



Alan C. Lloyd, Ph.D.  
Agency Secretary

# California Regional Water Quality Control Board

## Central Valley Region

Sacramento Main Office  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114  
Phone (916) 464-3291 • Fax (916) 464-4645  
<http://www.waterboards.ca.gov>



Arnold Schwarzenegger  
Governor

**ORDER NO. R5-2005-XXX**  
**NPDES NO. CA0085120**

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

<b>Discharger</b>	Tsar Nicoulai Caviar, LLC, and the Ralph F. Nix 1995 Revocable Trust
<b>Name of Facility</b>	Tsar Nicoulai Sturgeon Farm, Wilton
<b>Facility Address</b>	10822 Gay Road
	Wilton, CA 95693
	Sacramento County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Aquacultural Wastewater	38 ° , 24 ' , 03" N	121 ° , 16 ' , 53" W	Unnamed Tributary of the Cosumnes River

This Order was adopted by the Regional Water Board on:	<Adoption Date>
This Order shall become effective on:	<Effective Date>
This Order shall expire on:	<Expiration Date>
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Thomas R. Pinkos, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on <Adoption Date>.

\_\_\_\_\_  
Thomas R. Pinkos, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
 REGION 5, CENTRAL VALLEY REGION**

ORDER NO. R5-2005-XXX  
 NPDES NO. CA0085120

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**I. FACILITY INFORMATION**

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

<b>Discharger</b>	Tsar Nicoulai Caviar, LLC, the Ralph F. Nix 1995 Revocable Trust
<b>Name of Facility</b>	Tsar Nicoulai Sturgeon Farm, Wilton
<b>Facility Address</b>	10822 Gay Road
	Wilton, CA 95693
	Sacramento County
<b>Facility Contact, Title, and Phone</b>	Jerry Schwartz, General Manager, (415) 543-3007
<b>Mailing Address</b>	60 Dorman Avenue, San Francisco, CA 94124
<b>Type of Facility</b>	Concentrated Aquatic Animal Production/ Fish Hatchery (CAAP Facility)
<b>Facility Design Flow</b>	Not Applicable

## II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Regional Water Board), finds:

- A. **Background.** Tsar Nicoulai Caviar, LLC submitted a complete Report of Waste Discharge (RWD), except for meeting California Environmental Quality Act requirements, dated October 12, 2004, and applied for a National Pollutant Discharge Elimination System (NPDES) permit authorization to discharge up to 3.1 million gallons per day (mgd) of treated wastewater from the Tsar Nicoulai Sturgeon Farm. The application was deemed complete on December 23, 2004. Tsar Nicoulai Caviar, LLC currently leases some of the land that houses a portion of the facility from the Ralph F. Nix 1995 Revocable Trust. Together Tsar Nicoulai Caviar, LLC and the Ralph F. Nix 1995 Revocable Trust are hereinafter referred to as Discharger.
- B. **Facility Description.** The Discharger owns and operates a fish farm. The treatment system consists of filtration, an aquatic vegetation pond for nutrient uptake, and a biofiltration system for ammonia and dissolved organics removal. Wastewater is discharged from Discharge Point 001 (see table on cover page) to the Sacramento County storm drain system, which flows to an unnamed tributary of the Cosumnes River, and is ultimately discharged to the Cosumnes River, a water of the United States within the North Valley Floor Hydrologic Unit. Attachment B provides a topographic map of the area around the Facility. Attachment C provides a flow schematic of the Facility.
- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.
- D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through I, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.
- E. **California Environmental Quality Act (CEQA).** The Regional Water Board has considered the Negative Declaration on DATE, and compliance with the requirements of this Order will mitigate or avoid the significant impacts to water quality.
- F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Effluent Limitations Guidelines and Standards for the Aquatic Animal Production Industry Category in 40 CFR 451 through the application of best available technology economically achievable (BAT) and the best conventional technology (BCT). A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

**G. Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR 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. Where numeric water quality objectives have not been established, 40 CFR Section 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

