3]	Standard Methods
CTR Priority Pollutants[4]	µg/L	Grab	1X/permit term[5]	Standard Methods[6]

Table Notes:
1. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
2. Measurements must be taken to coincide with monthly effluent monitoring for ammonia.
3. Samples shall be collected in a manner representing seasonal variations. One sample shall be collected in concert with CTR priority pollutant sample collection.
4. Those pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38.
5. Monitoring shall consist of a full priority pollutant scan one time at least 180 days but no more than 365 days prior to expiration of this General Order, concurrent with effluent sampling. The Permittee is not required to sample and analyze for asbestos. Upstream receiving water hardness shall be monitored concurrently with the priority pollutant sample.
6. Analytical methods must achieve the lowest minimum level (ML) specified in Attachment 4 of the SIP; and in accordance with Section 2.4 of the SIP, the Permittee shall report the ML and MDL for each sample result.

B. Monitoring Location RSW-002

1. The Permittee shall monitor the downstream receiving water at Monitoring Location RSW-002 as follows:

Table E-9. Downstream Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	Quarterly	Standard Methods[1]
pH	pH Units	Grab	Quarterly[2]	Standard Methods
Temperature	°F	Grab	Quarterly[2]	Standard Methods
Turbidity	mg/L	Grab	Quarterly	Standard Methods

Table Notes:
1. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
2. Measurements must be taken to coincide with monthly effluent monitoring for ammonia.

IX. OTHER MONITORING REQUIREMENTS

A. Quarterly Drug and Chemical Use Report

The Permittee shall submit a quarterly report describing all aquaculture drugs or chemicals used at the Facility using the Chemical Use Report in Attachment C of this General Order. The information that shall be provided includes:

1. The name(s) and active ingredient(s) of the drug or chemical;

2. The date(s) of application;

3. The purpose(s) for the application;

4. The method of application (e.g., immersion bath, administered in feed), duration of treatment, whether the treatment was static or flush (for drugs or chemicals applied directly to water), amount in gallons or pounds used, treatment concentration(s), and the flow measured in million gallons per day (MGD) in the treatment units;

5. The total flow through the facility measured in MGD to the discharge point after mixing with the treated water;

6. For drugs and chemicals used for the treatment and control of diseases (other than NaCl), the method used to demonstrate compliance with Discharge Prohibition IV.G of this General Order; and

7. The method of disposal for drugs or chemicals used but not discharged in the effluent.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Permittee shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self-Monitoring Reports (SMRs)

1. The Permittee shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Permittee shall submit quarterly as well as annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this General Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Permittee monitors any pollutant more frequently than required by this General Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	**August 1, 2015**	All	Submit with monthly SMR
Daily	**August 1, 2015**	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	**August 1, 2015**	Sunday through Saturday	Submit with monthly SMR
Monthly	**August 1, 2015**	1st day of calendar month through last day of calendar month	1st of the second month following the monitoring period

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Quarterly	**August 1, 2015**	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1 (of the following year)
Annually	**January 1, 2015**	January 1 through December 31	February 1 (of the following year)

4. **Reporting Protocols.** The Permittee shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136. The Permittee shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

   For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

   d. Permittees are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

6. **Multiple Sample Data.** When determining compliance with an AMEL for priority pollutants and more than one sample result is available, the Permittee shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

7. The Permittee shall submit SMRs in accordance with the following requirements:

a. The Permittee shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Permittee is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Permittee shall electronically submit the data in a tabular format as an attachment.

b. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. Annual Report. The Permittee shall submit an annual report to the Regional Water Board for each calendar year. The report shall be submitted by February 1st of the following year. The report shall, at a minimum, include the following:

a. Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Permittee monitors any pollutant more frequently than required by this General Order, using test procedures approved under 40 C.F.R. part 136 or as specified in this General Order, the results of this monitoring shall be included in the calculation and report of the data submitted SMR.

b. A comprehensive discussion of the Permittee's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with this General Order.

ATTACHMENT F – FACT SHEET

Contents

I. Permit Information F-3
II. Notification Requirements F-4
  A. General Order Application F-4
  B. General Order Coverage F-5
III. Facility Description F-6
  A. Description of Wastewater and Biosolids Treatment and Controls F-6
  B. Discharge Points and Receiving Waters F-7
  C. Summary of Existing Requirements F-7
  D. Compliance Summary F-8
  E. Planned Changes – Not Applicable F-8
IV. Applicable Plans, Policies, and Regulations F-8
  A. Legal Authorities F-8
  B. California Environmental Quality Act (CEQA) F-9
  C. State and Federal Laws, Regulations, Policies, and Plans F-9
  D. Impaired Water Bodies on CWA 303(d) List F-11
  E. Other Plans, Policies and Regulations F-13
V. Rationale For Effluent Limitations and Discharge Specifications F-17
  A. Discharge Prohibitions F-17
  B. Technology-Based Effluent Limitations F-18
    1. Scope and Authority F-18
    2. Applicable Technology-Based Effluent Limitations F-19
  C. Water Quality-Based Effluent Limitations (WQBELs) F-20
    1. Scope and Authority F-20
    2. Applicable Beneficial Uses and Water Quality Criteria and Objectives F-21
    3. Determining the Need for WQBELs F-21
    4. WQBEL Calculations F-27
    5. Whole Effluent Toxicity (WET) F-27
  D. Final Effluent Limitation Considerations F-27
    1. Anti-Backsliding Requirements F-27
    2. Antidegradation Policies F-29
    3. Stringency of Requirements for Individual Pollutants F-29
  E. Interim Effluent Limitations – Not Applicable F-30
  F. Recycling Specifications – Not Applicable F-30
VI. Rationale for Receiving Water Limitations F-30
  A. Surface Water F-30
  B. Groundwater – Not Applicable F-30
VII. Rationale for Provisions F-30
  A. Standard Provisions F-30
  B. Special Provisions F-31
    1. Reopener Provisions F-31
    2. Special Studies and Additional Monitoring Requirements F-32
    3. Best Management Practices and Pollution Prevention F-32
    4. Construction, Operation, and Maintenance Specifications F-32
    5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable F-33
    6. Other Special Provisions F-33
    7. Compliance Schedules – Not Applicable F-33
VIII. Rationale for Monitoring and Reporting Requirements F-33

A. Influent Monitoring....F-33
B. Effluent Monitoring....F-33
C. Whole Effluent Toxicity Testing Requirements....F-34
D. Receiving Water Monitoring....F-34
1. Surface Water....F-34
2. Groundwater....F-34
E. Other Monitoring Requirements....F-35
IX. Public Participation....F-35
A. Notification of Interested Parties....F-35
B. Written Comments....F-35
C. Public Hearing....F-35
D. Waste Discharge Requirements Petitions....F-36
E. Information and Copying....F-36
F. Register of Interested Persons....F-36
G. Additional Information....F-36

Tables

Table F-1. Existing CAAP Facilities....F-3
Table F-2. Discharge Points and Receiving Waters for Existing CAAP Facilities....F-7
Table F-3. Historic Effluent Limitations for Existing CAAP Facilities....F-7
Table F-4. Basin Plan Beneficial Uses....F-9
Table F-5. Summary of Influent pH Data....F-22
Table F-6. Summary of Reasonable Potential Analysis Results....F-26

ATTACHMENT F – FACT SHEET

As described in section III.B of this General Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this General Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this General Order.

This General Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Permittees in California. Only those sections or subsections of this General Order that are specifically identified as "not applicable" have been determined not to apply to the Permittees covered by this General Order. Sections or subsections of this General Order not specifically identified as "not applicable" are fully applicable to the Permittees covered by this General Order.

I. PERMIT INFORMATION

A. Federal Regulations at 40 C.F.R. section 122.24 define a cold water concentrated aquatic animal production (CAAP) facility as a fish hatchery, fish farm, or other facility which contains, grows, or holds cold water fish species or other cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon) in ponds, raceways or other similar structures. Flows from CAAP facilities are ultimately discharged to receiving waters and 40 C.F.R. section 122.24 specifies that CAAP facilities are point sources subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) program. A CAAP facility must discharge at least 30 calendar days per year, produce at least 20,000 pounds harvest weight (9,090 kilograms) of aquatic animals per year, and feed at least 5,000 pounds (2,272 kilograms) of food during the calendar month of maximum feeding to be considered a point source. A small fish rearing operation that does not meet the production and feeding criteria may be designated as a CAAP facility by the Regional Water Board Executive Officer if it is determined that the facility is a significant contributor of pollution to waters of the United States. CAAP facilities not meeting the above criteria or not designated as a significant contributor are not considered to be a point source and are, therefore, not required to obtain an NPDES permit.

On 22 September 1989, the United States Environmental Protection Agency (U.S. EPA) granted the State of California, through the State Water Resources Control Board (State Water Board) and the Regional Water Boards the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123. General permits may be issued to regulate a category of point sources if the sources involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operation conditions; require similar monitoring; and are more appropriately regulated under a general permit rather than individual permits. The Regional Water Board has determined that existing and new CAAP facilities are more appropriately regulated by a general NPDES permit.

For the purposes of this General Order, references to the "Discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Permittee herein.

B. There are currently five CAAP facilities permitted through individual NPDES permits issued by the Regional Water Board to discharge wastewater to waters of the United States, as shown in the table below.

Table F-1. Existing CAAP Facilities

Permittee(s)	Facility	Individual Order No.	Individual Permit No.	Receiving Water
United States Army Corp of Engineers (ACOE) and California Department of Fish and Wildlife (DFW)	Coyote Valley Fishery Mitigation Facility	97-60	CA0024791	Russian River

Permittee(s)	Facility	Individual Order No.	Individual Permit No.	Receiving Water
Pacificorp and DFW	Iron Gate Hatchery	R1-2000-17	CA0006688	Klamath River
DFW	Mad River Fish Hatchery	R1-2005-0036	CA0006670	Mad River
United States Bureau of Reclamation (USBR) and DFW	Trinity River Salmon and Steelhead Hatchery	R1-2000-18	CA0006696	Trinity River
ACOE and DFW	Warm Springs Fish Hatchery	97-61	CA0024350	Dry Creek, tributary to the Russian River

The individual permits for the existing CAAP facilities have expired. The terms and conditions of the individual permits have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and NPDES permit requirements are adopted pursuant to this General Order, except for Iron Gate Hatchery for which the Regional Water Board will adopt individual WDRs and NPDES permit at a future date. Further references in this Order to "existing Permittees" and/or "existing Facilities" exclude Iron Gate Hatchery.

B. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Permittee must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

The Notice of Intent (NOI), as shown in Attachment B, for existing and new CAAP facilities is intended to provide the Regional Water Board with information necessary for a determination of suitability for coverage or continued coverage under this General Order. The information required to be completed in the NOI in Attachment B meets the requirements for NOIs established at 40 C.F.R. section 122.25(b)(2) and satisfies the requirements for a ROWD established by Water Code section 13260. Water Code section 13260 requires a ROWD to start the application process for all WDRs and NPDES permits, except for general WDRs or general NPDES permits that use the NOI to comply or specify the use of an alternative application form designed for the permit. Submittal of the NOI is intended to replace the requirement of discharges to provide State of California Form 200 and U.S. EPA Application Forms 1 and 2B. The requirement to provide a single application form for both new and existing facilities represents a less burdensome procedure for applicants and the Regional Water Board, while requiring submittal of all necessary information pursuant to NPDES regulations at 40 C.F.R. section 122.28(b)(2) and Water Code section 13260.

To obtain coverage under this General Order, which also serves as the NPDES permit, both new and existing CAAP facilities must submit an NOI for coverage. Existing CAAP facilities (other than Iron Gate Hatchery) must submit a complete NOI within 60 days of the effective date of this General Order. New CAAP facilities that are not currently covered by an individual NPDES permit must submit an NOI, including the first annual filing fee, at least 120 days prior to the anticipated start date of the discharge. "New Sources" are defined as any facility that discharges pollutants where construction commenced after promulgation of effluent limitation guidelines (ELGs). Therefore, new aquaculture facilities that are constructed after September 22, 2004 are "new sources", as defined in 40 C.F.R. sections 122.2 and 122.29. Additional "new source" determination criteria include "*if (1) the facility is constructed at a site where no other facility is located, (2) the facility totally replaces the process or production equipment that causes the discharge of pollutants at the existing facility, or (3) the facility process is substantially independent*

of an existing facility at the same site". New sources must also comply with the California Environmental Quality Act (CEQA).

