

ATTACHMENT F – FACT SHEET

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As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	9 000000577
Discharger	Hubbs-SeaWorld Research Institute
Name of Facility	Leon Raymond Hubbard, Jr. Marine Fish Hatchery
Facility Address	4200 Garfield Street
	Carlsbad, CA 92008
	San Diego County
Facility Contact, Title and Phone	Donald B. Kent, Executive Director, (760) 434-9501
Authorized Person to Sign and Submit Reports	SAME
Mailing Address	SAME
Billing Address	2595 Ingraham Street San Diego, CA 92109
Type of Facility	CAAP
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	B
Pretreatment Program	NA
Reclamation Requirements	NA
Facility Permitted Flow	1.73 MGD
Facility Design Flow	1.73 MGD
Watershed	Agua Hedionda
Receiving Water	Agua Hedionda Lagoon
Receiving Water Type	Enclosed Bay

- A.** Hubbs-SeaWorld Research Institute (hereinafter referred to as Discharger) is the owner and operator of the Leon Raymond Jr. Marine Fish Hatchery (hereinafter Facility), a non-commercial Concentrated Aquatic Animal Production facility that produces and releases native marine species.

For the purposes of this 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 Discharger herein.

- B.** The Facility discharges wastewater to Agua Herdionda Lagoon, a water of the United States, pursuant to Order No. R9-2001-0237 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0109355. The terms and conditions of the

Order No. R9-2001-0237 have been automatically continued until the requirements of Order No. R9-2007-0026 become effective.

- C. The Discharger submitted a Report of Waste Discharge submitted for Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System on April 13, 2006. A site visit was conducted on September 28, 2006 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger withdraws up to 1.73 MGD of seawater from the Agua Hedionda Lagoon to operate the marine fish hatchery for the production and release of native marine species, mainly seabass. The withdrawn seawater passes through rapid sand filters for particulate removal and the filtered seawater is directed to either a flow through pen rearing system or to a water recirculation system. Settled materials including debris, fish waste, feed wastes, and other settled solids are siphoned from the fish rearing pens and discharged to the sanitary sewer system. Some filter backwash is also removed from the sand filter system and discharged to the sanitary sewer system. The combined wastewater from these two types of fish rearing systems is discharged back into Agua Hedionda Lagoon through Discharge Point 001 (see table on cover page).

B. Discharge Points and Receiving Waters

Wastewater is discharged from the Facility to the Agua Hedionda Lagoon through Discharge Point 001 (33 °, 08', 40" N latitude 117 °, 20', 39" W longitude).

The 400-acre Agua Hedionda Lagoon was created in 1954. The lagoon supports recreational and commercial uses, but tidal influenced water body, with large wetlands supporting several endangered species. The majority of the lagoon is owned and maintained by Cabrillo Power II, owners of a 900-megawatt power plant located on the outer segment of the lagoon. The entire lagoon was completely re-dredged in 1998/1999 to an average depth of 8 to 11 feet, significantly increasing tidal flushing.

C. Summary of Self-Monitoring Report (SMR) Data

Table 2 lists a summary of influent and effluent data for constituents of concern from 2002 through 2005.

Table 2. Historic Self Monitoring Data

Parameter	Units	Influent Monitoring Data (From 2002 – 2006)			Effluent Monitoring Data (From 2002 – 2006)		
		Average Monthly	Average Quarterly	Maximum Daily	Average Monthly	Average Quarterly	Maximum Daily
Copper	ug/l		7.0	80.9		4.4	18.2

Parameter	Units	Influent Monitoring Data (From 2002 – 2006)			Effluent Monitoring Data (From 2002 – 2006)		
		Average Monthly	Average Quarterly	Maximum Daily	Average Monthly	Average Quarterly	Maximum Daily
Zinc	ug/l		74.4	188.0		47.9	139.0
Total Nitrogen	mg/l	0.70		1.72	0.98		7.57
Phosphorus	mg/l	0.18		1.0	0.24		0.65

D. Compliance Summary

The Facility was in compliance with Order No. R9-2001-0137 during the 2001-2006 permit cycle.