**H. Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (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 page II-2.00 states that the beneficial uses of any specifically identified water body generally applies to its tributary streams. The Basin Plan does not specifically identify beneficial uses for the unnamed tributary of the Cosumnes River, but does identify present and potential uses for the Cosumnes River, to which the unnamed tributary of the Cosumnes River is tributary. These beneficial uses are municipal and domestic supply (MUN); agricultural supply, irrigation and stock watering (AGR); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); warm and cold migration of aquatic organisms (MIGR); warm and cold spawning (SPWN); wildlife habitat (WILD). In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Thus, as discussed in detail in this Fact Sheet, beneficial uses applicable to the unnamed tributary of the Cosumnes River are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Unnamed Tributary of the Cosumnes River	<u>Existing:</u> MUN, AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

**I. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

**J. State Implementation Policy.** On March 2, 2000, 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 USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test

procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

- K. Compliance Schedules and Interim Requirements. Not applicable, new source discharge.**
- L. Antidegradation Policy.** Section 131.12 of 40 CFR requires that 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, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR Section 131.12 and State Water Board Resolution 68-16.
- M. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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. This is a new NPDES permit; therefore anti-backsliding provisions do not apply.
- N. Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- O. Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR Sections 122.41 and 122.42 apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- P. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.
- Q. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

**R. Finding for no More Stringent than Federal Law. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal Clean Water Act. Individual pollutant restrictions consist of technology-based restrictions and water quality-based**

effluent limitations. Technology based effluent limitations consist of best management practices to control BOD<sub>5</sub> and TSS. Water quality-based effluent limitations 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 water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 C.F.R. 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 1, 2001. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the [Clean Water] Act” pursuant to 40 C.F.R. 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the Clean Water Act and the applicable water quality standards for purposes of the Clean Water Act.

### **III. DISCHARGE PROHIBITIONS**

- A. Discharge of wastewater and solids at a location or in a manner different from that described by this Order is prohibited.
- B. The by-pass or overflow of untreated wastewater or wastes into any surface water or surface water drainage course is prohibited, except as allowed by Provision I.A.7 of Attachment D, Federal Standard Provisions.
- C. Practices that allow accumulated sludge, grit, and solid residues to be discharged to surface waters or surface water drainage courses are prohibited.
- D. Discharge of aquaculture drugs or chemical additives except salt is prohibited.

**IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS**

**A. Effluent Limitations – Discharge Point 001**

**1. Final Effluent Limitations – Discharge Point 001**

- a. The discharge of aquacultural wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	1.2	3.1	--	--
Total Iron	µg/L	300	--	--	--
	lbs/day	3.0	--	--	--
Total Manganese	µg/L	50	--	--	--
	lbs/day	0.50	--	--	--
Nitrate Nitrogen	mg/L	10	--	--	--
	lbs/day	100	--	--	--
Total Ammonia as N	mg/L	0.59	--	--	--
	lbs/day	5.9	--	--	--
Electrical Conductivity	µmhos/cm	700	--	--	--
pH	standard units	--	--	6.5	8.5

- b. The maximum 1-hour average effluent ammonia as N in the discharge shall not exceed 2.1 mg/L or 21 lbs/day.
- c. The Discharger shall minimize the discharge of total suspended solids to the BAT/BCT through implementing best management practices established in Special Provision VI.C.3 of this Order.

**2. Interim Effluent Limitations – Not Applicable**

**B. Land Discharge Specifications – Not Applicable**

**C. Reclamation Specifications – Not Applicable**

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the unnamed tributary of the Cosumnes River:

1. **Bacteria:** The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
2. **Dissolved Oxygen:** The monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation. The DO concentration shall not be reduced below 7.0 mg/L at any time.
3. **Oil and Grease:** Oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.
4. **Color:** Discoloration that causes nuisance or adversely affects beneficial uses.
5. **pH:** The ambient pH to be depressed below 6.5, nor raised above 8.5, nor changes in normal ambient pH levels to be exceeded by more than 0.5 units. A monthly averaging period may be used for determining compliance with the above 0.5 receiving water pH limitation.
6. **Temperature:** The natural receiving water temperature to increase more than 5°F.
7. **Settleable Matter:** Substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
8. **Radioactivity:** Radionuclides to be present in concentrations that are harmful to human, plant, animal or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.
9. **Concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations.**
10. **Toxicity:** Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.
11. **Biostimulatory Substances:** Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