Existing Permittees who fail to submit a complete NOI by the deadline established herein will be deemed as out of compliance with the General Order and subject to all penalties allowable pursuant to applicable provisions of the Clean Water Act and the Water Code, including section 13261 thereof. New discharges will not be authorized until a complete NOI has been submitted to the Regional Water Board and the Executive Officer has given notice of authorization of coverage.

The NOI, as detailed in Attachment B, requires the submittal of the following information and data:

1. General information about the Permittee(s) and facility.

2. Location map.

3. Operations and production information, including description of system type (e.g., flow-through, recirculating, or pond system), rearing units, treatment units, operation duration, and species and annual production amounts.

4. Flow diagram.

5. Water source information, including minimum and maximum flows, period of use, and description of how the intake water is altered.

6. Wastewater characterization for each discharge point to surface waters, including description of source, frequency, duration, volume of discharge; location of discharge; and effluent monitoring for the priority pollutants identified by the California Toxics Rule (CTR) at 40 C.F.R. section 131.8.

7. Receiving water characterization, including name, hydrologic unit, pollutants for which the waterbody is impaired pursuant to the Clean Water Act 303(d) list (see www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls), and applicable water quality objectives from Table 3-1 of the Basin Plan.

8. Feed use information.

9. Aquaculture drug and chemical use information.

10. Annual filing fee. The State Water Board has determined that individual or general permits for aquaculture activities (including fish hatcheries) will be subject to the same annual fee, currently $2,062 (State Water Board 2015-2016 Fee Schedule).

B. General Order Coverage

Upon review of the NOI, the Executive Officer shall determine the applicability of this General Order to the CAAP facility discharge(s). If the CAAP facility is deemed eligible for coverage, the Executive Officer shall issue a Notice of Applicability (NOA) to the facility. The NOA will contain an individual general permit number and serve to notify the CAAP facility that the discharge is authorized under the terms and conditions of this General Order. Once the Permittee has received the NOA, this General Order shall supersede any previous Order applicable to surface water discharges from the facility except for enforcement purposes. The NOA may specify additional site-specific monitoring and reporting requirements. For existing CAAP facilities, the NOA shall serve to rescind coverage under the existing NPDES permit. A new discharge (new source) for which coverage under this General Order is being sought shall not commence until after receiving the Executive Officer's written NOA or until the Regional Water Board has issued an individual NPDES permit for the discharge.

The Regional Water Board may require any facility requesting coverage under this General Order to apply for and obtain an individual NPDES permit in accordance with 40 C.F.R. section

122.28(b)(3)(i). CAAP facilities that discharge to a Clean Water Act section 303(d) listed waterbody, or a waterbody subject to one or more applicable Total Maximum Daily Loads (TMDLs) will be evaluated on a case-by-case basis for coverage under this General Order or coverage under an individual permit.

In accordance with 40 C.F.R. section 122.28(b)(3)(iii), any facility may request to be excluded from coverage under a general NPDES permit by applying for an individual NPDES permit. The facility must provide justification supporting the request for an individual NPDES permit and reasons why coverage under this General Order is not appropriate. Upon receipt of the request, the Executive Officer shall determine if an individual NPDES permit should be issued.

The CAAP facility is subject to the terms and conditions of this General Order and is responsible for submitting the annual fee associated with this General Order until a written request for official termination of coverage is made to and is received by the Regional Water Board. If the Regional Water Board issues an individual NPDES permit or WDRs with more specific requirements to a CAAP facility, the applicability of this General Order is automatically terminated on the effective date of the individual permit.

III. FACILITY DESCRIPTION

The existing CAAP facilities are operated to mitigate the loss of fish habitat above constructed dams and/or for recreational stocking purposes. CAAP facilities are constructed to simulate natural cold water streams and are used to produce cold water fish species, typically trout or salmon. Fresh water is usually supplied to CAAP facilities by springs or surface water diversions. Fresh water continuously enters the headworks of the CAAP facility and passes through a series of aquatic animal production units (e.g., a series of holding tanks, ponds or raceways). Wastewater from these production units can be treated in settling basins or discharged directly to surface waters or percolation ponds prior to discharge. Fish rearing operations at a typical CAAP facility can consist of fish spawning, egg incubation, hatching structures, and rearing areas.

Annual fish production at the existing CAAP facilities ranges from approximately 135,000 pounds to 650,000 pounds of fish per year. Average effluent flow rates from these facilities range from approximately 7.1 million gallons per day (MGD) to 61 MGD.

A. Description of Wastewater and Biosolids Treatment and Controls

The operation of CAAP facilities may introduce a variety of pollutants into receiving waters. The NPDES permit program regulates three classes of pollutants: 1) conventional pollutants (i.e., total suspended solids (TSS), oil and grease, biochemical oxygen demand (BOD), fecal coliform organisms, and pH); 2) toxic pollutants (e.g., metals such as copper, lead, nickel, and zinc); and 3) non-conventional pollutants (e.g., contaminants of emerging concern (CECs), ammonia, formalin, and phosphorus). Pollutants in all three of these categories are discharged from CAAP facilities. The most significant of these pollutants are solids from fish feces and uneaten feed that settle to the bottom of the raceways. Both of these types of solids are primarily composed of organic matter including BOD, organic nitrogen, and organic phosphorus. Raceway cleaning wastewater is diverted at some CAAP facilities to settling basins prior to discharge to surface waters.

Fish raised in CAAP facilities may become vulnerable to disease and parasite infestations. Various aquaculture drugs and chemicals are used periodically at CAAP facilities to ensure the health and productivity of the confined fish population, as well as to maintain production efficiency. Aquaculture drugs and chemicals are used to clean raceways and to treat fish for parasites, fungal growths and bacterial infections. Aquaculture drugs and chemicals are also used to anesthetize fish prior to spawning or prior to the annual “tagging” process.

B. Discharge Points and Receiving Waters

Effluent discharges and receiving waters for the existing CAAP facilities are described in the following table:

Table F-2. Discharge Points and Receiving Waters for Existing CAAP Facilities

Facility	Receiving Water	Discharge Point	Discharge Description
Coyote Valley Fishery Mitigation Facility	Russian River	001	Sedimentation pond
Mad River Fish Hatchery	Mad River	001	Fish ladder
		002	Spawning/hatchery building
		003	Settling basins[1]
		004	Fish release water
Trinity River Salmon and Steelhead Hatchery	Trinity River	001	Fish ladder
		002	Hatchery building
		003	Settling basin
		004	Production ponds
Warm Springs Fish Hatchery	Dry Creek, tributary to the Russian River	001(a)	Pollution control pond
		001(b)	Fish ladder
		003	Pollution control pond flood control pump
		004	Pollution control pond control overflow culvert

Table Notes:
1. Represents discharges from the production ponds to the settling basins. Direct discharges to surface waters from the production ponds and the settling basins are not permitted by Order No. R1-2005-0036.

C. Summary of Existing Requirements

1. Effluent limitations contained in the individual Orders for the existing CAAP facilities are as follows:

Table F-3. Historic Effluent Limitations for Existing CAAP Facilities

Parameter	Units	Facility	Effluent Limitations	
			Average Monthly	Maximum Daily
Total Suspended Solids (TSS)	mg/L	Coyote Valley Fishery Mitigation Facility	8[1]	15[1]
		Mad River Fish Hatchery	8	15
		Trinity River Salmon and Steelhead Hatchery	8[1]	15[1]
		Warm Springs Fish Hatchery	8[1]	15[1]
	lbs/day[2]	Coyote Valley Fishery Mitigation Facility	475[1]	890[1]
		Mad River Fish Hatchery	138	259
		Trinity River Salmon and Steelhead Hatchery (002)	334[1]	626[1]
		Warm Springs Fish Hatchery	1,035[1]	1,940[1]
Settleable Solids	ml/L	Coyote Valley Fishery Mitigation Facility	0.1[1]	0.2[1]
		Mad River Fish Hatchery	0.1	0.2
		Trinity River Salmon and Steelhead Hatchery	0.1[1]	0.2[1]
		Warm Springs Fish Hatchery	0.1[1]	0.2[1]

Parameter	Units	Facility	Effluent Limitations	
			Average Monthly	Maximum Daily
pH	pH units	Mad River Fish Hatchery	Not less than 6.5 nor greater than 8.5	
		Trinity River Salmon and Steelhead Hatchery	Not less than 6.5 nor greater than 8.5	
Chloride	mg/L	Coyote Valley Fishery Mitigation Facility	---	250[1]
		Warm Springs Fish Hatchery	---	250[1]
Chronic Toxicity	TUc	Mad River Fish Hatchery	[3]	---

Table Notes:

1. This limitation represents an allowable incremental increase above that concentration present in the influent water. The concentration of constituents in the influent shall be subtracted from the final effluent concentration for the purpose of applying this effluent limitation.
2. The daily discharge (lbs/day) is obtained from the following calculation for any calendar day:
   Daily Discharge (lbs/day) = $\frac{8.34}{N}\sum_{i}^{N} Q_i C_i$
   in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample; and Q_i is the average flow rate occurring during the period over which samples are composited.
3. Not more than 10 percent of critical life stage chronic toxicity bioassay determinations in any calendar year shall produce statistically significant deleterious effects to any test organism from exposure to undiluted effluent.

D. Compliance Summary

An Administrative Civil Liability Complaint (Complaint) was issued on August 29, 2005 to DFW for the Trinity River Salmon and Steelhead Hatchery assessing administrative civil liability for failure to file two quarterly reports in a timely manner. The Complaint alleged: five (5) serious violations subject to mandatory minimum penalties for violations occurring during the complaint period.

The other existing CAAP facilities did not experience any violations of the effluent limitations or permit requirements during their respective permit terms.

E. Planned Changes – Not Applicable

IV. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this General Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This General Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This General Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.

40 C.F.R. section 122.28 authorizes the U.S. EPA and approved states to issue general permits to regulate a point source category, if the sources:

1. Involve the same or substantially similar types of operations;

2. Discharge the same type of waste;

3. Require the same type of effluent limitations or operating conditions;

4. Require similar monitoring; and

5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, U.S. EPA granted the State of California, through the State Water Board and Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of division 13 of the Public Resources Code.

For any "new source"[1], compliance with CEQA must be achieved before an NOA for coverage under this General Order can be issued for the CAAP facility.

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the North Coast Region* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan at section 2, Beneficial Uses, states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, beneficial uses applicable to the Russian River, the Mad River, the Trinity River, and area groundwater, are as follows:

Table F-4. Basin Plan Beneficial Uses

Beneficial Use(s)	Receiving Water Name (Hydrologic Subarea)			
	Russian River (Coyote Valley and Warm Springs)	Mad River (Blue Lake)	Trinity River (Douglas City)	Groundwater
Municipal and Domestic Water Supply (MUN)	Existing	Existing	Existing	Existing
Agricultural Supply (AGR)	Existing	Existing	Existing	Existing
Industrial Service Supply (IND)	Existing	Existing	Existing	Existing
Industrial Process Supply (PRO)	Potential	Existing	Potential	Potential
Groundwater Recharge (GWR)	Existing	Existing	Existing	---
Freshwater Replenishment (FRESH)	Existing	Existing	Existing	---
Navigation (NAV)	Existing	Existing	Existing	---
Hydropower Generation (POW)	Existing	Potential	Potential	---
Water Contact Recreation (REC-1)	Existing	Existing	Existing	---
Non-contact Water Recreation (REC-2)	Existing	Existing	Existing	---

[1] A "new source" is a discharge type for which U.S. EPA has issued New Source Performance Standards. A "new source" does not mean a new discharge. See also section II.A of this Fact Sheet.