E. Planned Changes

There are no planned changes to the Facility described in the report of waste discharge.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. 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 (commencing with section 13370). 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, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the San Diego Basin (hereinafter Basin Plan) on September 8, 1994 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 was subsequently approved by the State Water Resources Control Board (State Water Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional

Water Board and approved by the State Water Board. The Basin Plan identifies the following beneficial for the Agua Hedionda Lagoon:

Table 3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Agua Hedionda Lagoon	Industrial Service Supply; Contact Water Recreation; Non-Contact Water Recreation; Commercial and Sport Fishing; Wildlife Habitat; Rare, Threatened, or Endangered Species; Marine Habitat; Aquaculture; Migration of Aquatic Organisms; Reproduction, and/or Early Development; Shellfish Harvesting

2. **Thermal Plan.** The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. Because the discharge from the Facility is waste seawater from a flow-through aquarium system, the temperature of the discharge is expected to be relatively unchanged from the temperature of the intake water. Receiving water limitations of this Order implement the Thermal Plan.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA 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, USEPA 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 water quality criteria for priority pollutants.

4. **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 USEPA 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 USEPA 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. This Order implements the requirements of the SIP.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being

used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

- 6. Antidegradation Policy.** 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 No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 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 section 131.12 and State Water Board Resolution No. 68-16.
- 7. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations¹ section 122.44(l) prohibit 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.

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

On October 25, 2006, the State Water Board updated the list of impaired water bodies, prepared pursuant to Section 303 (d) of the CWA. The draft 303 (d) list includes the Agua Hedionda Lagoon, which is impaired for indicator bacteria and sedimentation/siltation. The proposed completion date for the bacteria TMDL is 2010. The proposed TMDL completion date for the sedimentation/siltation TMDL is 2019. The discharge from the Facility is not a likely significant source of either of these pollutants

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers 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: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

A. Discharge Prohibitions

1. California Water Code Section 13243 provides that the Regional Board, in a water quality control plan, may specify certain conditions where the discharge of wastes or certain types of wastes that could affect the quality of waters of the state is prohibited. The Basin Plan prohibitions are incorporated by reference in the Order, and Prohibition III.A requires the Discharger to comply with the Basin Plan prohibitions.
2. Prohibition III.B specifically implements Waste Discharge Prohibition 3 of the Basin Plan.
3. In developing the requirements of this Order, the Regional Water Board specifically considered the discharge of 1.73 MGD as a calendar-monthly average. A discharge in excess of this authorized flowrate has not been considered and is therefore prohibited Prohibition B.5.

B. Technology-Based Effluent Limitations

1. The USEPA has promulgated effluent limit guidelines (ELGs) for the discharge of wastewater from Confined Aquatic Animal Production (CAAP) facilities that have flow through/recirculating pen systems, produce at least 100,000 pounds of aquatic animals per year, and discharge for at least 30 days per year. The Facility produces less than 100,000 pounds of animals per year and therefore not subject to Technology Based Effluent Limitations. However, the ELGs for CAAP facilities are BMP based and could apply to many of the operations at the Facility. Section VI.B.3 applies some of the basic requirements of the ELGs and includes specifications for feeding, cleaning, and disposing of wastes.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 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) mandates 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) USEPA 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. Basin Plan

The Basin Plan and its subsequent revisions establish the beneficial uses for San Diego Bay described previously in this Fact Sheet. The Basin Plan includes the following applicable water quality objectives (WQO) for enclosed bays and estuaries, which have been incorporated into Order R9-2007-0026:

- (1) Ammonia, un-ionized. The discharge of wastes shall not cause concentrations of un-ionized ammonia (NH₃) to exceed 0.025 mg.L (as N).
- (2) Bacteria – Total and Fecal Coliform and Enterococci.
 - (a) In waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than 10 percent of the total samples during any 30-day period exceed 400 per 100 ml.
 - (b) In waters designated for shellfish harvesting (SHELL), the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 ml for five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
 - (c) In waters designated for contact recreation (REC-1), the enterococci concentration shall not exceed 35/100 ml in all areas, 104/100 ml in designated beach areas, 276/100 ml in moderately or lightly used areas, and 500/100 ml in infrequently used areas.
- (3) Biostimulatory Substances. Inland surface waters, bays and estuaries and coastal lagoon waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.
- (4) Color. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other resources in inland surface waters, coastal lagoon or bay and estuary shall not be impaired.
- (5) Floating Material. Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.
- (6) pH. In bays and estuaries, the pH shall not be depressed below 7.0 nor raised above 9.0