12. Floating Material: Floating material in amounts that cause nuisance or adversely affect beneficial uses.
13. Sediment: Suspended sediment load and suspended sediment discharge rate altered in such a manner to cause nuisance or adversely affect beneficial uses.
14. Suspended Sediment: Suspended sediment concentrations that cause nuisance or adversely affect beneficial uses.
15. Taste and Order: Taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.
16. Turbidity: Changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity attributable to controllable water quality factors to exceed the following:
  - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
  - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
  - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
  - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
17. Pesticides:
  - a. Pesticides in individual or combined concentrations that adversely affect beneficial uses.
  - b. Pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.
  - c. Total identifiable persistent chlorinated hydrocarbon pesticides in concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the Executive Officer.
  - d. Concentrations exceeding those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 C.F.R. Section 131.12.)
  - e. Concentrations exceeding the lowest levels technically and economically achievable.
  - f. Concentrations exceeding the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
  - g. Concentrations of thiobencarb in excess of 1.0 mg/L.

18. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

## **B. Groundwater Limitations**

Release of waste constituents from any storage, treatment, or disposal component associated with the Facility shall not cause groundwater under and beyond the Facility (as determined by an approved well monitoring network) to contain any constituents in concentrations greater than ambient background conditions and shall not cause or contribute to the violation of any Basin Plan narrative or numeric water quality objective.

## **VI. PROVISIONS**

### **A. Standard Provisions**

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:
  - a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.
  - b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
    - i. Violation of any term or condition contained in this Order;
    - ii. Obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
    - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
    - iv. A material change in the character, location, or volume of discharge.

The causes for modification include:

- i. New regulations. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- ii. Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

- iii. Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Water Board may review and revise this Order at any time upon application of any affected person or the Regional Water Board's own motion.

- c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Regional Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

- d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 04(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
  - i. Contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
  - ii. Controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

- e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- f. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.
- g. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological waste is prohibited.
- h. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- i. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the CWC, Section 13050.

- j. Safeguard to electric power failure:
- i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, failure of electric power, the discharge shall comply with the terms and conditions of this Order.
  - ii. Upon written request by the Regional Water Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Regional Water Board.
  - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Regional Water Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Regional Water Board that the existing safeguards are inadequate, provide to the Regional Water Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Regional Water Board, become a condition of this Order.
- k. The Discharger, upon written request of the Regional Water Board, shall file with the Regional Water Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

The technical report shall:

- i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
- ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
- iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Regional Water Board, after review of the technical report, may establish conditions, which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

- l. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Regional Water Board by **31 January**. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Regional Water Board may extend the time for submitting the report.
- m. The Discharger shall submit technical reports as directed by the Executive Officer.
- n. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Water Board.
  - i. Unless otherwise specified, all metals shall be reported as Total Metals.
  - ii. Unless otherwise specified, all metals shall be reported as Total Metals.
    - 1) Acute bioassays shall be performed in accordance with guidelines approved by the Regional Water Board and the Department of Fish and Game or in accordance with methods described in USEPA's manual for measuring acute toxicity of effluents (EPA-821-R-02-012 and subsequent amendments).
    - 2) Short-term chronic bioassays shall be performed in accordance with USEPA guidelines (EPA-821-R-02-013 and subsequent amendments).
- o. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Regional Water Board and USEPA. ).