Beneficial Use(s)	Receiving Water Name (Hydrologic Subarea)			
	Russian River (Coyote Valley and Warm Springs)	**Mad River (Blue Lake)**	**Trinity River (Douglas City)**	**Groundwater**
Commercial and Sport Fishing (COMM)	Existing	Existing	Existing	---
Warm Freshwater Habitat (WARM)	Existing	---	---	---
Cold Freshwater Habitat (COLD)	Existing	Existing	Existing	---
Preservation of Areas of Special Biological Significance (ASBS)	---	---	---	---
Inland Saline Water Habitat (SAL)	---	---	---	---
Wildlife Habitat (WILD)	Existing	Existing	Existing	---
Preservation of Rare, Threatened, or Endangered Species (RARE)	Existing	Existing	Existing	---
Marine Habitat (MAR)	---	Potential	---	---
Migration of Aquatic Species (MIGR)	Existing	Existing	Existing	---
Spawning, Reproduction, and/or Early Development (SPWN)	Existing	Existing	Existing	---
Shellfish Harvesting (SHELL)	---	---	---	---
Estuarine Habitat (EST)	---	Existing	---	---
Aquaculture (AQUA)	Potential (Coyote Valley) Existing (Warm Springs)	Existing	Potential	Potential
Native American Culture (CUL)	---	Existing	---	Existing
Flood Peak Attentuation/Flood Water Storage (FLD)	---	---	---	---
Wetland Habitat (WET)	---	---	---	---
Water Quality Enhancement (WQE)	---	---	---	---

The Basin Plan includes waste discharge prohibitions which prohibit point source discharges to the Klamath River and its tributaries, including the Trinity River, year-round and to the Mad River and Russian River during the period May 15 through September 30 and during all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow. These prohibitions are applicable except as stipulated in action plans and policies contained in the Point Source Measures section of the Basin Plan. As described in section IV.E.2 of this Fact Sheet, the discharges authorized by this General Order are consistent with the Basin Plan's *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations*. Therefore, this General Order authorizes discharges to the Trinity, River, Mad River and Russian River year-round.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this General Order implement the SIP.

4. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16. If, however, the Regional Water Board, subsequent to review of any NOI, finds that the impact of a discharge will not be consistent, then authorization for coverage under this General Order will be denied and coverage under an individual permit will be required (including preparation of an antidegradation analysis).

5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

6. **Endangered Species Act Requirements.** This General Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This General Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. Each Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies, to U.S. EPA by April of each even numbered year. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for

developing a control plan to address the impairment. U.S. EPA requires the Regional Water Board to develop TMDLs for each 303(d) listed pollutant and water body contaminant. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine waste load allocations (the portion of a TMDL allocated to existing and future point sources) for point sources and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources) for nonpoint sources.

On October 11, 2011 U.S. EPA gave final approval to the 2008-2010 303(d) list of impaired water bodies prepared by the State. As described below, each of the water bodies to which the existing CAAP facilities discharge is listed as impaired on the 2010 303(d) list of impaired water bodies.

1. **Russian River.** The Russian River within the Warm Springs Hydrologic Subarea (HSA) and the Coyote Valley HSA is listed as impaired for sedimentation/siltation and temperature on the 2010 303(d) list of impaired water bodies. Regional Water Board staff is currently developing TMDLs for sedimentation/siltation and temperature for the Russian River, which are scheduled for completion in 2019.

   Aspects of the sediment impairing the Russian River include settleable solids, TSS, and turbidity. The impact of settleable solids results when they collect on the bottom of a water body over time, making them a persistent or accumulative constituent. The impact of suspended solids and turbidity, by contrast, results from their concentration in the water column.

   An analysis of effluent monitoring data from the Coyote Valley Fishery Mitigation Facility and the Warm Springs Fish Hatchery indicates that the discharges do not typically contain sediment (e.g., settleable solids, suspended solids, and turbidity) at elevated levels. This General Order includes technology-based effluent limitations for settleable solids and TSS, and requires Permittees to implement best management practices (BMPs) to prevent or minimize the generation and discharge of wastes and pollutants to waters of the United States, including operational requirements for solids control.

   The 303(d) listing for the Russian River lists sources of elevated temperature as flow regulation/modification, habitat modifications, nonpoint sources, and removal of riparian vegetation. Receiving water data upstream and downstream of the Coyote Valley Fishery Mitigation Facility and the Warm Springs Fish Hatchery are not available; however, discharges from the facilities are not expected to have the reasonable potential to cause, or contribute to increases in temperatures in the Russian River. This General Order includes receiving water limitations for temperature based on the Basin Plan water quality objectives, and requires effluent and receiving water monitoring for temperature to assess the impact of the discharge on the receiving water.

2. **Mad River.** The Mad River is listed for sedimentation/siltation, temperature, and turbidity. On December 21, 2007, U.S. EPA established the *Mad River Total Maximum Daily Loads for Sediment and Turbidity*. The TMDL identified that almost all sources of sediment in the Mad River watershed are from diffuse, nonpoint sources. Sediment is the pollutant for both the sediment and the turbidity TMDLs. Turbidity can be measured directly in the stream, but the pollutant causing the exceedance of the turbidity water quality standards in the Mad River watershed is fine sediment, or the suspended sediment load.

   The TMDL identifies the Mad River Fish Hatchery as a point source of sediment and suspended sediment. Section 3.2.2 of the TMDL specifies waste load allocations for TSS of 8 mg/L and for settleable solids of 0.1 mg/L. The TMDL expressed the waste load allocation for turbidity as "*no net increases in turbidity in receiving water greater than 20 percent over naturally occurring background level.*" The waste load allocations for TSS and settleable solids were developed using limitations for these substances from the existing NPDES

permit for the Mad River Fish Hatchery. The waste load allocation for turbidity was derived from the water quality objective for turbidity in the Basin Plan. This General Order includes effluent limitations for TSS and settleable solids consistent with the TMDL. This General Order also includes a receiving water limitation for turbidity based on the Basin Plan objective. The receiving water limitation for turbidity is an appropriate mechanism to implement the waste load allocation because the allocation is the net increase in receiving water turbidity over naturally occurring background levels. In addition, this General Order contains requirements to implement BMPs, including operational requirements for solids control, which will further reduce sediment discharges from the hatchery. The effluent limitations for TSS and settleable solids, receiving water limitation for turbidity, and the BMP requirements in this General Order are consistent with the Mad River TMDL.

3. **Trinity River.** The Trinity River within the Middle Hydrologic Area is listed for sedimentation/siltation. On December 20, 2001, U.S. EPA established the *Trinity River Total Maximum Daily Load for Sediment*. The TMDL identified that almost all sources of sediment in the Trinity River watershed are from diffuse, nonpoint sources. The TMDL established waste load allocations for point sources identical to the load allocations for nonpoint sources according to subarea. Section 5.2 of the TMDL states, *"Although nonpoint sources are responsible for most sediment loading in the watershed, point sources may also discharge some sediment in the watershed. Current and prospective future point sources that may discharge in the watershed and are therefore at issue in this TMDL include: CalTrans facilities that discharge pursuant to the CalTrans' statewide NPDES permit issued by the State Water Resources Control Board, and [c]onstruction sites larger than 5 acres that discharge pursuant to California's NPDES general permit for construction site runoff."* The TMDL does not identify the Trinity River Salmon and Steelhead Hatchery as a point source subject to specific waste load allocations. Nevertheless, this General Order is consistent with the TMDL because it includes technology-based effluent limitations for TSS and settleable solids and contains requirements to implement BMPs, including operational requirements for solids control.

E. Other Plans, Policies and Regulations

1. **Storm Water**. Coverage under the State Water Board Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (Industrial Storm Water General Permit) is not required for CAAP facilities.

2. **Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations.** The Basin Plan includes the *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations*, which establishes the following criteria applicable to discharges from fish hatcheries, rearing facilities, and aquaculture operations:

   a. The discharge shall not adversely impact the recognized existing and potential beneficial uses of the receiving waters.

   b. The discharge of waste resulting from cleaning activities shall be prohibited.

   c. The discharge of detectable levels of chemicals used for the treatment and control of disease, other than salt (NaCl) shall be prohibited.

   d. The discharge will be subject to review by the Regional Water Board for possible issuance of Waste Discharge Requirements/NPDES permit.

   e. The Regional Water Board may waive WDRs for fish hatcheries, fish rearing, and aquaculture facilities, provided that the discharge complies with applicable sections of the Basin Plan and satisfies the conditions for waiver which are described in Regional Water Board Resolution No. 87-113.

f. The public interest is served by the fish hatchery, rearing facility, or aquaculture operation.

Requirements of this General Order implement the *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations*. In lieu of establishing numeric effluent limitations or detection levels, ensure compliance with the *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations* and demonstrate that discharges are protective of aquatic life and other beneficial uses, section X.C.2.a of the Order and section VIII of the NOI (Attachment B) require chronic toxicity test information and calculation of effluent concentrations for all chemicals and drugs applied in solution for immersive treatment.

3. **Regulations for Use of Aquaculture Drugs and Chemicals.** CAAP facilities produce fish and other aquatic animals in greater numbers than natural stream conditions would allow; therefore, system management is important to ensure that fish do not become overly stressed, making them more susceptible to disease outbreaks. The periodic use of various aquaculture drugs and chemicals is needed to ensure the health and productivity of cultured aquatic stocks and to maintain production efficiency. It is the responsibility of those using, prescribing, or recommending the use of these products to know which aquaculture drugs and chemicals may be used in CAAP facilities under all applicable federal, State, and local regulations and which aquaculture drugs and chemicals may be discharged to waters of the United States and waters of the State in accordance with this General Order.

   Drugs and chemicals used in aquaculture are strictly regulated by the U.S. Food and Drug Administration (FDA) through the Federal Food, Drug, and Cosmetic Act (FFDCA; 21 U.S.C 301 - 392). FFDCA, the basic food and drug law of the United States, includes provisions for regulating the manufacture, distribution, and the use of, among other things, new animal drugs and animal feed. FDA's Center for Veterinary Medicine (CVM) regulates the manufacture, distribution, and use of animal drugs. CVM is responsible for ensuring that drugs used in food-producing animals are safe and effective and that food products derived from treated animals are free from potentially harmful residues. CVM approves the use of new animal drugs based on data provided by a sponsor (usually a drug company). To be approved by CVM, an animal drug must be effective for the claim on the label, and safe when used as directed for 1) treated animals; 2) persons administering the treatment; 3) the environment, including non-target organisms; and 4) consumers. CVM establishes tolerances and animal withdrawal periods as needed for all drugs approved for use in food-producing animals. CVM has the authority to grant investigational new animal drug (INAD) exemptions so that data can be generated to support the approval of a new animal drug.

   CAAP facilities may legally obtain and use aquaculture drugs in one of several ways. Some aquaculture drugs and chemicals used at CAAP facilities in the North Coast Region are approved by the FDA for certain aquaculture uses on certain aquatic species. Others have an exemption from this approval process when used under certain specified conditions. Others are not approved for use in aquaculture, but are considered to be of "low regulatory priority" by FDA (hereafter "LRP drug"). FDA is unlikely to take regulatory action related to the use of a LRP drug if an appropriate grade of the chemical or drug is used, good management practices are followed, and local environmental requirements are met (including NPDES permit requirements). Finally, some drugs and chemicals may be used for purposes, or in a manner not listed on their label (i.e., "extra-label" use), under the direction of licensed veterinarians for the treatment of specific fish diseases diagnosed by fish pathologists. It is assumed that veterinarian-prescribed aquaculture drugs are used only for short periods of duration during acute disease outbreaks. Each of these methods of obtaining and using aquaculture drugs is discussed in further detail below.

a. **FDA-approved New Animal Drugs**. Approved new animal drugs have been screened by the FDA to determine whether they cause significant adverse public health or environmental impacts when used in accordance with label instructions. Currently, there are eight new animal drugs approved by FDA for use in food-producing aquatic species. These eight FDA-approved new animal drugs include the following:

   i. Chorionic gonadrotropin (Chlorulun®), used for spawning;
   ii. Oxytetracycline (Terramycin®), an antibiotic;
   iii. Sulfadimethoxine - ormetoprim (Romet - 30®), an antibiotic;
   iv. Tricaine methanesulfonate (MS-222, Finquel® and Tricaine-S), an anesthetic;
   v. Formalin (Formalin-F®, Paracide F® and PARASITE-S®), used as a fungus and parasite treatment;
   vi. Sulfamerazine, an antibiotic;
   vii. Florfenicol (Aquaflor), an antibiotic; and
   viii. Hydrogen peroxide, used to control fungal and bacterial infections.