- (7) Oil and Grease. Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses.
- (8) Suspended and Settleable Solids. Waters shall not contain suspended and settleable solids in concentration of solids that cause nuisance or adversely affect beneficial uses.
- (9) Toxicity. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- (10) Turbidity. The transparency of the waters in lagoons and estuaries shall not be less than 50% of the depth at locations where measurement is made by means of a standard Secchi disk, except where lesser transparency is caused by rainfall runoff from undisturbed natural areas and dredging projects conducted in conformance with waste discharge requirements of the Regional Board. With these two exceptions, increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:

Natural Turbidity	Maximum Increase
0—50 NTU	20% over natural turbidity level
50—100 NTU	10 NTU
Greater than 100 NTU	10% over natural turbidity level

b. California Toxics Rule (CTR) and State Implementation Policy (SIP)

The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted National Toxics Rule criteria that were applicable in the state. These rules contain water quality criteria for priority pollutants. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Order No. R9-2007-0026 has been written in accordance with the SIP.

3. Determining the Need for WQBELs

- a. A WQBEL for pH is included in the Order because all discharges to a receiving water have the potential to alter the pH of the receiving water.
- b. A WQBEL for zinc has been included in the Order because of the potential addition of zinc to the discharge from the feed for the aquatic organisms.
- c. A WQBEL for total nitrogen and phosphorus is included in the Order because the discharge from the Facility consists of waste seawater that can reasonably be expected to contain feed and fecal wastes containing nitrogen and phosphorus from aquatic organisms. Because the levels of nitrogen and phosphorus in receiving waters that can result in biostimulatory effects is quite low (i.e., 0.25 & 0.025 mg/L in

a standing body of water), there is reasonable potential for the discharge to result in a biostimulatory effect from the discharge of nitrogen and phosphorus.

- d. A WQBEL for copper has not been included in the Order because the use of copper sulfate as a fish bath has been discontinued. No other sources of copper that would be added to the wastewater have been identified in the Facility's system. Monitoring data supports this conclusion since the average effluent copper levels are consistently below influent levels.
- e. A WQBEL for un-ionized ammonia is not included in the Order. Because un-ionized ammonia is dependent on pH, the impact of ammonia that may be in the Facility discharge on water quality in the Agua Hedionda Lagoon can be assessed from information on the total ammonia content of the discharge and the pH of the discharge and receiving water. This Order includes a total nitrogen effluent limitation and includes a Monitoring and Reporting requirement to also report levels of ammonia and pH in the discharge.
- f. WQBELs have not been specified in the Order for CTR pollutants which were not detected in monitoring completed under Order No. R9-2001-0237 from 2001-2006 and are not expected to be discharged from the Facility.

4. WQBEL Calculations

- a. The WQBELs for bacteria, turbidity, and pH are set equal to WQO.
- b. The WQBELs for zinc, total nitrogen, and phosphorus have been established using the SIP, Section 1.4.4 Intake Water Credits. This SIP section allows the Facility to discharge a mass and concentration of the intake water pollutant that is no greater than the mass and concentration found in the facility's intake water. The effluent limitations for zinc, total nitrogen, and phosphorus in this Order are based on the levels of pollutants in the intake seawater because the following conditions have been met:
 - (1) The maximum ambient background levels for these pollutants exceed both CTR and Basin Plan levels.
 - (2) The discharge is not subject to an approved TMDL.
 - (3) The ambient background levels of the pollutants in the Agua Hedionda Lagoon and intake water are similar.
 - (4) The intake and discharge points are located within the Agua Hedionda Lagoon.
 - (5) The water quality characteristics are similar in the intake and the Agua Hedionda Lagoon.
 - (6) The intake water pollutants would have reached the discharge point and had the same effect had it not been diverted by the Discharger.
 - (7) The Facility has not altered the intake water pollutant chemically or physically in a manner that adversely affects water quality and beneficial uses.
 - (8) The timing and location of the discharge does not cause adverse effects on the water quality and beneficial uses that would not occur if the intake water pollutants had been left in the Agua Hedionda Lagoon.

- c. Mixing zones or dilution credits have not been applied to WQBEL calculations since background levels of zinc, nitrogen, and phosphorus in the Agua Hedionda Lagoon currently exceed water quality objectives and CTR levels.

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) tests measure the aggregate toxic effect of a mixture of pollutants that may be present in a waste stream and provides information on potential toxic impacts to receiving waters from the discharge of wastes. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach provides a means of assessing compliance with the narrative toxicity water quality objective for aquatic life protection of the Basin Plan while implementing numeric criteria for toxicity. 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 toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and development.

Monitoring data from the last 5 years indicates the Facility has not exceeded the acute and chronic toxicity limitations in the previous permit and therefore the discharge is not likely to cause or contribute toxicity in the Agua Hedionda Lagoon. This Order does not include effluent limitations for acute or chronic toxicity.

The SIP requires that a Toxicity Reduction Evaluation (TRE) be conducted if a discharge causes or contributes to chronic toxicity in a receiving water body. This Order requires the Discharger to periodically monitor the toxicity of its discharge and to develop a TRE Workplan. Because this Order does not include toxicity effluent limitations, this Order also includes a numeric monitoring trigger and requires the discharger to conduct a TRE if the chronic toxicity of the discharge exceeds the numeric monitoring trigger. The value of the numeric monitoring trigger is equal to the chronic toxicity water quality objective of the 2005 California Ocean Plan.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

2. Satisfaction of Antidegradation Policy

Waste Discharge Requirements for the Facility discharge to the Agua Hedionda Lagoon must conform with federal and state antidegradation policies provided at 40 C.F.R. 131.12 and in State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. The antidegradation policies require that beneficial uses and the water quality necessary to maintain those beneficial uses in the receiving waters of the discharge shall be maintained

and protected, and, if existing water quality is better than the quality required to maintain beneficial uses, the existing water quality shall be maintained and protected unless allowing a lowering of water quality is necessary to accommodate important economic and social development or consistent with maximum benefit to the people of California. When a significant lowering of water quality is allowed by the Regional Water Board, an antidegradation analysis is required in accordance with the State Water Board's Administrative Procedures Update (July 2, 1990), Antidegradation Policy Implementation for NPDES Permitting.

The Facility will not discharge pollutants above ambient background levels. Provided the discharge complies with the requirements of this Order, the discharge is not expected to have impact the water quality or impair beneficial uses in the Agua Hedionda Lagoon.

3. Stringency of Requirements for Individual Pollutants

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 CTR, the CTR is the applicable standard pursuant to section 131.38. 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 CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Interim Effluent Limitations

Based on effluent monitoring data since 2001, the Discharger may be unable to consistently comply with the final effluent limitations for nitrogen and phosphorus in Section IV.A.1 of the Order. This Order prescribes interim effluent limitations for these constituents. The Order contains a compliance schedule that allows the Discharger up to 4 years to comply with the final effluent limitations for nitrogen and phosphorus. Within the 1 year after the effective date of the Order, the Discharger must submit a compliance plan and time schedule that describes the steps that will be taken to ensure compliance with the final effluent limitations for total nitrogen and phosphorus. The plan must include a technical evaluation of options to achieve compliance with the final effluent limitations including, for example, evaluating existing treatment unit processes, upgrading treatment processes, or evaluating alternative discharge locations.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations of Order No. R9-2007-0026 are derived from the water quality objectives for bays and estuaries established by the Basin Plan (1994).

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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

A. Influent Monitoring

Influent monitoring for zinc, total nitrogen, and phosphorus is necessary to establish ambient background concentration that serve as effluent limitations. Influent monitoring for CTR Priority Pollutants for a period of one (1) year before the permit renewal is necessary for provide data to verify the reasonable potential analysis for next reissuance of the NPDES permit.

B. Effluent Monitoring

Effluent monitoring is required for the same pollutants as influent monitoring (Table 2). Effluent monitoring for zinc, total nitrogen, and phosphorus is necessary to determine compliance with the effluent limits established by influent monitoring. TSS, pH, and turbidity monitoring is necessary to determine compliance with water quality based effluent limitations. Effluent monitoring data will be compared to the influent monitoring results. Effluent monitoring for CTR Priority Pollutants 1 year before the permit renewal is necessary for provide data to verify the reasonable potential analysis for next reissuance of the NPDES permit.

C. Whole Effluent Toxicity Testing Requirements

This Order requires chronic toxicity of the Facility discharge to be monitored once every 5 years is necessary to provide data to verify the reasonable potential analysis for the next reissuance of the NPDES permit. The SIP incorporates by reference the test methods for chronic toxicity in Appendix II, “Chapter IV. Compliance With Toxicity Limitations and Objectives” of the California Ocean Plan.

VII. Rationale for Provisions

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

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. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in 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 Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

Order No. R9-2007-0026 may be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR Sections 122, 124, and 125.

2. Compliance Schedule

The Order contains a compliance schedule that allows the Discharger up to 4 years to comply with the final effluent limitations for nitrogen and phosphorus. Within the 1 year after the effective date of the Order, the Discharger must submit a compliance plan and time schedule that describes the steps that will be taken to ensure compliance with the final effluent limitations total nitrogen and phosphorus. The plan should evaluate options to achieve compliance with the final effluent limitations including, for example, evaluating existing treatment unit processes, upgrading treatment processes, or evaluating alternative discharge locations.

Section 4-9 of the Basin Plan allows the Regional Board to establish compliance schedules in NPDES requirements for existing dischargers, where achieving immediate compliance with new or more stringent water quality based effluent limitations is infeasible. Influent monitoring data since 2001 indicates that the water quality objectives for nitrogen and phosphorus have already been exceeded in the receiving water. The Order includes final effluent limitations that require nitrogen and phosphorus effluent levels not to exceed the influent levels. Based on monitoring data since 2001, the Discharger may be unable to consistently comply with these final effluent limitations for nitrogen and phosphorus. Therefore, the Order includes a compliance schedule and interim effluent limitations consistent with the Basin Plan.

3. Construction, Operation, and Maintenance Specifications

The BMP specifications for proper management, operation, and maintenance of the fish hatchery are based on the ELGs for CAAP facilities. The Facility is likely implementing these already and the specifications are included to ensure their continued implementation.

C. Compliance Determination

1. Average Monthly Effluent Limitation, Maximum Daily Effluent Limitation, etc.

Provisions VII.A – VII.H outline the manner by which all instances of non-compliance will be identified consistent with the definitions in Attachment A. These provisions assert that a violation of an effluent limitation based on an average or median over a period consisting of several days results in a violation or non-compliance on each day during the period considered for the average or median. This assertion is based on USEPA Memorandum “Issuance of Guidance Interpreting Single Operational Upset” dated September 27, 1989 in which USEPA clearly states that “The violation of a monthly average limitation is counted as one day of violation for each day in the month, e.g., 30 days of violation in a 30-day month.” These provisions only state how violations will be identified and counted but not the type of enforcement action that will be taken or the amount of penalty to be assessed which depend on the type of penalty being proposed for assessment (i.e., discretionary administrative civil liability or mandatory minimum penalties) and other enforcement consideration factors.

2. Multiple Sample Data Reduction

This provision implements the Reporting Requirements provisions of the SIP.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, San Diego 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 San Diego State University Research Foundation. 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 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. Notification was provided through the following posting of the Order on the Regional Board website and publication in newspapers.

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 Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on October 31, 2007.

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 14, 2007
Time: 9:00 AM
Location: **Water Quality Control Board
Regional Board Meeting Room
9174 Sky Park Court
San Diego, CA 92123**

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/sandiego> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. 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

E. Information and Copying

The Report of Waste Discharge (RWD), 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 (858) 467-2952.

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 order should be directed to Eric Becker via e-mail at ebecker@waterboards.ca.gov at (858) 492-1785.