- p. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.
- q. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.
- r. The Discharger shall file with the Regional Water Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.
- s. Upon written request of the Regional Water Board, the Discharger shall submit a summary monitoring report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
- t. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
- u. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.
- v. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- w. The results of all monitoring required by this Order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows

## **B. Monitoring and Reporting Program Requirements**

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include additional prohibitions, effluent limitations or other discharge requirements in the event that the Discharger submits the required information under Section VI.C.2.a of this Order for the discharge of aquaculture chemicals or drugs in addition to salt.
- c. If after review of effluent monitoring results or the study results specified in Sections VI.C.2.b and VI.C.2.c it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective, or the discharge is causing groundwater degradation, this Order may be reopened and effluent limitations added for the subject constituents.
- d. If after review of the monitoring study results specified in Section VI.C.2.e it is determined that more stringent effluent limitations for electrical conductivity are needed, this Order may be reopened to include additional effluent limitations.
- e. If the ownership of that portion of the Facility property that is currently owned by the Ralph F. Nix 1995 Revocable Trust is transferred to Tsar Nicoulai Caviar, LLC, this Order will be reopened to remove the Ralph F. Nix 1995 Revocable Trust as a Discharger named to this Order.
- f. If monitoring or future investigations demonstrate that the discharge of TSS governed by this Order has a reasonable potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters this Order may be reopened to include more stringent effluent limitations for TSS including the establishment of numeric WQBELs if deemed necessary.

### **2. Special Studies, Technical Reports and Additional Monitoring Requirements**

- a. This permit authorizes the discharge of salt in accordance with the effluent limitations, BMP plan requirements, Monitoring and Reporting requirements and other conditions of this permit. Other aquaculture chemicals or drugs that may enter the wastewater discharge can only be authorized if the Discharger submits a RWD to the Regional Water Board that contains the following supplemental information, and the Regional Board has issued waste discharge requirements or this Order has been opened and revised:
  - 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 and available toxicity information.
- vi. Any related Investigational New Animal Drug (INAD), New Animal Drug Application (NADA) information, extra-label use requirements and/or veterinarian prescriptions.

The Discharger shall also submit acute toxicity test information on any new chemical or drug in accordance with methods specified in EPA600/4-90/027, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, using *Ceriodaphnia dubia* to determine the NOAEL, and LOAEL.

- b. There are indications that the discharge may contain constituents that have a reasonable potential to cause or contribute to an exceedance of water quality objectives: (CTR, NTR constituents (priority pollutants), and additional constituents that are specifically listed in Attachment G). The Discharger shall comply with the following time schedule in conducting a study of these constituents potential effect in surface waters:

<u>Task</u>	<u>Compliance Date</u>
i. Submit Workplan and Time Schedule to sample the effluent for constituents listed in Attachment G	<b>90 days</b> after effective date of this Order
ii. Begin Study	<b>30 days</b> after Executive Officer approval of task b.i
iii. Complete Study	<b>18 months</b> after start of study in task b.ii
iv. Submit Study Report	<b>21 months</b> after start of study in task b.iii

The Discharger shall submit to the Regional Water Board on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.

The Discharger must utilize USEPA test methods and detection limits to achieve detection levels below applicable water quality criteria. At a minimum the Discharger shall comply with the Monitoring Requirements for these constituents as outlined in Section 2.3 and 2.4 of the Policy for Implementation of Toxics Standards for Inland

Surface Waters, Enclosed Bays, and Estuaries of California, adopted March 2, 2000 by the State Water Resources Control Board. Report all peaks identified by the USEPA test methods.

- c. To determine compliance with the Groundwater Limitations, the discharger shall implement a groundwater monitoring program. The groundwater monitoring network shall include one or more background monitoring wells and a sufficient number of designated monitoring wells to evaluate performance of best practicable control technology (BPTC) measures, and to determine if the discharge has degraded groundwater. These include monitoring wells downgradient of every treatment, storage, and disposal unit, including solids disposal, drying or staging areas, which do or may release waste constituents to groundwater.

A groundwater monitoring well installation report shall be prepared by, or under the direction of, and signed by, a registered Geologist, Certified Engineering Geologist, or a Civil Engineer registered by the State of California, and shall contain the information as listed in Attachment I, *Items to be Included in a Monitoring Well Installation Workplan and a Monitoring Well Installation Report of Results*.