   Each aquaculture drug in this category is approved by the FDA for use on specific fish species, for specific disease conditions, at specific dosages, and with specific withdrawal times. Product withdrawal times must be observed to ensure that any product used on aquatic animals at a CAAP facility does not exceed legal tolerance levels in the animal tissue. Observance of the proper withdrawal time helps ensure that products reaching consumers are safe and wholesome.

   FDA-approved new animal drugs that are added to aquaculture feed must be specifically approved for use in aquaculture feed. Drugs approved by FDA for use in feed must be found safe and effective. Approved new animal drugs may be mixed in feed for uses and at levels that are specified in FDA medicated - feed regulations only. It is unlawful to add drugs to feed unless the drugs are approved for such feed use. For example, producers may not top-dress feed with water-soluble, over-the-counter antibiotic product. Some medicated feeds, such as Romet-30®, may be manufactured only after the FDA has approved a medicated-feed application (FDA Form 1900) submitted by the feed manufacturer.

b. **FDA Investigational New Animal Drugs (INAD)**. Aquaculture drugs in this category can only be used under an investigational new animal drug or "INAD" exemption. INAD exemptions are granted by CVM to permit the purchase, shipment and use of an unapproved new animal drug for investigational purposes. INAD exemptions are granted by CVM with the expectation that meaningful data will be generated to support the approval of a new animal drug by FDA in the future. Numerous FDA requirements must be met for the establishment and maintenance of aquaculture INADs.

   There are two types of INADs: standard and compassionate. Aquaculture INADs, most of which are compassionate, consist of two types: routine and emergency. A compassionate INAD exemption is used in cases in which the aquatic animal's health is of primary concern. In certain situations, producers can use unapproved drugs for clinical investigations (under a compassionate INAD exemption) subject to FDA approval. In these cases, CAAP facilities are used to conduct closely monitored clinical field trials. FDA reviews test protocols, authorizes specific conditions of use, and closely monitors any drug use under an INAD exemption. An application to renew an INAD exemption is required each year. Data recording and reporting are required under the INAD exemption in order to support the approval of a new animal drug or an extension of approval for new uses of the drug.

c. **FDA Unapproved New Animal Drugs Of Low Regulatory Priority (LRP drugs)**. LRP drugs do not require a new animal drug application (NADA) or INAD exemptions from FDA. Further regulatory action is unlikely to be taken by FDA on LRP drugs as long as

an appropriate grade of the drug or chemical is used, good management practices are followed, and local environmental requirements are met (such as NPDES permit requirements contained in this General Order). LRP drugs commonly used at CAAP facilities in the North Coast Region include the following:

i. Acetic acid, a parasiticide;

ii. Carbon dioxide gas, an anesthetic;

iii. Povidone iodine (PVP) compounds, a fish egg disinfectant;

iv. Sodium bicarbonate (baking soda), an anesthetic;

v. Sodium chloride (salt), an osmoregulatory aid for the relief of stress and prevention of shock; and

vi. Copper sulfate[2] and potassium permanganate are LRP but regulatory action has been deferred pending further study.

FDA is unlikely to object at present to the use of these LRP drugs if the following conditions are met:

i. The aquaculture drugs are used for the prescribed indications, including species and life stages where specified.

ii. The aquaculture drugs are used at the prescribed dosages.

iii. The aquaculture drugs are used according to good management practices.

iv. The product is of an appropriate grade for use in food animals.

v. An adverse effect on the environment is unlikely.

FDA's enforcement position on the use of these substances should be considered neither an approval nor an affirmation of their safety and effectiveness. Based on information available in the future, FDA may take a different position on their use. In addition, FDA notes that classification of substances as new animal drugs of LRP does not exempt CAAP facilities from complying with all other federal, state and local environmental requirements, including compliance with this General Order.

d. Extra-Label Use Of An Approved New Animal Drug. Extra-label drug use is the actual or intended use of an approved new animal drug in a manner that is not in accordance with the approved label directions. This includes, but is not limited to, use on species or for indications not listed on the label. Only a licensed veterinarian may prescribe extra-label drugs under CVM's extra-label drug use policy. CVM's extra-label use drug policy (CVM Compliance Policy Guide 7125.06) states that licensed veterinarians may consider extra-label drug use in treating food-producing animals if the health of the animals is immediately threatened and if further suffering or death would result from failure to treat the affected animals. CVM's extra-label drug use policy does not allow the use of drugs to prevent diseases (prophylactic use), improve growth rates, or enhance reproduction or fertility. Spawning hormones cannot be used under the extra-label policy. In addition, the veterinarian assumes the responsibility for drug safety and efficacy and for potential residues in the aquatic animals.

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[2] In an August 3, 2011 memorandum, *Prohibition of Copper Sulfate and Copper Based Compounds at DFG Operated Fish Hatcheries*, DFW imposed a ban of copper sulfate and copper-based compounds at all DFW hatcheries in accordance with their Hatchery and Stocking Program EIR/EIS.

V. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source Permittees to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A.** The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.

   This prohibition is based on the Basin Plan and State Water Board Order No. WQO-2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order No. WQO 2002-0012, the State Water Board found that this prohibition is acceptable in orders, but should be interpreted to apply only to constituents that are either not disclosed by the Permittee, or are not reasonably anticipated to be present in the discharge but have not been disclosed by the Permittee. It specifically does not apply to constituents in the discharge that do not have "reasonable potential" to exceed water quality objectives.

   The State Water Board has stated that the only pollutants not covered by this prohibition are those which were "*disclosed to the permitting authority and … can be reasonably contemplated*." [In re the Petition of East Bay Municipal Utilities District et al., (State Water Board, 2002) Order No. WQO 2002-0012, p. 24] In that Order, the State Water Board cited a case which held the Permittee is liable for the discharge of pollutants "*not within the reasonable contemplation of the permitting authority ….whether spills or otherwise*…" [Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland (4th Cir. 2001) 268 F. 3d 255, 268.] Thus the State Water Board authority provides that, to be permissible, the constituent discharged 1) must have been disclosed by the Permittee and 2) can be reasonably contemplated by the Regional Water Board.

   Whether or not the Permittee reasonably contemplates the discharge of a constituent is not relevant. What matters is whether the Permittee disclosed the constituent to the Regional Water Board or whether the presence of the pollutant in the discharge can otherwise be reasonably contemplated by the Regional Water Board at the time of Order adoption.

2. **Discharge Prohibition III.B.** Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code, is prohibited.

   This prohibition is based on section 13050 of the Water Code.

3. **Discharge Prohibition III.C.** The discharge of waste to land that is not under the control of the Permittee is prohibited, except as authorized under section X.C.6.a. of this General Order (Solids Disposal and Handling Requirements).

   Land used for the application of wastewater must be owned by, or be under the control of, the Permittee by contract so that the Permittee maintains a means for ultimate disposal of treated wastewater.

4. **Discharge Prohibition III.D.** The discharge of waste at any point not described in the NOA or authorized by permit issued by the State Water Board or another Regional Water Board Order is prohibited.

This prohibition is a general prohibition that allows the Permittee to discharge waste only in accordance with WDRs. It is based on sections 301 and 402 of the federal CWA and section 13263 of the Water Code.

5. **Discharge Prohibition III.E.** The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited under Water Code section 13375.

   This prohibition is a general prohibition that allows the Permittee to discharge waste only in accordance with WDRs. It is based on section 13375 of the Water Code.

6. **Discharge Prohibition III.F.** The discharge of waste resulting from cleaning activities is prohibited.

   This prohibition applies to the direct discharge of untreated cleaning waste to waters of the United States and is based on the Basin Plan's *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations*.

7. **Discharge Prohibition III.G.** The discharge detectable levels of chemicals used for the treatment and control of disease, other than salt (NaCl), is prohibited.

   This prohibition is based on the Basin Plan's *Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations*. Based on information provided by the existing CAAP facilities in the North Coast Region, chemicals and aquaculture drugs used for the treatment and control of disease include oxytetracycline, penicillin G, florfenicol, amoxicillin trihydrate, erythromycin, Romet, formalin, PVP iodine, hydrogen peroxide, potassium permanganate, sodium chloride, acetic acid, chloramine-T, SLICE, and ivermectin. When chemicals and aquaculture drugs used for the treatment and control of disease are used, the Permittee is required to submit a chemical use report documenting the method used to determine compliance with this prohibition.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this General Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for the Concentrated Aquatic Animal Production Point Source Category in 40 C.F.R. part 451 and Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a

two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

a. Best Management Practices (BMP) Plan. On August 23, 2004, U.S. EPA published ELGs for the Flow-Through and Recirculating Systems Subcategory of the Concentrated Aquatic Animal Production Point Source Category at 40 C.F.R. part 451, subpart A. The ELGs became effective on September 22, 2004. The ELGs establish national technology-based effluent discharge requirements for CAAP facilities that produce 100,000 pounds or more of aquatic animals in flow-through and recirculation systems based on BPT, BCT, BAT and NSPS. In its proposed rule, published on September 12, 2002, U.S. EPA proposed to establish numeric limitations for TSS while controlling the discharge of other constituents through narrative requirements. In the final rule, however, U.S. EPA determined that, for a nationally applicable regulation, it would be more appropriate to promulgate qualitative TSS limitations in the form of solids control BMP requirements.

In the process of developing the ELG, U.S. EPA identified an extensive list of pollutants of concern in discharges from the aquaculture industry, including several metals, nutrients, solids, BOD, bacteria, drugs, and residuals of federally registered pesticides. U.S. EPA did not include specific numeric limitations in the ELG for any pollutants on this list, believing that BMPs would provide acceptable control of these pollutants. U.S. EPA did conclude during the development of the ELG that control of TSS would also effectively control concentrations of other pollutants of concern, such as BOD, metals and nutrients, because other pollutants are either bound to the solids or are incorporated into them. And, although certain bacteria are found at high levels in effluents from settling basins, U.S. EPA concluded that disinfection is not economically achievable. U.S. EPA also allowed permitting authorities to apply technology-based limits for other pollutants and WQBELs for pollutants considered in the ELGs in order to comply with applicable water quality standards.

The ELGs at 40 C.F.R. part 451, subpart A require implementation of BMPs, including solids control, materials storage, structural maintenance, recordkeeping, and training requirements, to represent the application of BPT. Consistent with the ELGs at 40 C.F.R. part 451, subpart A, Special Provision X.C.3.a of this General Order requires Permittees to maintain a BMP Plan.

b. TSS and Settleable Solids. Technology-based requirements in this General Order are based on numeric limitations developed using BPJ and retained from the individual permits for the existing CAAP facilities. The effluent limitations retained in this General Order for TSS are 8 mg/L as an average monthly effluent limitation (AMEL) and 15

mg/L as a maximum daily effluent limitation (MDEL); and for settleable solids are 0.1 ml/L as an AMEL and 0.2 ml/L as an MDEL. Section 402(o) of the CWA prohibits backsliding of effluent limitations that are based on BPJ to reflect a subsequently promulgated ELG which is less stringent. Removal of the numeric limitations for TSS and settleable solids would constitute backsliding under CWA Section 402(o). These limitations were established prior to the issuance of the ELGs and were established as a means of controlling the discharge of solids from algae, silt, fish feces and uneaten feed. Except for the NPDES permit for the Mad River Fish Hatchery, the individual NPDES permits for the existing CAAP facilities expressed effluent limitations for TSS and settleable solids in terms of a net increase limitation. The Regional Water Board finds the use of net increase TSS and settleable solids effluent limitations are an appropriate measure of performance. Results of monitoring required by the individual NPDES permits indicates that the existing CAAP facilities are capable of meeting these limitations.

Existing wastewater treatment technology (such as settling basins and vacuum cleaning) is capable of dependably removing solids (primarily fish feces and uneaten feed) from CAAP facility effluent prior to discharge. Some CAAP facilities treat their entire discharge using a full-flow settling basin, while some include additional settling basins in series. Other CAAP facilities use lower flow rates through raceways, allowing solids to accumulate and decompose by natural processes. In some cases, all of the raceway flows are transferred to one or more large settling basins for "off-line settling". Finally, some CAAP facilities place barriers in the lower portion of each raceway to create a "quiescent zone". This quiescent zone allows solids to settle at the end of each raceway, which are collected and removed by facility staff. Existing self-monitoring data show that CAAP facilities in the Region are able to reliably meet the numeric effluent limitations for TSS and settleable solids using existing wastewater treatment and control technologies, and implementation of BMPs.

c. **Flow.** This General Order does not contain a maximum daily effluent discharge flow limitation. A maximum daily effluent flow limitation will be specified in the NOA issued by the Executive Officer for each facility seeking coverage under this General Order.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) of 40 C.F.R. requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other

state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

   a. **Beneficial Uses.** Beneficial use designations for receiving waters are presented in section IV.C.1 of this Fact Sheet.

   b. **Basin Plan Water Quality Objectives.** In addition to the specific water quality objectives indicated above, the Basin Plan contains narrative objectives for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, bacteria, temperature, toxicity, pesticides, chemical constituents, and radioactivity that apply to inland surface waters, enclosed bays, and estuaries. For waters designated for use as domestic or municipal supply (MUN), the Basin Plan establishes as applicable water quality criteria the Maximum Contaminant Levels (MCLs) established by the State Water Board, Division of Drinking Water (DDW) for the protection of public water supplies at Cal. Code Regs., tit. 22 § 64431 (Inorganic Chemicals) and § 64444 (Organic Chemicals).

   c. **SIP, CTR and NTR**. Water quality criteria and objectives applicable to the receiving waters are established by the California Toxics Rule (CTR), established by the U.S. EPA at 40 C.F.R. section 131.38; and the National Toxics Rule (NTR), established by the U.S. EPA at 40 C.F.R. § 131.36. Criteria for most of the 126 priority pollutants are contained within the CTR and the NTR.

      The SIP, which is described in section IV.C.3 of this Fact Sheet, includes procedures for determining the need for, and the calculation of, WQBELs and requires Permittees to submit data sufficient to do so.

      At Cal. Code Regs., tit. 22, division 4, chapter 15, DDW has established MCLs for certain pollutants for the protection of drinking water. Chapter 3 of the Basin Plan establishes these MCLs as water quality objectives applicable to receiving waters with the beneficial use designation of municipal and domestic supply.

      Aquatic life freshwater and saltwater criteria are identified as criterion maximum concentrations (CMC) and criterion continuous concentrations (CCC). The CTR defines the CMC as the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects and the CCC as the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The CMC is used to calculate an acute or 1-hour average numeric effluent limitation and the CCC is used to calculate a chronic or 4-day average numeric effluent limitation. Aquatic life freshwater criteria were used for the RPA.

      Human health criteria are further identified as "water and organisms" and "organisms only." "Water and organism" criteria are designed to address risks to human health from multiple exposure pathways. The criteria from the "water and organisms" column of CTR were used for the RPA because the Basin Plan identifies that the receiving waters have an existing or potential beneficial use designation of municipal and domestic supply.

3. **Determining the Need for WQBELs**

   NPDES regulations at 40 C.F.R. section 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.

a. **Non-Priority Pollutants**

i. **Chloride.** Order Nos. 97-60 and 97-61 for the Coyote Valley Fishery Mitigation Facility and the Warm Springs Fish Hatchery, respectively, established MDELs for chloride of 250 mg/L. The Orders did not document the basis of the effluent limitations; however, the effluent limitations are consistent with the Secondary MCL for chloride of 250 mg/L established at Cal. Code Regs., tit. 22, division 4, chapter 15, § 64449.

Sodium chloride (NaCl or salt) is used as need at CAAP facilities as a fish-cleansing agent to control parasites and fish disease, and as an osmoregulatory aid to reduce stress amongst the confined fish population. Salt usage is generally restricted to one raceway at a time and water from the raceway mixes with flow from other raceways and other areas of the facility prior to discharge.

Based on effluent monitoring data collected at all existing CAAP facilities, maximum effluent chloride concentrations ranged from 2.8 mg/L at the Trinity River Salmon and Steelhead Hatchery to 23 mg/L at the Warm Springs Fish Hatchery. Based on chloride monitoring results for the existing CAAP facilities, the current BMPs employed at CAAP facilities have been adequate to ensure effluent chloride concentrations do not exceed the Secondary MCL. Therefore, the discharge of chloride from CAAP facilities does not have reasonable potential to cause or contribute to an exceedance of water quality objectives for chloride, and effluent limitations for chloride have not been included in this General Order.

ii. **pH.** The Basin Plan includes water quality objectives for specific water bodies in Table 3-1. For waters not listed in Table 3-1 and where pH objectives are not prescribed, the Basin Plan specifies that the pH shall not be depressed below 6.5 nor raised above 8.5. The discharge of hatchery wastewater has a reasonable potential to cause or contribute to an exceedance of the water quality objectives for pH. Therefore, this General Order includes effluent limitations for pH based on the respective site-specific water quality objectives established in Chapter 3 of the Basin Plan.

As shown in the following table, based on influent data collected during the term of the existing permits, the influent pH is occasionally at or above the maximum pH objective of 8.5 and, consequently, the effluent pH may exceed the objective due to the flow-through nature of the facilities. The influent water to the facilities is from the same water body as the receiving water body[3] and the facilities do not alter the influent water chemically or physically with respect to pH. Therefore, in instances where the pH of the influent exceeds 8.5, this Order specifies that the effluent pH shall not exceed the pH of the influent, but in no case shall the effluent pH exceed 9.0.

Table F-5. Summary of Influent pH Data

Facility	Influent pH		
	Maximum (s.u.)	Number of Exceedances	Number of Samples
Coyote Valley Fishery Mitigation Facility	8.84	3	84
Mad River Fish Hatchery	Data Not Available		
Trinity River Salmon and Steelhead Hatchery	8.5	0[1]	41

[3] The Mad River Fish Hatchery draws intake water from a series of 18 wells at varying depths adjacent to the Mad River. Due to the proximity of the wells to the receiving water within the floodplain of the Mad River, there is a likely hydrologic connection between the intake water and the receiving water and the Regional Water Board considers the intake water to be from the same water body as the receiving water body.

Facility	Influent pH		
	Maximum (s.u.)	Number of Exceedances	Number of Samples
Warm Springs Fish Hatchery	12.28	8	238
Table Notes: 1. The influent pH was equivalent to the pH objective five times.			

iii. **TSS and Settleable Solids.** As described further in section IV.D of this Fact Sheet, the Mad River Fish Hatchery is subject to waste load allocations for TSS and settleable solids. The TMDL identifies the Mad River Fish Hatchery as a point source of sediment and suspended sediment. Section 3.2.2 of the TMDL specifies waste load allocations for TSS of 8 mg/L and for settleable solids of 0.1 mg/L. The waste load allocations for TSS and settleable solids were developed using limitations for these substances from the existing NPDES permit. This General Order includes effluent limitations for TSS and settleable solids consistent with the TMDL.

b. Priority Pollutants

The SIP establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP include methods to determine reasonable potential (for pollutants to cause or contribute to excursions above State water quality standards) and to establish numeric effluent limitations, if necessary, for those pollutants showing reasonable potential.

Section 1.3 of the SIP requires the Regional Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct an RPA. Effluent and receiving water monitoring data used to conduct the RPA for the CAAP facilities included the following:

i. **Coyote Valley Fishery Mitigation Facility:** Effluent data collected between December 2011 and January 2014; effluent chromium VI data from June 27, 2013, January, 6, 2014, and May 28, 2014; and an effluent priority pollutant data collected on January 6, 2014.

ii. **Mad River Fish Hatchery:** Effluent data collected between March 2005 and December 2013 and effluent priority pollutant data collected on November 19, 2012 and March 20, 2013.

iii. **Trinity River Salmon and Steelhead Hatchery:** Effluent and receiving water data collected between January 2005 and December 2013; effluent cyanide data from November 19-20, 2012, March 19, 2013, and April, 16, 2014; and effluent priority pollutant data collected on November 19-20, 2012, and March 19, 2013.

iv. **Warm Springs Fish Hatchery:** Effluent data collected between August 2011 and January 2014; effluent bis (2-ethylhexyl) phthalate data from June 27, 2013, January 7, 2014, and May 28, 2014; and effluent priority pollutant data collected on June 27, 2013, and January 7, 2014.

Hardness: The CTR and the NTR contain water quality criteria for seven metals that vary as a function of hardness; the lower the hardness, the lower the water quality criteria. The hardness-dependent metal criteria include cadmium, copper, chromium (III), lead, nickel, silver, and zinc.

Effluent limitations for the discharge must be set to protect the beneficial uses of the receiving water for all discharge conditions. Effluent limitations must be set using a reasonable worst-case condition in order to protect beneficial uses for all discharge

conditions. The SIP does not address how to determine hardness for application to the equations for the protection of aquatic life when using hardness dependent metals criteria. It simply states, in Section 1.2, that the criteria shall be properly adjusted for hardness using the hardness of the receiving water. The CTR requires that, for waters with a hardness of 400 mg/L (as $CaCO_3$), or less, the actual ambient hardness of the surface water must be used. It further requires that the hardness values used must be consistent with the design discharge conditions for design flows and mixing zones (See 40 C.F.R. section 131.38(c)(4)(i)). The CTR does not define whether the term "ambient", as applied in the regulations, necessarily requires the consideration of the upstream as opposed to downstream hardness conditions.

State Water Board Order No. WQ-2008-0008 (City of Davis) further interpreted the SIP by stating "*…the regional water boards have considerable discretion in the selection of hardness. Regardless of which method is used for determining hardness, the selection must be protective of water quality criteria, given the flow conditions under which a particular hardness exists….Regardless of the hardness used, the resulting limits must always be protective of water quality under all flow conditions*."

Effluent and receiving water data for hardness was not available for the existing facilities covered by this General Order, but was available for the Iron Gate Hatchery, which had a minimum effluent hardness of 51 mg/L and a minimum upstream receiving water hardness of 48 mg/L. Nevertheless, these hardness values are expected to be representative of effluent and receiving water conditions for the effluent from the CAAP facilities and receiving waters in the North Coast Region. Therefore, water quality criteria for hardness-dependent metals were calculated for this General Order using a reported minimum receiving water hardness of 48 mg/L as $CaCO_3$.

c. Reasonable Potential Determination

Reasonable potential could not be determined for all pollutants, as there are not applicable water quality criteria for all pollutants. The RPA determined that there is either no reasonable potential or there was insufficient information to conclude affirmative reasonable potential for the 126 priority pollutants.

Section 1.2 of the SIP states "*The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy. Instances where such consideration is warranted include, but are not limited to the following…questionable quality control/quality assurance practices.*" As described below, the Regional Water Board has determined that effluent monitoring data for bis (2-ethylhexyl) phthalate at the Warm Springs Fish Hatchery, chromium VI at the Coyote Valley Fishery Mitigation Facility, and cyanide at the Trinity River Salmon and Steelhead Hatchery is inappropriate or insufficient for use in determining reasonable potential to cause or contribute to exceedances of applicable water quality criteria. Section 1.3, Step 8 of the SIP states "*If data are unavailable or insufficient, as described in section 1.2, to conduct the above analysis for the pollutant…the Regional Water Board shall require additional monitoring for the pollutant in place of a water quality-based effluent limitation.*" Consistent with the SIP, this General Order requires annual effluent monitoring for these constituents at the respective CAAP facilities.

i. **Bis (2-ethylhexyl) Phthalate.** Bis (2-ethylhexyl) phthalate was detected but not quantified (DNQ) in an effluent sample collected from the Warm Springs Fish Hatchery on January 7, 2014 at an estimated concentration of 2.9 µg/L, which exceeds the CTR criterion for protection of human health for consumption of water and organisms of 1.8 µg/L. The quality assurance/quality control data submitted in the laboratory report for the January 7, 2014 sample indicates that bis (2-ethylhexyl) phthalate was also detected in the method blank, which may be

an indication of sample contamination in the analytical process. Bis (2-ethyl-hexyl) phthalate is used primarily as one of several plasticizers in polyvinyl chloride (PVC) resins for fabricating flexible vinyl products. In comments provided to the Regional Water Board on July 17, 2015, DFW indicated that the January 7, 2014 detection potentially resulted from flushing of new infrastructure constructed in the round tanks, which primarily has PVC plumbing, at the time of sampling. Bis (2-ethylhexyl) phthalate was not detected in the effluent from the Warm Springs Fish Hatchery in a sample on June 27, 2013 or May 28, 2014. Due to the concerns with the January 7, 2014 sample, potential source (PVC pipes), and the limited dataset, this Order requires additional effluent monitoring for bis (2-ethylhexyl) phthalate at the Warm Springs Fish Hatchery to ensure sufficient data is available to perform an RPA during the next permit renewal per section 1.3, step 8 of the SIP. Bis (2-ethylhexyl) phthalate was not detected in the effluent samples from any of the other CAAP facilities.

ii. **Chromium VI.** Chromium VI was detected but not quantified (DNQ) in an effluent sample collected from the Coyote Valley Fishery Mitigation Facility on January 6, 2014 at an estimated concentration of 21 µg/L, which exceeds the CTR chronic criterion for protection of aquatic life of 11 µg/L. The case narrative in the laboratory report for the January 6, 2014 sample indicates that the sample was received with insufficient hold time remaining to run the analysis. The analysis was performed as soon as possible after receipt by the laboratory, but was 22 minutes past hold time. Furthermore, total chromium was analyzed in the same effluent sample and had a resulting concentration of 1.10 µg/L. Since chromium VI is a component of total chromium, the concentration of chromium VI should not be greater than the concentration for total chromium. Chromium VI was not detected in the effluent from the Coyote Valley Fishery Mitigation Facility in samples collected on June 27, 2013 or May 28, 2014. Due to the concerns with the January 6, 2014 sample and the limited dataset, this Order requires additional effluent monitoring for chromium VI at the Coyote Valley Fishery Mitigation Facility to ensure sufficient data is available to perform an RPA during the next permit renewal per section 1.3, step 8 of the SIP. Chromium VI was not detected above the CTR criterion in the effluent samples from any of the other CAAP facilities.

iii. **Cyanide.** Cyanide was detected in an effluent sample collected from the Trinity River Salmon and Steelhead Hatchery on November 19-20, 2012 at a concentration of 52 µg/L, which exceeds the CTR chronic criterion for protection of aquatic life of 5.2 µg/L. The quality assurance/quality control data submitted in the laboratory report for the November 19-20, 2012 sample included a qualifier of "MS-01" for the matrix spike and two matrix spike duplicates, which is defined as "*The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.*" Cyanide was not detected in the effluent from the Trinity River Salmon and Steelhead Hatchery in samples collected on March 19, 2013 or April 16, 2014. Due to the concerns with the November 19-20, 2012 sample and the limited dataset, this Order requires additional effluent monitoring for cyanide at the Trinity River Salmon and Steelhead Hatchery to ensure sufficient data is available to perform an RPA during the next permit renewal per section 1.3, step 8 of the SIP. Cyanide was not detected in effluent samples from any of the other CAAP facilities.

The following table summarizes the RPA for each pollutant that was reported in detectable concentrations in the effluent or the receiving water from the existing CAAP facilities. The MECs, most stringent water quality objectives/water quality criteria

(WQO/WQCs), and background concentrations (B) used in the RPA are presented, along with the RPA results (Yes or No and which trigger) for each toxic pollutant analyzed. No other pollutants with applicable, numeric water quality criteria from the NTR, CTR, and the Basin Plan were measured above detectable concentrations during the monitoring events conducted by the existing CAAP facilities.

Table F-6. Summary of Reasonable Potential Analysis Results

CTR #	Pollutants	C or Most Stringent WQO/WQC (µg/L)	MEC or Minimum DL (µg/L)[1]	B or Minimum DL (µg/L)	RPA Results[2]
1	Antimony	6	0.324	NA[3]	No
2	Arsenic	10	1	NA	No
3	Beryllium	4	0.058	NA	No
4	Cadmium	1.4	0.006	NA	No
5b	Chromium (VI)	11	21	NA	Ud[4]
6	Copper	5.0	1.82	NA	No
7	Lead	1.2	0.168	NA	No
8	Mercury	0.050	0.0014	NA	No
9	Nickel	28	5.5	NA	No
11	Silver	1.1	0.015	NA	No
12	Thallium	1.7	0.0135	NA	No
13	Zinc	64	7.3	NA	No
14	Cyanide	5.2	52	NA	Ud[5]
35	Methyl Chloride	No Criteria	0.09	NA	Ud
39	Toluene	150	0.26	NA	No
68	Bis (2-Ethylhexyl) Phthalate	1.8	2.9	NA	Ud[6]
103	alpha-BHC	0.0039	0.00025	NA	No
	Aluminum	1,000	253	NA	No
	Barium	1,000	91	NA	No
	Chloride	250,000[7]	23,000	NA	No
	Nitrate Plus Nitrite (as N)	10,000	1,300	NA	No

Table Notes:

1. The Maximum Effluent Concentration (MEC) or maximum background concentration (B) is the actual detected concentration unless it is preceded by "<", in which case the value shown is the minimum detection level as the analytical result was reported as not detected (ND).
2. RPA Results:
   = Yes, if MEC > WQO/WQC, or B > WQO/WQC and MEC is detected;
   = No, if MEC and B are < WQO/WQC or all effluent data are undetected;
   = Undetermined (Ud).
3. NA = Not available.
4. As described further in section V.C.3.c of this Fact Sheet, effluent data for the Coyote Valley Fishery Mitigation Facility is inappropriate or insufficient. Effluent concentrations for the remaining CAAP facilities were below the applicable water quality criteria.
5. As described further in section V.C.3.c of this Fact Sheet, effluent data for the Trinity River Salmon and Steelhead Hatchery is inappropriate or insufficient. Effluent concentrations for the remaining CAAP facilities were below the applicable water quality criteria.
6. As described further in section V.C.3.c of this Fact Sheet, effluent data for the Warm Springs Fish Hatchery is inappropriate or insufficient. Effluent concentrations for the remaining CAAP facilities were below the applicable water quality criteria.
7. Represents the Secondary MCL for chloride, which was the basis for effluent limitations in the NPDES permits for the Coyote Valley Fishery Mitigation Facility and the Warm Springs Fish Hatchery. The Secondary MCL for chloride is not included in the Basin Plan.

4. WQBEL Calculations

Final WQBELs for pH have been established based on the site-specific Basin Plan objectives and final WQBELs for TSS and settleable solids for the Mad River Fish Hatchery have been established based on the WLAs in the applicable TMDL.

5. Whole Effluent Toxicity (WET)

Effluent limitations for whole effluent, acute and chronic toxicity, protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in effluent. There are two types of WET tests – acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

WET requirements are derived from the CWA and the Basin Plan. The Basin Plan establishes a narrative water quality objective for toxicity that states "*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, or aquatic life*." Detrimental responses may include, but are not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

Due to the nature of CAAP facility operations, the effluent quality is very consistent and additions consist of feed and occasionally drugs and chemicals under controlled use. This General Order prohibits detectable amounts of aquaculture drugs and chemicals used for the treatment or control of disease and includes reporting requirements for the Permittees to demonstrate compliance with this prohibition during use. Therefore, the Regional Water Board finds that discharges from CAAP facilities do not have reasonable potential to cause or contribute to an exceedance of the narrative toxicity objective, and this General Order does not include effluent limitations or monitoring requirements for acute or chronic toxicity.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. With the exception of mass-based effluent limitations for TSS for each of the existing CAAP facilities; effluent limitations for TSS, settleable solids, and chronic toxicity for the Mad River Fish Hatchery; and chloride at the Coyote Valley Fishery Mitigation Facility and Warm Springs Fish Hatchery, all effluent limitations in this General Order are at least as stringent as the effluent limitations in the previous Order.

The individual permits for the existing CAAP facilities included mass-based effluent limitations for TSS. CWA section 402(o)(2)(B)(ii) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if technical mistakes or mistaken interpretations of law were made in issuing the permit. 40 C.F.R. section 122.45(f)(1)(iii) states that mass limitations are not required for effluent limitations established under 40 C.F.R. section 125.3 (i.e., based on BPJ) if the mass of the pollutant discharged cannot be related to a measure of operation and permit conditions ensure that dilution will not be used as a substitute for treatment. There are no standards that specifically require a mass-based effluent limitation, and mass of the pollutant discharged is not specifically related to a measure of operation. In addition, mass-based effluent limitations for TSS are not necessary because this General Order includes a concentration-

based limitation and a maximum daily flow limitation will be specified in the NOA for each facility seeking coverage. Therefore, the mass-based effluent limitations for TSS have not been retained in this Order.

Existing Order R1-2005-0036 for the Mad River Fish Hatchery included a final effluent limitation specifying that "*Not more than ten percent of critical life stage chronic toxicity bioassay determinations in any calendar year shall produce statistically significant deleterious effects to any test organism from exposure to undiluted effluent*." The Mad River Fish Hatchery conducted chronic toxicity bioassays in June 2008 (associated with treatment using potassium permanganate) and June 2012 (associated with treatment using florfenicol and potassium permanganate), which did not demonstrate toxicity to *Ceriodaphnia dubia* survival or reproduction or *Selenastrum capricornutum* growth. Furthermore, as described in section V.C.5 of this Fact Sheet, the Regional Water Board finds that discharges from CAAP facilities do not have reasonable potential to cause or contribute to an exceedance of the narrative toxicity objective due to the nature of CAAP facility operations, and this General Order's prohibition of detectable amounts of aquaculture drugs and chemicals used for the treatment or control of disease. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Therefore, consistent with CWA section 402(o)(2)(B)(i), this General Order does not include a narrative chronic toxicity effluent limitation based on updated information which indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the Basin Plan objective.

Existing Orders 97-60 and 97-61 for the Coyote Valley Fishery Mitigation Facility and the Warm Springs Fish Hatchery, respectively, included a final effluent MDEL for chloride of 250 mg/L based on the Secondary MCL. Based on chloride monitoring results for the existing CAAP facilities, the current BMPs employed at CAAP facilities have been adequate to ensure effluent chloride concentrations do not exceed the Secondary MCL. Therefore, the discharge of chloride from CAAP facilities does not have reasonable potential to cause or contribute to an exceedance of water quality objectives for chloride. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Therefore, consistent with CWA section 402(o)(2)(B)(i), this General Order does not include effluent limitations for chloride based on updated information which indicates that the discharges do not exhibit reasonable potential to cause or contribute to an exceedance of the Secondary MCL.

Existing Order R1-2005-0036 for the Mad River Fish Hatchery and existing Order R1-2000-18 for the Trinity River Salmon and Steelhead Hatchery included a final effluent limitation for pH specifying that the pH shall not be less than 6.5 nor greater than 8.5. Based on influent pH monitoring results for the existing CAAP facilities, the influent pH is occasionally at or above the maximum pH objective of 8.5 and, consequently, the effluent pH may exceed the objective due to the flow-through nature of the facilities. The influent water to the facilities is from the same water body as the receiving water body and the facilities do not alter the influent water chemically or physically with respect to pH. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time

of permit issuance. Therefore, consistent with CWA section 402(o)(2)(B)(i), this General Order includes less stringent effluent limitations for pH in instances when the influent pH exceeds the Basin Plan objective based on updated information which indicates that the influent pH is occasionally at or above the maximum pH objective of 8.5.

2. Antidegradation Policies

Provisions of this General Order are consistent with applicable anti-degradation policy expressed by NPDES regulations at 40 C.F.R. section 131.12 and by State Water Board Resolution No. 68-16. This General Order requires compliance with applicable federal technology-based standards, including implementation of a BMP plan to minimize the discharge of pollutants to the receiving waters, and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. Discharges from the CAAP facilities covered by this General Order will be required to maintain protection of the beneficial uses of the receiving water and comply with applicable provisions of the Basin Plan. Limitations and conditions of this General Order assure protection and maintenance of the existing quality of receiving waters. However, if the Regional Water Board, subsequent to review of any application, finds that the impact of a discharge will not be insignificant, then authorization for coverage under this General Order will be denied and coverage under an individual permit will be required (including preparation of an anti-degradation analysis).

This General Order does not retain the mass-based effluent limitations for TSS from the individual NPDES permits for the five existing CAAP facilities; however, this General Order retains the concentration-based effluent limitations for TSS and the NOAs will specify applicable maximum daily flow limitations. Compliance with the concentration-based effluent limitations for TSS and the flow limitations specified in the NOA will ensure that additional mass of TSS will not be discharged to the receiving water. Thus, the Regional Water Board finds that the removal of the mass-based effluent limitations for TSS will not result in an allowed increase in pollutants or any additional degradation of the receiving water. Thus, the removal of effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

3. Stringency of Requirements for Individual Pollutants

This General Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on TSS and settleable solids. Restrictions on these pollutants are discussed in sections V.B.2 and V.D of the Fact Sheet. This General Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this General Order contains effluent limitations for pH for all CAAP facilities and TSS and settleable solids for the Mad River Fish Hatchery that are more stringent than the minimum, federal technology-based requirements but are necessary to meet water quality standards. These requirements are discussed in section V.C.3 of the Fact Sheet.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR-SIP, which was approved by U.S. EPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The

remaining water quality objectives and beneficial uses implemented by this General Order (specifically the addition of the beneficial use of Native American Culture (CUL) and the General Objective regarding antidegradation) were approved by U.S. EPA on March 4, 2005, and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this General Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Interim Effluent Limitations – Not Applicable

This Order does not establish interim effluent limitations or schedules for compliance with final limitations.

F. Recycling Specifications – Not Applicable

This General Order does not establish recycling specifications.

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Regional Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that "[t]*he numerical and narrative water quality objectives define the least stringent standards that the Regional [Water] Board will apply to regional waters in order to protect the beneficial uses.*" The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This General Order contains Receiving Surface Water Limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, bacteria, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity.

Water body-specific objectives have been published in Table 3-1 of the Basin Plan for specific conductivity, total dissolved solids, dissolved oxygen, pH, hardness, and boron. The NOI of this General Order requires applicants to identify water quality objectives from Table 3-1 applicable to the receiving water to which their facility discharges. If water quality objectives from Table 3-1 of the Basin Plan are applicable, the NOA shall specify additional receiving water limitations for the applicable constituents based on the water quality objectives.

B. Groundwater – Not Applicable

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D. The Permittee must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42. The Regional Water Board has also included in this General Order special provisions applicable to the Permittee. The rationale for the special provisions contained in the General Order is provided in section VII.B, below.

40 C.F.R. section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 C.F.R. section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R.

section 123.25, this General Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this General Order incorporates by reference Water Code section 13387(e).

2. Regional Water Board Standard Provisions

In addition to the Federal Standard Provisions (Attachment D), the Permittee shall comply with the Regional Water Board Standard Provisions provided in Standard Provisions X.A.2.

a. Order Provision X.A.2.a identifies the State's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations (e.g., 40 C.F.R. sections 122.41(j)(5) and (k)(2)).

b. Order Provision X.A.2.b requires the Permittee to notify Regional Water Board staff, orally and in writing, in the event that the Permittee does not comply or will be unable to comply with any Order requirement. This provision requires the Permittee to make direct contact with a Regional Water Board staff person. This Provision implements federal requirements at 40 C.F.R. section 122.41(I)(6) and (7) for notification of noncompliance and spill reporting.

B. Special Provisions

1. Reopener Provisions

a. Standard Revisions (Special Provision X.C.1.a). Conditions that necessitate a major modification of a permit are described in 40 C.F.R. section 122.62, which include the following:

i. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this General Order in accordance with such revised standards.

ii. When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.

b. Reasonable Potential (Special Provision X.C.1.b). This provision allows the Regional Water Board to modify, or revoke and reissue, this General Order if present or future investigations demonstrate that a Permittee governed by this Permit is causing or contributing to excursions above any applicable priority pollutant criterion or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

c. 303(d)-Listed Pollutants (Special Provision X.C.1.c). This provision allows the Regional Water Board to reopen this General Order to modify existing effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

d. Water Effects Ratios (WERs) and Metal Translators (Special Provision X.C.1.d). This provision allows the Regional Water Board to reopen this General Order if future studies undertaken by a Permittee provide new information and justification for applying a water effects ratio or metal translator to a water quality objective for one or more priority pollutants.

2. **Special Studies and Additional Monitoring Requirements**

   a. **New Chemical and Aquaculture Drug Use Reporting (Special Provision X.C.2.a).** The Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category at 40 C.F.R. part 451 include the following reporting and narrative requirements for CAAP facilities:

      i. Each facility must notify the permitting authority of any INAD or extra-label drug use where the use may lead to a discharge to waters of the United States.

      ii. Each facility must report for failure in or damage to the structure of an aquatic animal containment system, resulting in an unanticipated material discharge of pollutant to waters of the United States.

      iii. Each facility must develop and maintain a BMP Plan for solids control, material storage, structural maintenance, record keeping, and training.

      Prior to using any new chemical or aquaculture drug at a CAAP facility, a Permittee is required to notify the Regional Water Board of the proposed use. The notification must contain the toxicity testing results of the new chemical or aquaculture drug as specified in Section X.C.2.a of this General Order. These reporting and toxicity testing requirements are needed for the Regional Water Board to determine if the discharge of a new drug or chemical by the Facility has reasonable potential to cause, or contribute to an in-stream excursion above any chemical-specific water quality criteria, narrative water quality objective for chemical constituents from the Basin Plan, or narrative water quality objective for toxicity from the Basin Plan.

3. **Best Management Practices and Pollution Prevention**

   a. **Pollutant Minimization Plan (Special Provision X.C.3.a)**. Provision X.C.3.a is included in this General Order as required by section 2.4.5 of the SIP. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a Pollutant Minimization Program when there is evidence that a toxic pollutant is present in the effluent at a concentration greater than an applicable effluent limitation.

   b. **Best Management Practices (BMP) Plan (Special Provision X.C.3.b).** Provision X.C.3.b is established based on requirements in Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category at 40 C.F.R. part 451. CAAP facilities are required to develop and maintain a BMP Plan that addresses the following requirements: solids control, material storage, structural maintenance, record-keeping, and training. Each Permittee must make the BMP Plan available to the Regional Water Board upon request, and submit certification that the BMP Plan has been developed.

   c. **Chemical Controls Verification Monitoring and Reporting Plan (Special Provision X.C.3.b).** Provision X.C.3.c is necessary to determine the effectiveness of the BMP Plan required in accordance with Special Provision X.C.3.b above as well as prohibitions established by this General Order. Monitoring is necessary to demonstrate the absence of whole effluent toxicity and verify chemical concentrations in the effluent associated with periodic disease control activities. Because the antibiotics and other disease control chemical may vary in application at each CAAP and analytical methods for detecting these chemicals may be unique, the requirement for a plan to monitor these constituents is required as a special provision of the General Order.

4. **Construction, Operation, and Maintenance Specifications**

   a. 40 C.F.R. section 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit

conditions. An up-to-date operation and maintenance manual, as required by Provision X.C.4.b of this General Order, is an integral part of a well-operated and maintained facility.

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

6. Other Special Provisions

a. Solids Disposal (Special Provision X.C.6.a). Provision X.C.6.a is based on the requirements of title 27 of the California Code of Regulations and prevention of unauthorized discharges of solid wastes into waters of the United States or waters of the State. Other waste disposal specifications for drugs and chemicals are to prevent other unauthorized discharges to waters of the United States or waters of the State.

7. Compliance Schedules – Not Applicable

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

VIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E, establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for CAAP facilities.

A. Influent Monitoring

Influent monitoring is required for all CAAP facilities, except the Mad River Fish Hatchery, for TSS and settleable solids when discharges from a CAAP facility are occurring. Influent TSS and settleable solids concentrations will be subtracted from the effluent concentrations to calculate the net increase of these pollutants in the effluent for comparison with the applicable effluent limitations. This Order does not allow net effluent limitations for TSS and settleable solids for the Mad River Fish Hatchery; therefore, influent monitoring for TSS and settleable solids is unnecessary and is not required by this General Order.

B. Effluent Monitoring

Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations.

Effluent monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established by this General Order. Effluent monitoring is necessary to demonstrate compliance with technology-based effluent limitations and WQBELs, and demonstrate whether or not the discharge poses reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives.

Effluent monitoring is required for flow (daily), TSS (quarterly), settleable solids (quarterly), and pH (quarterly) to characterize the effluent and determine compliance with the applicable effluent limitations for these constituents.

Effluent monitoring for turbidity is required to assess the effectiveness of solids removal and the impact of discharges on the receiving water.

U.S. EPA published updated National Ambient Water Quality Criteria for protection of aquatic life for ammonia, which are based on pH and temperature. Effluent monitoring data for ammonia at the existing CAAP facilities is not available. Therefore, this General Order requires quarterly monitoring for ammonia in order to evaluate if discharges from CAAP facilities have reasonable

potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective. In order to properly adjust the criteria for ammonia, this General Order requires quarterly monitoring for pH and temperature concurrent with ammonia sampling.

This General Order establishes annual effluent monitoring for hardness to ensure that adequate data is available to properly adjust water quality criteria for hardness-based metals.

In accordance with Section 1.3 of the SIP, periodic monitoring is required for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This General Order requires effluent monitoring for priority pollutants one time at least 180 days but no more than 365 days prior to expiration of this General Order.

As described further in section V.C.3.c of this Fact Sheet, the Regional Water Board has determined that effluent monitoring data for bis (2-ethylhexyl) phthalate at the Warm Springs Fish Hatchery, chromium VI at the Coyote Valley Fishery Mitigation Facility, and cyanide at the Trinity River Salmon and Steelhead Hatchery is inappropriate or insufficient for use in determine reasonable potential to cause or contribute to exceedances of applicable water quality criteria. Section 1.3, Step 8 of the SIP states "*If data are unavailable or insufficient, as described in section 1.2, to conduct the above analysis for the pollutant…the Regional Water Board shall require additional monitoring for the pollutant in place of a water quality-based effluent limitation*." Therefore, this General Order requires annual effluent monitoring for these constituents at the respective CAAP facilities.

C. Whole Effluent Toxicity Testing Requirements

As discussed in section V.C.5 of this Fact Sheet, discharges from CAAP facilities do not have reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective. Therefore, this General Order does not require routine acute or chronic toxicity monitoring.

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to demonstrate compliance with the receiving water limitations. This General Order requires quarterly monitoring in the upstream and downstream receiving water for dissolved oxygen, pH, temperature, and turbidity.

This General Order establishes annual upstream receiving water monitoring for hardness to ensure that adequate data is available to properly adjust water quality criteria for hardness-based metals.

In accordance with Section 1.3 of the SIP, periodic monitoring is required for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This General Order requires upstream receiving water monitoring for priority pollutants one time at least 180 days but no more than 365 days prior to expiration of this General Order.

The Regional Water Board staff is exploring the possibility of regional coordinated monitoring programs in various watersheds within the North Coast Region. Should a regional monitoring program (RMP) be developed for a watershed applicable to an enrollee authorized to discharge under this General Order, participation in the RMP will be required and receiving water monitoring requirements for that enrollee revised accordingly.

2. Groundwater

This General Order does not authorize discharges to groundwater. Therefore no groundwater monitoring is required.

E. Other Monitoring Requirements

1. **Quarterly Drug and Chemical Use Report.** The ELGs for CAAP facilities require reporting on the use of drugs, disinfectants, and other chemicals in discharges authorized by NPDES permits. Consistent with the ELGs, this General Order requires quarterly reporting of drug and chemical use using the Chemical Use Report in Attachment C.

IX. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for CAAP facilities. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board notified the potential Permittees and other interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting on the Regional Water Board's Internet site at: http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs.shtml

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this General Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on **June 26, 2015**. In response to written request from California Department of Fish and Wildlife, the public comment period was extended to July 17, 2015.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **November 19, 2015**
Time: 8:30 a.m. or as announced in the Regional Water Board's agenda
Location: Regional Water Board Hearing Room, 5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/northcoast where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and Cal. Code Regs., tit. 23, § 2050. The petition must be received by the State Water Board within 30 days of the date of this General Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this General Order may request the Regional Water Board to reconsider this General Order. To be timely, such request must be made within 30 days of the date of this General Order. Note that even if reconsideration by the Regional water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If the Permittee chooses to request reconsideration of this General Order or file a petition with the State Water Board, the Permittee must comply with the General Order while the request for reconsideration and/or petition is being considered. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this Facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this General Order should be directed to Lisa Bernard at lisa.bernard@waterboards.ca.gov or (707) 576-2677.

ATTACHMENT G –SPECIFIC WATER QUALITY OBJECTIVES FROM BASIN PLAN TABLE 3-1

TABLE 3-1

SPECIFIC WATER QUALITY OBJECTIVES FOR NORTH COAST REGION

	Specific Conductance (micromhos) @ 77°F		Total Dissolved Solids (mg/L)		Dissolved Oxygen (mg/L)			Hydrogen Ion (pH)		Hardness (mg/L)	Boron (mg/L)	
Waterbody[1]	90% Upper Limit[3]	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]	Min	90% Lower Limit[3]	50% Lower Limit[2]	Max	Min	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]
Lost River HA												
Clear Lake Reservoir & Upper Lost River	300	200			5.0		8.0	9.0	7.0	60	0.5	0.1
Lower Lost River	1000	700			5.0		-	9.0	7.0	-	0.5	0.1
Other Streams	250	150			7.0		8.0	8.4	7.0	50	0.2	0.1
Tule Lake	1300	900			5.0		-	9.0	7.0	400	-	-
Lower Klamath Lake	1150	850			5.0		-	9.0	7.0	400	-	-
Groundwaters [4]	1100	500			-		-	8.5	7.0	250	0.3	0.2
Butte Valley HA												
Streams	150	100			7.0		9.0	8.5	7.0	30	0.1	0.0
Meiss Lake	2000	1300			7.0		8.0	9.0	7.5	100	0.3	0.1
Groundwaters [4]	800	400			-		-	8.5	6.5	120	0.2	0.1
Shasta Valley HA												
Shasta River	800	600			7.0		9.0	8.5	7.0	220	1.0	0.5
Other Streams	700	400			7.0		9.0	8.5	7.0	200	0.5	0.1
Lake Shastina	300	250			6.0		9.0	8.5	7.0	120	0.4	0.2
Groundwaters [4]	800	500			-		-	8.5	7.0	180	1.0	0.3
Scott River HA												
Scott River	350	250			7.0		9.0	8.5	7.0	100	0.4	0.1
Other Streams	400	275			7.0		9.0	8.5	7.0	120	0.2	0.1
Groundwaters [4]	500	250			-		-	8.0	7.0	120	0.1	0.1
Salmon River HA												
All Streams	150	125			9.0		10.0	8.5	7.0	60	0.1	0.0
Middle Klamath River HA												
Klamath River above Iron Gate Dam including Iron Gate & Copco Reservoirs	425	275			[13]		[13]	8.5	7.0	60	0.3	0.2
Klamath River below Iron Gate Dam	350	275			[13]		[13]	8.5	7.0	80	0.5	0.2
Other Streams	300	150			7.0		9.0	8.5	7.0	60	0.1	0.0
Groundwaters [4]	750	600			-		-	8.5	7.5	200	0.3	0.1
Applegate River HA												
All Streams	250	175			7.0		9.0	8.5	7.0	60	-	-
Upper Trinity River HA												
Trinity River [5]	200	175			7.0		10.0	8.5	7.0	80	0.1	0.0
Other Streams	200	150			7.0		10.0	8.5	7.0	60	0.0	0.0
Clair Engle Lake and Lewiston Reservoir	200	150			7.0		10.0	8.5	7.0	60	0.0	0.0

TABLE 3-1 (CONTINUED)

SPECIFIC WATER QUALITY OBJECTIVES FOR NORTH COAST REGION

Waterbody[1]	Specific Conductance (micromhos) @ 77°F		Total Dissolved Solids (mg/L)		Dissolved Oxygen (mg/L)			Hydrogen Ion (pH)		Hardness (mg/L)	Boron (mg/L)	
	90% Upper Limit[3]	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]	Min	90% Lower Limit[3]	50% Lower Limit[2]	Max	Min	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]
Hayfork Creek												
Hayfork Creek	400	275			7.0		9.0	8.5	7.0	150	0.2	0.1
Other Streams	300	250			7.0		9.0	8.5	7.0	125	0.0	0.0
Ewing Reservoir	250	200			7.0		9.0	8.0	6.5	150	0.1	0.0
Groundwaters [4]	350	225			-		-	8.5	7.0	100	0.2	0.1
S.F. Trinity River HA												
S.F. Trinity River	275	200			7.0		10.0	8.5	7.0	100	0.2	0.0
Other Streams	250	175			7.0		9.0	8.5	7.0	100	0.0	0.0
Lower Trinity River HA												
Trinity River	275	200			8.0		10.0	8.5	7.0	100	0.2	0.0
Other Streams	250	200			9.0		10.0	8.5	7.0	100	0.1	0.0
Groundwaters [4]	200	150			-		-	8.5	7.0	75	0.1	0.1
Lower Klamath River HA												
Klamath River	300[6]	200[6]			[13]		[13]	8.5	7.0	75[6]	0.5[6]	0.2[6]
Other Streams	200[6]	125[6]			8.0		10.0	8.5	6.5	25[6]	0.1[6]	0.0[6]
Groundwaters [4]	300	225			-		-	8.5	6.5	100	0.1	0.0
Illinois River HA												
All Streams	200	125			8.0		10.0	8.5	7.0	75	0.1	0.0
Winchuck River HU												
All Streams	200[6]	125[6]			8.0		10.0	8.5	7.0	50[6]	0.0[6]	0.0[6]
Smith River HU												
Smith River-Main Forks	200	125			8.0		11.0	8.5	7.0	60	0.1	0.1
Other Streams	150[6]	125[6]			7.0		10.0	8.5	7.0	60[6]	0.1[6]	0.0[6]
Smith River Plain HSA												
Smith River	200[6]	150[6]			8.0		11.0	8.5	7.0	60[6]	0.1[6]	0.0[6]
Other Streams	150[6]	125[6]			7.0		10.0	8.5	6.5	60[6]	0.1[6]	0.0[6]
Lakes Earl & Talawa	-	-			7.0		9.0	8.5	6.5	-	-	-
Groundwaters [4]	350	100			-		-	8.5	6.5	75	1.0	0.0
Crescent City Harbor	-	-										
Redwood Creek HU												
Redwood Creek	220[6]	125[6]	115[6]	75[6]	7.0	7.5	10.0	8.5	6.5			
Mad River HU												
Mad River	300[6]	150[6]	160[6]	90[6]	7.0	7.5	10.0	8.5	6.5			
Eureka Plain HU												
Humboldt Bay	-	-	-	-	6.0	6.2	7.0	8.5	[7]			
Eel River HU												
Eel River	375[6]	225[6]	275[6]	140[6]	7.0	7.5	10.0	8.5	6.5			
Van Duzen River	375	175	200	100	7.0	7.5	10.0	8.5	6.5			

TABLE 3-1 (CONTINUED)

SPECIFIC WATER QUALITY OBJECTIVES FOR NORTH COAST REGION

Waterbody[1]	Specific Conductance (micromhos) @ 77°F		Total Dissolved Solids (mg/L)		Dissolved Oxygen (mg/L)			Hydrogen Ion (pH)		Hardness (mg/L)	Boron (mg/L)	
	90% Upper Limit[3]	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]	Min	90% Lower Limit[3]	50% Lower Limit[2]	Max	Min	50% Upper Limit[2]	90% Upper Limit[3]	50% Upper Limit[2]
South Fork Eel River	350	200	200	120	7.0	7.5	0.0	8.5	6.5			
Middle Fork Eel River	450	200	230	130	7.0	7.5	10.0	8.5	6.5			
Outlet Creek	400	200	230	125	7.0	7.5	10.0	8.5	6.5			
Cape Mendocino HU												
Bear River	390[6]	255[6]	240[6]	150[6]	7.0	7.5	10.0	8.5	6.5			
Mattole River	300[6]	170[6]	170[6]	105[6]	7.0	7.5	10.0	8.5	6.5			
Mendocino Coast HU												
Ten Mile River	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Noyo River	185[6]	150[6]	120[6]	105[6]	7.0	7.5	10.0	8.5	6.5			
Jug Handle Creek	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Big River	300[6]	195[6]	190[6]	130[6]	7.0	7.5	10.0	8.5	6.5			
Albion River	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Navarro River	285[6]	250[6]	170[6]	150[6]	7.0	7.5	10.0	8.5	6.5			
Garcia River	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Gualala River	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Russian River HU												
(upstream) [8]	320	250	170	150	7.0	7.5	10.0	8.5	6.5			
(downstream) [9]	375[6]	285[6]	200[6]	170[6]	7.0	7.5	10.0	8.5	6.5			
Laguna de Santa Rosa	-	-	-	-	7.0	7.5	10.0	8.5	6.5			
Bodega Bay	-	-	-	-	6.0	6.2	7.0	8.5	[7]			
Coastal Waters [10]	-	-	-	-	[11]	[11]	[11]	[12]	[12]			

1 Water bodies are grouped by hydrologic unit (HU), hydrologic area (HA), or hydrologic subarea (HSA).
2 50% upper and lower limits represent the 50 percentile values of the monthly means for a calendar year. 50% or more of the monthly means must be less than or equal to an upper limit and greater than or equal to a lower limit.
3 90% upper and lower limits represent the 90 percentile values for a calendar year. 90% or more of the values must be less than or equal to an upper limit and greater than or equal to a lower limit.
4 Value may vary depending on the aquifer being sampled. This value is the result of sampling over time, and as pumped, from more than one aquifer.
5

Daily Average Not to Exceed	Period	River Reach
60°F	July 1 - Sept. 14	Lewiston Dam to Douglas City Bridge
56°F	Sept. 15 - Oct. 1	Lewiston Dam to Douglas City Bridge
56°F	Oct. 1 - Dec. 31	Lewiston Dam to confluence of North Fork Trinity River

6 Does not apply to estuarine areas.
7 pH shall not be depressed below natural background levels.
8 Russian River (upstream) refers to the mainstem river upstream of its confluence with Laguna de Santa Rosa.
9 Russian River (downstream) refers to the mainstem river downstream of its confluence with Laguna de Santa Rosa.
10 The State's Ocean Plan applies to all North Coast Region coastal waters.
11 Dissolved oxygen concentrations shall not at any time be depressed more than 10 percent from that which occurs naturally.
12 pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
13 The Site Specific Objectives (SSOs) for dissolved oxygen (DO) have been recalculated for the mainstem Klamath River and are presented separately in Table 3-1a.
- no water body specific objective available

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TABLE 3-1a[1]

Location[2]	Percent DO Saturation Based On Natural Receiving Water Temperatures[3]	Time Period
Stateline to the Scott River	90%	October 1 through March 31
	85%	April 1 through September 30
Scott River to Hoopa	90%	Year round
Downstream of Hoopa-California boundary to Turwar	85%	June 1 through August 31
	90%	September 1 through May 31
Upper and Middle Estuary	80%	August 1 through August 31
	85%	September 1 through October 31 and June 1 through July 31
	90%	November 1 through May 31
Lower Estuary	For the protection of estuarine habitat (EST), the dissolved oxygen content of the lower estuary shall not be depressed to levels adversely affecting beneficial uses as a result of controllable water quality factors.	

1 States may establish site specific objectives equal to natural background (USEPA, 1986. Ambient Water Quality Criteria for Dissolved Oxygen, EPA 440/5-86-033; USEPA Memo from Tudor T. Davies, Director of Office of Science and Technology, USEPA Washington, D.C. dated November 5, 1997). For aquatic life uses, where the natural background condition for a specific parameter is documented, by definition that condition is sufficient to support the level of aquatic life expected to occur naturally at the site absent any interference by humans (Davies, 1997). These DO objectives are derived from the T1BSR run of the Klamath TMDL model and described in Tetra Tech, December 23, 2009 *Modeling Scenarios: Klamath River Model for TMDL Development.* They represent natural DO background conditions due only to non-anthropogenic sources and a natural flow regime.

2 These objectives apply to the maximum extent allowed by law. To the extent that the State lacks jurisdiction, the Site Specific Dissolved Oxygen Objectives for the Mainstem Klamath River are extended as a recommendation to the applicable regulatory authority.

3 Corresponding DO concentrations are calculated as daily minima, based on site-specific barometric pressure, site-specific salinity, and natural receiving water temperatures as estimated by the T1BSR run of the Klamath TMDL model and described in Tetra Tech, December 23, 2009. Modeling Scenarios: Klamath River Model for TMDL Development. The estimates of natural receiving water temperatures used in these calculations may be updated as new data or method(s) become available. After opportunity for public comment, any update or improvements to the estimate of natural receiving water temperature must be reviewed and approved by Executive Officer before being used for this purpose.