All monitoring wells shall comply with the appropriate standards as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981), and any more stringent standards adopted by the Discharger or County pursuant to CWC Section 13801. The Discharger shall characterize natural background quality of monitored constituents in a technical report, to be submitted in accordance with the time schedule provided below. For each groundwater monitoring parameter/constituent identified in the Monitoring and Reporting Program, the report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and a comparison of background groundwater quality to that in wells used to monitor the facility. Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least four consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations for compliance monitoring wells with the calculated background concentration.

If the monitoring shows that any constituent concentrations are increased above background water quality, the Discharger shall submit a technical report describing the evaluation's results and critiquing each evaluated component with respect to BPTC and minimizing the discharge's impact on groundwater quality. In no case shall the discharge be allowed to exceed a water quality objective. This Order may be reopened and additional groundwater limitations added.

The Discharger shall comply with the following schedule in implementing the work required by this Provision. Work plans and technical reports submitted pursuant to this Provision shall be subject to the requirements of Provision VI.A.2.t and are subject to Executive Officer approval.

	<u>Task</u>	<u>Compliance Date</u>
i.	Submit a Monitoring Well Installation Work Plan that meets the requirements specified in Attachment I	<b>Within 60 days</b> of the effective date of this Order
ii.	Implement monitoring well installation work plan with technical report on sampling procedures and proposed Data Analysis Methods as described in Section VIII.A.3 of Attachment E, MRP	<b>30 days</b> following Executive Officer of work plan submitted in accordance with task c.i
iii.	Complete monitoring well installation and well destruction and commence groundwater monitoring from newly installed wells	<b>60 days</b> following completion of task c.ii
iv.	Submit a Monitoring Well Installation Report	<b>30 days</b> following completion of task c.iii
v.	Submit technical report: natural background quality	<b>365 days</b> following start of monitoring plan in task c.iii
d.	The Discharger shall submit a technical report to demonstrate compliance with Provisions VI.C.5.b and VI.C.5.c of this Order:	

	<u>Task</u>	<u>Compliance Date</u>
i.	Submit Mosquito and Vector Control Plan that has been approved by the Sacramento-Yolo Mosquito and Vector Control District	<b>Within 30 days</b> of the effective date of this Order
ii.	Implement Mosquito and Vector Control Plan	<b>30 days</b> following Executive Officer approval of task d.i

The Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.

- e. The Discharger shall conduct the following study to demonstrate compliance with Provision VI.C.3.a.i, requiring the minimization of salt discharged to surface waters. The study shall adequately characterize the concentrations of salt in the effluent and source water to determine whether effluent limitations for electrical conductivity (EC) are needed.

<u>Task</u>	<u>Compliance Date</u>
i. Submit Workplan and Time Schedule to characterize the levels of EC, total dissolved solids (TDS), and chloride in Facility’s effluent and source water including that associated with the use and discharge of salt used during the treatment of fish.	<b>60 days</b> after effective date of this Order
ii. Begin Study	<b>30 days</b> after Executive Officer approval of task e.i
iii. Complete Study	<b>9 months</b> after start of study approved in task e.ii
iv. Submit Study Report	<b>12 months</b> after start of study approved in task e.ii

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

**a. Best Management Practices Plan**

**Within 60-days of adoption of this Order**, the Discharger shall certify in writing to the Regional Water Board that it has developed a Best Management Practices (BMP) plan. The Discharger shall develop and implement the BMP plan to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State. The Discharger shall develop and implement a BMP plan consistent with the following objectives:

- i. Minimize the discharge of salt to surface waters.
- ii. Solids Management
  - 1) Conduct fish feeding in aquaculture ponds in a manner that limits feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth and minimizes the discharge of unconsumed food and waste products to surface waters.
  - 2) Clean aquaculture ponds using procedures and at frequencies that minimize the disturbance and subsequent discharge of accumulated solids during routine activities such as inventorying, grading, and harvesting.
  - 3) Report the final disposition of all other solids and liquids, including aquaculture drugs and chemicals, not discharged to surface waters in the effluent.

- 4) Collect, store, and dispose of fish mortalities and other solids in an environmentally safe manner and in a manner so as to prevent the discharge to waters of the United States or waters of the State, unless such discharge is authorized by an NPDES permit or WDRs.

iii. Operations and Maintenance

- 1) Maintain in-system production and wastewater treatment technologies to prevent the overflow of any floating matter or bypassing of treatment technologies.
- 2) Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
- 3) Ensure storage and containment of drugs, chemicals, fuel, waste oil, or other materials to prevent spillage or release into the aquatic animal production Facility, waters of the United States, or waters of the State.
- 4) Implement procedures for properly containing, cleaning, and disposing of any spilled material.
- 5) Prevent fish from being released within the FDA-required withdrawal time of any drug or chemical with which they have been treated.

iv. Recordkeeping

- 1) Maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals in order to calculate representative feed conversion ratios.
- 2) Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

v. Training

- 1) Adequately train all relevant 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.
- 2) Train staff on the proper operation and cleaning of production and wastewater treatment systems, including training in feeding procedures and proper use of equipment.

The Discharger shall ensure that its operations staff are familiar with the BMP Plan and have been adequately trained in the specific procedures it requires.

#### **4. Compliance Schedules – Not Applicable**

#### **5. Construction, Operation and Maintenance Specifications**

a. Solids disposal specifications:

- i. Collected screenings, sludges, and other solids, including fish carcasses, shall be disposed of in a manner approved by the Executive Officer and consistent *with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.
- ii. The application of solids to land shall be consistent with reasonable agronomic loading rates that preclude development of vectors or other nuisance conditions and that will not exceed the amount needed to meet crop demand at the time of application or stage of crop growth considering the crop, soil, climate, irrigation management system, type of solid, and local conditions.
- iii. The discharge of solid waste to lands not owned or controlled by the Discharger, or in a manner not approved by the Executive Officer, is prohibited.
- iv. Crops shall be grown on the application area. Crops shall be selected based on nutrient uptake capacity, tolerance to high soil moisture conditions, and consumptive use of water and irrigation requirements. Cropping activities shall be sufficient to take up all the nitrogen applied. Any annual crop shall be harvested and removed from the application area.
- v. Any proposed change in solids disposal from a previously approved practice (as described in this Order) shall be reported to this office at least 90 days in advance of the change.

b. Treatment pond specifications:

- i. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas or property owned by the discharger.
- ii. The dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/L.
- iii. Ponds shall not have a pH less than 6.5 or greater than 8.5.
- iv. Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration. Design seasonal precipitation shall be based on total annual precipitation using a return period of 25 years, distributed monthly in accordance with historical rainfall patterns.

- v. Freeboard shall never be less than two feet (measured vertically to the lowest point of overflow).
- vi. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
  - 1) An erosion control program should assure that small coves and irregularities are not created around the perimeter of water surfaces.
  - 2) Weeds shall be minimized, through control of water depth, harvesting, or herbicides.
  - 3) Dead algae, dead vegetation, and debris shall not accumulate on water surfaces.
- c. Areas utilized to collect and transport wastewater, or to treat wastewater shall be managed to prevent breeding of mosquitoes. More specifically,
  - i. Ditches shall be free of emergent, marginal and floating vegetation.
  - ii. Standing water shall not be allowed for greater than 48-hours.
  - iii. Low pressure and un-pressurized pipelines and ditches accessible to mosquitoes shall not be used to store wastewater.
  - iv. Fish tank leakage shall not create standing water.

## **6. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable**

## **7. Other Special Provisions**

- a. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).
- b. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision V.B, Attachment D, and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

## VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

### A. Average Monthly Effluent Limitation (AMEL).

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger 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). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

### B. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

### C. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger 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).

### D. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger 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).

### E. Maximum 1-Hour Average.

If the analytical result of a samples collected within 1-hour are higher than the maximum 1-hour average effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter.