



# California Regional Water Quality Control Board

## Central Coast Region



Linda S. Adams  
Secretary for  
Environmental Protection

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Arnold Schwarzenegger  
Governor

**ORDER NO. R3-2010-0012**  
**NPDES NO. CA0048160**

### WASTE DISCHARGE REQUIREMENTS FOR THE GOLETA SANITARY DISTRICT WASTEWATER TREATMENT PLANT SANTA BARBARA COUNTY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 1. Discharger Information**

<b>Discharger</b>	Goleta Sanitary District
<b>Name of Facility</b>	Goleta Sanitary District Wastewater Treatment Plant (WWTP)
<b>Facility Address</b>	One William Moffett Place
	Goleta, California 93117
	Santa Barbara County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the Goleta Sanitary District from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

**Table 2. Discharge Location**

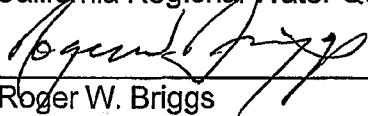
Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Municipal Wastewater	34 <sup>o</sup> , 24', 06" N	119 <sup>o</sup> , 49', 27" W	Pacific Ocean

**Table 3a. Administrative Information for State Order**

This Order was adopted by the Regional Water Quality Control Board on:	May 13, 2010
This Order shall become effective on:	September 1, 2010
This Order shall expire on:	September 1, 2015
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	March 5, 2015

**IT IS HEREBY ORDERED**, that Order No. R3-2004-0129 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water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.

This certifies that the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on May 13, 2010.



Roger W. Briggs  
Executive Officer, Central Coast Region  
California Regional Water Quality Control Board

**Table 3b. Administrative Information for Federal Permit**

This Permit was issued by the U.S. Environmental Protection Agency, Region IX on:	July 1, 2010
This Permit shall become effective on:	September 1, 2010
This Permit shall expire on:	September 1, 2015
The Discharger submit, in accordance with 40 CFR 122.21(d), a new application at least 180 days before:	September 1, 2015

I, Alexis Strauss, do hereby certify that this Permit with all attachments is a full true, and correct copy of an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on July 1, 2010.

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Alexis Strauss  
Director, Water Division, Region IX  
U.S. Environmental Protection Agency

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**I. FACILITY INFORMATION**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 4. Facility Information**

<b>Discharger</b>	Goleta Sanitary District
<b>Name of Facility</b>	Goleta Sanitary District Wastewater Treatment Plant
<b>Facility Address</b>	One William Moffett Place
	Goleta, California 93117
	Santa Barbara County
<b>Facility Contact, Title, and Phone</b>	Jeff Salt, Operations Manager, 805-967-4519
<b>Mailing Address</b>	One William Moffett Place Goleta, California 93117
<b>Type of Facility</b>	Publicly Owned Treatment Works (POTW)
<b>Facility Design Flow</b>	9.0 million gallons per day (MGD) Average Dry Weather Flow
	9.7 MGD Peak Dry Weather Flow

## II. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (hereinafter Regional Water Board) and the U.S. Environmental Protection Agency, Region IX (hereinafter USEPA), find:

- A. Background.** Goleta Sanitary District (hereinafter Discharger) is currently discharging pursuant to Order No. R3-2004-0129 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048160. An NPDES permit modifying secondary treatment requirements was reissued to the Discharger by USEPA and the Regional Water Board on November 19, 2004 (NPDES Permit No. CA0048160). The permit expired November 19, 2009, but continues in force until the effective date of the new permit, in accordance with 40 CFR Part 122.6. The Discharger applied for reissuance of its 301(h)-modified permit on May 29, 2009. The Discharger's application requests renewal of the following effluent limitations:

Constituent	Monthly Average	Instantaneous Maximum
Biochemical Oxygen Demand (mg/L)	98	150
Suspended Solids (mg/L)	63	100

These effluent limitations are based on the Goleta Sanitary District's WWTP current discharge and permit flow limitation of 7.64 million gallons per day (MGD).

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. Facility Description.** The Discharger owns and operates a wastewater collection and treatment system, which currently serves a population of approximately 82,000 people. The treatment system consists of primary settling, biofiltration, aeration, secondary clarification, chlorine disinfection, and dechlorination. Wastewater flows greater than 4.38 million gallons per day (MGD) receive primary treatment only and are blended with treated secondary wastewater prior to disinfection and discharge to the ocean. Treated wastewater is discharged to the Pacific Ocean through a diffuser 5,912 feet offshore at a depth of approximately 87 feet, which provides a minimum dilution of 122:1. Attachment B provides a map with the facility and outfall locations. Attachment C provides a flow schematic of the facility.

Sludge is treated in three heated anaerobic digesters. Sludge from the digesters is discharged into stabilization basins for settling. Once stabilized, the sludge is either sent to drying beds or dewatered through a belt filter press.

- C. Legal Authorities.** This Order/Permit 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 jointly issued 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).

- D. Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order/Permit based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order/Permit requirements, is hereby incorporated into this Order/Permit and constitutes part of the Findings for this Order/Permit. Attachments A through E are also incorporated into this Order/Permit.
- E. 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 21100-21177. This action regulates an existing facility and involves negligible or no expansion of use, and is also exempt from the provisions of the CEQA in accordance with Section 15301, Title 14 of the California Code of Regulations.
- F. Technology-based Effluent Limitations.** CWA Section 301 (b) and USEPA's NPDES regulations at Title 40 of the Code of Federal Regulations (40 CFR) 122.44 require that permits include, at a minimum, conditions meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges to surface waters must meet minimum federal technology-based requirements based on secondary treatment standards established at 40 CFR Part 133 and best professional judgment (BPJ) in accordance with 40 CFR 125.3. However, due to the provisions set forth in 40 CFR Part 125.57 discharges authorized by this Order/Permit are subject to modified secondary standards. A detailed discussion of development of technology-based effluent limitations is included in the Fact Sheet (Attachment F).
- G. Water Quality-Based Effluent Limitations.** 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.

NPDES regulations at 40 CFR 122.44 (d)(1)(i) mandate 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 is 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 at 40 CFR 122.44 (d)(1)(vi).

**H. Water Quality Control Plans.** The Regional Water Board adopted the *Water Quality Control Plan for the Central Coast Region* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region. To address ocean waters, the Basin Plan incorporates by reference the *Water Quality Control Plan for Ocean Waters of California* (the Ocean Plan). The Ocean Plan is discussed in further detail in Section I of this Order/Permit.

The Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because total dissolved solids (TDS) levels of marine waters exceed 3,000 mg/L, such waters are not considered suitable for municipal or domestic supply and therefore meet an exception to Resolution No. 88-63. Beneficial uses established by the Basin Plan for the Estero Bay coastal waters are presented in Table 5, below.

**Table 5. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<ul style="list-style-type: none"> <li>• Water Contact (REC-1),</li> <li>• Non-Contact Recreation (REC-2),</li> <li>• Navigation (NAV),</li> <li>• Industrial Water Supply (IND)</li> <li>• Shellfish Harvesting (SHELL)</li> <li>• Commercial and Sport Fishing (COMM),</li> <li>• Marine Habitat (MAR),</li> <li>• Rare, Threatened, or Endangered Species (RARE), and</li> <li>• Wildlife Habitat (WILD)</li> </ul>

Requirements of this Order/Permit implement the Basin Plan.

**I. California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005, and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:



**Table 6. Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	<ul style="list-style-type: none"> <li>• Industrial Water Supply (IND)</li> <li>• Water Contact and Non-Contact Recreation, including Aesthetic Enjoyment (REC)</li> <li>• Navigation (NAV)</li> <li>• Commercial and Sport Fishing (COMM)</li> <li>• Mariculture (MARI)</li> <li>• Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS)</li> <li>• Rare and Endangered Species (RARE)</li> <li>• Marine Habitat (MAR), and</li> <li>• Fish Migration (MIGR)</li> <li>• Fish Spawning and Shellfish Harvesting (SPWN)</li> </ul>

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order/Permit implement the Ocean Plan.

**J. 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.

**K. Stringency of Requirements for Individual Pollutants.** This Order/Permit contains effluent limitations for total suspended solids (TSS) and biochemical oxygen demand (5-day @ 20°C; BOD5) based on CWA section 301(h), as described in the Fact Sheet for this permit. This Order contains technology-based effluent limitations for oil and grease, settleable solids, turbidity, and pH, based on Table A requirements in the Ocean Plan. This Order/Permit's technology-based effluent limitations are not more stringent than required by the CWA.

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. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by USEPA on February 14, 2006.

All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by the 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 CFR. 131.21 (c) (1). Collectively, this Order/Permit's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

- L. Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require 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 quality of waters 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. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- M. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 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. All effluent limitations in this Order/Permit are at least as stringent as the effluent limitations in the previous Order/Permit, with some minor exceptions due only to the appropriate use of rounding the results of effluent limit calculations for this Order/Permit.
- N. Endangered Species Act.** This Order/Permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order/Permit requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- O. Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- P. Standard and Special 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 Regional Water Board and USEPA have also included in this

Order/Permit special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order/Permit is provided in the attached Fact Sheet.

- Q. Recycled Water Policy.** A priority of the Strategic Plan Update 2008-2012 for the Water Boards is to increase sustainable local water supplies available for existing and future beneficial uses by 1,725,000 acre-feet per year, in excess of 2002 levels, by 2015, and to ensure adequate water flows for fish and wildlife habitat. The State Water Resources Control Board (State Water Board) adopted the Recycled Water Policy (Resolution No. 2009-0011) on February 3, 2009. The Recycled Water Policy is intended to support the Strategic Plan priority. Increasing public acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in greenhouse gases, a significant driver of climate change.

The Recycled Water Policy calls for the development of regional groundwater basin/sub-basin salt/nutrient management plans. The State Water Board recognizes that local water and wastewater entities, together with other local salt/nutrient contributors to the State's groundwaters, will fund and develop salt and nutrient management plans for each basin/sub-basin in California. Plan development will be locally driven and controlled, collaborative, and will be open to all stakeholders, including Regional Water Board staff. Plans will comply with CEQA. State Water Board's recognition of local control is in response to the December 19, 2008 letter from statewide water and wastewater entities, attached to Resolution No. 2009-0011, which adopted the Policy.

It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or sub-regional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Central Coast Water Board finds that a combination of regional management plans and individual or programmatic project requirements may be necessary to protect beneficial uses.

One of the primary components of the required regional salt/nutrient management plans is the development and implementation of groundwater basin/sub-basin monitoring programs. As specified in the Recycled Water Policy, salt/nutrient contributing stakeholders will be responsible for conducting, compiling, and reporting the monitoring data once the regional groundwater monitoring programs are developed.

Technical reports and data in Central Coast Water Board files document widespread and increasing salt and nutrient pollution in groundwater basins throughout the Central Coast Region.

- R. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B and V.B of this Order/Permit are included to implement state law only. These provisions/requirements are not required or

authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

- S. 301(h) Tentative Decision.** USEPA has drafted a 301(h) Tentative Decision Document (TDD) evaluating the Discharger's proposed discharge and effluent limitations for TSS and BOD<sub>5</sub>. The 2010 TDD concludes that the Discharger's 301(h) application satisfies CWA section 301(h). Based on this information, it is the Regional Administrator's tentative decision to grant the Discharger's variance request for TSS and BOD<sub>5</sub>, in accordance with the terms, conditions, and limitations of the TDD. In accordance with this decision and the 1984 301(h) Memorandum of Understanding between the State and USEPA, the Regional Water Board and USEPA have jointly proposed issuance of a draft 301(h)-modified permit incorporating both federal NPDES requirements and State Waste Discharge Requirements.
- T. Permit Renewal Contingency.** The Discharger's permit renewal of the variance from federal secondary treatment standards, pursuant to CWA section 301(h) is contingent upon:
1. Determination by the California Coastal Commission that the proposed discharge is consistent with the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451 et seq.);
  2. Determination by the U.S. Fish and Wildlife Service and the NOAA National Marine Fisheries Service that the proposed discharge is consistent with the federal Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.);
  3. Determination by the NOAA National Marine Fisheries Service that the proposed discharge is consistent with the Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 U.S.C. 1801, et seq.);
  4. Determination by the Regional Water Board that the discharge will not result in additional treatment pollution control, or other requirement, on any other point or nonpoint sources (40 CFR 125.64);
  5. The Regional Water Board's certification/concurrence that the discharge will comply with water quality standards for the pollutants which the 301(h) variance is requested (40 CFR 125.61) (i.e., TSS and BOD<sub>5</sub>). The joint issuance of a NPDES permit which incorporates both the 301(h) variance and State waste discharge requirements will serve as the State's concurrence; and
  6. The USEPA Regional Administrator's final decision regarding the Discharger's CWA Section 301(h) variance request.
- U. Notification of Interested Parties.** The Regional Water Board and USEPA have notified the Discharger and interested agencies and persons of their intent to jointly issue State Waste Discharge Requirements and a federal NPDES permit for the

discharge and have provided an opportunity to submit written comments and recommendations by March 22, 2010.

- V. Consideration of Public Comment.** The USEPA considered all written comments pertaining to the discharge. 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 of this Order/Permit.
- W. Privilege to Discharge.** A permit and the privilege to discharge waste into waters of the State are conditional upon the discharge complying with provisions of division 7 of the CWC and of the CWA (as amended or as supplemented by implementing guidelines and regulations), and with any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisances.
- X. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General WDRs).** The General WDRs, Order No. 2006-0003-DWQ, adopted May 2, 2006, apply to publicly owned sanitary sewer systems (collection systems) that are one mile or greater in length. The General WDRs require collection system entities to develop a Sanitary Sewer Management Plan (SSMP). SSMPs are required to include goals; organization; legal authority; operations and maintenance program; design and performance provisions; an overflow emergency response plan; fats, oils, and greases control program; systems evaluations and capacity assurance program; monitoring, measures, and program modifications; and an SSMP Program audit. Additionally, the General WDRs require the collection system entities to report sanitary sewer overflows (SSOs). Collection system entities are required to report SSOs that are greater than 1,000 gallons. Furthermore, some entities must also report SSOs less than 1,000 gallons discharging to surface waters or storm drains or that threaten public health. Reporting provisions are set forth in the General WDRs. Reporting shall occur through the Statewide Online SSO database. Reporting times vary depending on discharge amount and destination. The Discharger enrolled separately under the General WDR.
- Y. 401 Certification.** Regional Water Board adoption of this Order/Permit constitutes certification and concurrence under 40 CFR 124.54, that the discharge, as described in the Discharger's 301(h) application, will comply with applicable state laws, including water quality standards, and will not result in additional treatment, pollution control, or other requirements on any other point or nonpoint source. Conversely, Regional Water Board denial of this Order/Permit constitutes denial of certification. According to Clean Water Act Section 401(a)(1), USEPA may not issue the NPDES permit until the Regional Water Board grants certification.
- Z. Mandatory Penalties.** Section 13385(h) and Section 13385(i) of the California Water Code require the Regional Water Board to impose mandatory penalties for certain effluent limit violations. Section 13385(h) et seq. applies to effluent discharged to the ocean from the Discharger.

**AA. Facility Upgrade.** The Discharger intends to upgrade the Facility to provide secondary treatment as set forth in a Settlement Agreement with the Regional Water Board. The Discharger will upgrade the plant to a full secondary treatment plant by the end of 2014. The proposed upgraded facility will utilize the existing biofilter, and will include construction of a new biofilter identical to the existing biofilter, new activated sludge aeration basin and two new secondary clarifiers. The facility will be designed to treat all wastewater to secondary effluent standards.

The Settlement Agreement provides for a ten year conversion schedule starting in 2005. The Discharger is in compliance with the conversion schedule and has met all deadlines. The overall project continues to meet the conversion schedule. Subject to the provisions of the Settlement Agreement regarding force majeure, the conversion schedule is as follows:

**Table 7 – Settlement Agreement Conversion Schedule**

<b>Task</b>	<b>Date of Completion <sup>1</sup></b>
<b>Preliminary Activities:</b>	
1. Submittal of Detailed Conversion Plan and Timeline to Owners of Capacity in District's Plan	01/01/05
2. Coordination of Conversion concepts with Owners of capacity in District's Plant (Education regarding participation in conversion)	06/30/05
3. Send Requests for Environmental & Consulting Engineering Contracts	12/31/05
4. Award of Environmental & Consulting Engineering Contracts	06/30/06
<b>Facilities Planning:</b>	
1. Complete Draft Facilities Plan	12/31/06
2. Complete Final Facilities Plan	06/30/08
<b>Environmental Review and Permitting:</b>	
1. Complete and Circulate Draft CEQA Document	06/30/08
2. Certify Final CEQA Document	06/30/10
3. Submit Applications for all Necessary Permits	01/31/09
4. Obtain all Necessary Permits	01/31/11
<b>Financing:</b>	
1. Complete Draft Plan for Project Design and Construction Financing	01/30/07
2. Complete Final Plan for Project Design & Construction Financing	03/31/08
3. Submit proof that all necessary construction financing has been secured, including compliance with Proposition 218	12/31/10
<b>Design and Construction:</b>	
1. Initiate Design	06/30/08
2. 30% Design	12/31/08

<b>Task</b>	<b>Date of Completion <sup>1</sup></b>
3. 60% Design	11/30/09
4. 90% Design	03/31/10
5. 100% Design	09/30/10
6. Issue Notice to Proceed with Construction	04/30/11
7. Construction Progress Reports	Quarterly (w/ SMRs)
8. Complete Construction and Commence Debugging and Startup	04/30/14
9. Achieve Full Compliance with Secondary Treatment Requirements	11/01/14

1. Any completion dates falling on a Saturday, Sunday or State holiday shall be extended until the next business day. The Discharge shall submit proof of completion or each task within 30 days after the due date for completion.

The requirements of the Settlement Agreement are enforceable by the Water Board as set forth in the Settlement Agreement. The Regional Water Board and USEPA have considered the Settlement Agreement in adopting this Order/Permit, but the upgrade requirements are not terms of the Permit. Subject to the provisions of the Settlement Agreement regarding Regional Water Board Discretion and New Evidence, the Settlement Agreement contemplates that the Regional Water Board will concur in the issuance of this modified discharge permit and issue an NPDES Permit in order to effect the Settlement Agreement and the Discharger's obligation to complete the upgrade of its treatment facility to secondary treatment by the end of the five-year permit term. Based on the administrative record, including population growth projections through 2015, known environmental and cumulative impacts of the Discharger's existing wastewater treatment facilities, and evidence submitted by the Discharger of the time needed for upgrading the plant, the conversion schedule is reasonable, necessary and appropriate. The Clean Water Act requires publicly owned treatment works to achieve at least secondary treatment prior to discharge to waters of the United States, unless the facility obtains a variance from USEPA pursuant to Clean Water Act section 301(h) (301(h) waiver). The facility will not complete the upgrade to at least secondary treatment until the end of the five-year term of this permit, and, therefore a 301(h) waiver continues to be necessary for the discharge subject to this permit. The next permit will contain secondary treatment requirements as final enforceable effluent limitations to ensure that facility achieves at least secondary treatment. The Clean Water Act establishes secondary treatment as the technology based standard for discharges to surface water. The Regional Water Board may require the discharger to comply with more stringent water quality based standards beyond secondary treatment for discharges to surface water if necessary to protect the beneficial uses of waters of the state and the United States.

If the Regional Water Board receives new information to support the need to impose more stringent water quality based requirements beyond secondary, it may consider imposing such requirements only after required public notice and comment and hearing.

### III. DISCHARGE PROHIBITIONS

- A. The discharge of treated wastewater at a location other than 34°, 24', 06" N Latitude, 119°, 49', 27" W Longitude is prohibited.
- B. Discharges of any waste in any manner other than as described by this Order/Permit are prohibited.
- C. Effluent average daily dry weather flow shall not exceed 7.64 MGD.
- D. The discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited.
- E. Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited.
- F. The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I. G.a. (Bypass), is prohibited.



**IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS****A. Effluent Limitations – Discharge Point 001**

1. The Discharger shall, as a 30-day average, remove at least 30% of the biochemical oxygen demanding materials (BOD<sub>5</sub>) from the influent stream before discharging wastewater to the ocean. The Discharger shall, as a 30-day average, remove at least 75% of the suspended solids from the influent stream before discharging wastewater to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L. In addition, effluent concentrations shall not exceed the following limitations:

**Table 8. Effluent Limitations for BOD and TSS**

Constituent	Units	Average Monthly	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	98	150
	lbs/day <sup>1</sup>	6,240	9,560
Total Suspended Solids	mg/L	63	100
	lbs/day <sup>1</sup>	4,010	6,370

**Table 9. Effluent Limitations for Major Wastewater Constituents**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
	lbs/day <sup>1</sup>	1,590	2,550	4,780
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	Within limits of 6.0 to 9.0 at all times		

**Table 10. Effluent Limitations for the Protection of Marine Aquatic Life<sup>2</sup>**

Parameter	Units	Effluent Limitations		
		6-Month Median	Maximum Daily	Instantaneous Maximum
Arsenic	µg/L	618	3,570	9,474
Cadmium	µg/L	123	492	1,230
Chromium (Hex) <sup>3</sup>	µg/L	246	987	2,460
Copper	µg/L	125	1,232	3,446

<sup>1</sup> Mass emission rates are based on the annual monthly average design flow of 7.64 MGD.

<sup>2</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

<sup>3</sup> The Discharger may at its option meet this limitation as a Total Chromium limitation.

Parameter	Units	Effluent Limitations		
		6-Month Median	Maximum Daily	Instantaneous Maximum
Lead	µg/L	246	987	2,460
Mercury	µg/L	4.9	20	49
Nickel	µg/L	615	2,460	6,150
Selenium	µg/L	1,845	7,348	18,450
Silver	µg/L	67	325	841
Zinc	µg/L	1,484	8,864	23,624
Cyanide	µg/L	123	492	1,230
Total Chlorine Residual	µg/L	246	984	7,380
Ammonia (as N)	mg/L	73.8	295.2	738
Acute toxicity	TUa	N/A	4.0	N/A
Chronic Toxicity	TUc	N/A	123	N/A
Phenolic Compounds (non-chlorinated)	mg/L	3.69	14.76	36.9
Chlorinated Phenolics	µg/L	123	492	1,230
Endosulfan <sup>4</sup>	µg/L	1.107	2.214	3.321
Endrin	µg/L	0.246	0.492	0.738
HCH <sup>5</sup>	µg/L	0.492	0.984	1.476
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			

**Table 11. Effluent Limitations for Protection of Human Health – Non-Carcinogens<sup>6</sup>**

Parameter	Units	Effluent Limitations
		Average Monthly
Acrolein	mg/L	27.06
Antimony	mg/L	147.6
bis(2-chloroethoxy) methane	µg/L	541.2
bis(2-chloroisopropyl) ether	mg/L	147.6
Chlorobenzene	mg/L	70.11

<sup>4</sup> ENDOSULFAN shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

<sup>5</sup> HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

<sup>6</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

Parameter	Units	Effluent Limitations
		Average Monthly
chromium (III)	mg/L	23,370
di-n-butyl phthalate	mg/L	430.5
Dichlorobenzenes	mg/L	627.3
diethyl phthalate	mg/L	4,059
dimethyl phthalate	g/L	100.86
4,6-dinitro-2-methylphenol	mg/L	27.06
2,4-dinitrophenol	mg/L	0.492
Ethylbenzene	mg/L	504.3
Fluoranthene	mg/L	1.845
Hexachlorocyclopentadiene	mg/L	7.134
Nitrobenzene	mg/L	0.6027
Thallium	mg/L	0.246
Toluene	g/L	10.45
Tributyltin	µg/L	0.172
1,1,1-trichloroethane	g/L	66.42

**Table 12. Effluent Limitations for Protection of Human Health – Carcinogens<sup>7</sup>**

Parameter	Units	Effluent Limitations
		Average Monthly
Acrylonitrile	µg/L	12.3
Aldrin	µg/L	0.0027
Benzene	µg/L	725.7
Benzidine	µg/L	0.0085
beryllium	µg/L	4.059
bis(2-chloroethyl) ether	µg/L	5.535
bis(2-ethylhexyl) phthalate	µg/L	430.5
carbon tetrachloride	µg/L	110.7
Chlordane <sup>8</sup>	µg/L	0.0028
chlorodibromomethane	mg/L	1.057
chloroform	mg/L	15.99
DDT <sup>9</sup>	µg/L	0.02091
1,4-dichlorobenzene	mg/L	2.214
3,3'-dichlorobenzidine	µg/L	0.9963
1,2-dichloroethane	mg/L	3.444
1,1-dichloroethylene	µg/L	110.7
dichlorobromomethane	µg/L	762.6

<sup>7</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

<sup>8</sup> CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

<sup>9</sup> DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

Parameter	Units	Effluent Limitations
		Average Monthly
dichloromethane	mg/L	55.35
1,3-dichloropropene	mg/L	1.094
dieldrin	µg/L	0.00492
2,4-dinitrotoluene	µg/L	319.8
1,2-diphenylhydrazine	µg/L	19.68
halomethanes	mg/L	15.99
Heptachlor <sup>10</sup>	µg/L	0.00615
Heptachlor epoxide	µg/L	0.00246
hexachlorobenzene	µg/L	0.02583
hexachlorobutadiene	mg/L	1.722
hexachloroethane	µg/L	307.5
Isophorone	mg/L	89.79
N-nitrosodimethylamine	µg/L	897.9
N-nitrosodi-N-propylamine	µg/L	46.74
N-nitrosodiphenylamine	µg/L	307.5
PAHs <sup>11</sup>	µg/L	1.0824
PCBs <sup>12</sup>	µg/L	0.0023
TCDD equivalents <sup>13</sup>	pg/L	0.48
1,1,2,2-tetrachloroethane	µg/L	282.9
tetrachloroethylene	µg/L	246
toxaphene	µg/L	0.026
trichloroethylene	mg/L	3.321
1,1,2-trichloroethane	mg/L	1.156
2,4,6-trichlorophenol	µg/L	36.67
vinyl chloride	mg/L	4.428

<sup>10</sup> HEPTACHLOR formerly meant the sum of heptachlor and heptachlor epoxide. Each specie is now listed separately.

<sup>11</sup> PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

<sup>12</sup> PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

<sup>13</sup> TCDD EQUIVALENTS shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

2. No more than 10 percent of the final effluent samples in any monthly (30-day) period shall exceed a total coliform organism density of 2,400 per 100 mL, and no sample shall exceed 16,000 per 100 mL. The density of total coliform organisms shall also be monitored during chlorine contact tank maintenance procedures. The Discharger shall implement the *Notification and Monitoring Procedures in the Event of Disinfection Failure*, as specified in Monitoring and Reporting Section VIII.D.
3. If the density of total coliform organisms exceeds any of the limits specified in Item IV.A.2., above, for three consecutive months, the Discharger shall submit a technical engineering report, in addition to monthly monitoring reports, for the approval of the Executive Officer. The report shall include, but not be limited to, measures to identify sources of the exceedances, if not already identified, and measures to correct the deficiencies. The Discharger shall submit the report within 30 days of the end of the third month of violating the limitation. In addition, the Discharger shall monitor the surf-zone stations daily for one week following the last day on which violation of the effluent limitation occurred.
4. A total chlorine residual of 5 mg/L or greater (calculated as a 7-day average) shall be maintained at the end of the chlorine contact tank. Daily grab samples shall represent maximum chlorination effectiveness under total suspended solids peak loading conditions. The chlorine contact tank shall be operated and maintained to provide maximum chlorination effectiveness at all times.
5. The Discharger shall report violations of the "Instantaneous Maximum" or "Maximum Allowable Daily Mass Emission Rate" to the Regional Board within 24 hours of discovery.
6. Discharged effluent must be essentially free of:
  - a. Material that is floatable or will become floatable upon discharge.
  - b. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
  - c. Substances that will accumulate to toxic levels in marine waters, sediments, or biota.
  - d. Substances that significantly decrease the natural light to benthic communities.
  - e. Materials that result in aesthetically undesirable discoloration of the ocean surface.

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

The Discharger shall comply with Waste Discharge Requirements Order No. 91-03 for reclaimed water production. The Discharger shall comply with applicable state and local requirements regarding the production and use of reclaimed wastewater, including requirements of California Water Code (CWC) sections 13500 – 13577 (Water Reclamation) and California Department of Public Health (CDPH) regulations at Title 22, sections 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria). The Goleta Water District, as the primary user of reclaimed water, is responsible for the distribution and use of reclaimed water to the general public under Order No 91-04.

**V. RECEIVING WATER LIMITATIONS****A. Surface Water Limitations**

The following receiving water limitations are based on water quality objectives (Water-Contact Standards) contained in the Ocean Plan and are a required part of this Order/Permit. Compliance shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed as specified in the MRP. The Regional Water Board may require the Discharger to investigate the cause of an exceedance in the receiving water before determining whether the Discharger caused a violation of the receiving water limitation.

**1. Bacterial Characteristics**

- a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone designated for water contact recreation use by the Regional Water Board (i.e., waters designated as REC-1), but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.
  - i. 30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.
    - (a) Total coliform density shall not exceed 1,000 per 100 mL;
    - (b) Fecal coliform density shall not exceed 200 per 100 mL; and
    - (c) Enterococcus density shall not exceed 35 per 100 mL.
  - ii. Single Sample maximum;

- (a) Total coliform density shall not exceed 10,000 per 100 mL;
- (b) Fecal coliform density shall not exceed 400 per 100 mL;
- (c) Enterococcus density shall not exceed 104 per 100 mL; and
- (d) Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1.

**b. Shellfish Harvesting Standards**

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacterial objectives shall be maintained throughout the water column:

- i. The median total coliform density shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

**c. Physical Characteristics**

- i. Wastewater constituents within the discharge shall not cause floating particles or oil and grease to be visible on the ocean surface.
- ii. Wastewater constituents within the discharge shall not cause aesthetically undesirable discoloration of the ocean surface.
- iii. Wastewater constituents within the discharge shall not cause significant reduction in the transmittance of natural light at any point outside the initial dilution zone.
- iv. Wastewater constituents within the discharge shall not cause change in the rate of deposition and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.
- v. Wastewater constituents within the discharge shall not cause temperature of the receiving water to adversely affect beneficial uses.

**d. Chemical Characteristics**

- i. Wastewater constituents within the discharge shall not cause the dissolved oxygen concentration outside the zone of initial dilution to fall below 5.0 mg/L or to be depressed more than 10 percent from that which occurs naturally.
- ii. Wastewater constituents within the discharge shall not cause the pH outside the zone of initial dilution to be depressed below 7.0, raised above 8.5, or changed more than 0.2 units from that which occurs naturally.

- iii. Wastewater constituents within the discharge shall not cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.
- iv. Wastewater constituents within the discharge shall not cause the concentration in marine sediments of substances listed in Table B of the 2005 California Ocean Plan to be increased above levels which would degrade indigenous biota.
- v. Wastewater constituents within the discharge shall not cause the concentration of organic materials in marine sediments to increase above levels which would degrade marine life.
- vi. Wastewater constituents within the discharge shall not cause objectionable aquatic growths or degradation of indigenous biota resulting from the discharge of nutrients.

**e. Biological Characteristics**

- i. Wastewater constituents within the discharge shall not cause degradation of marine communities, including vertebrate, invertebrate, and plant species.
- ii. Wastewater constituents within the discharge shall not cause alteration of the natural tastes, odor, and color of fish, shellfish, or other marine resources used for human consumption.
- iii. Wastewater constituents within the discharge shall not cause the concentrations of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health.

**f. Radioactivity**

- i. Wastewater constituents within the discharge shall not cause degradation of marine life due to radioactive waste.



**B. Groundwater Limitations – Not Applicable****VI. PROVISIONS****A. Standard Provisions**

1. Standard Provisions. The Discharger shall comply with all Federal and Regional Water Board Standard Provisions included in Attachment D of this Order/Permit.

**B. Monitoring and Reporting Program Requirements**

1. The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order/Permit.
2. Reports required to be submitted to the Regional Water Board and USEPA shall be sent to:

Executive Officer  
California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

U.S. EPA, Region 9  
ATTN: WTR-7, NPDES/DMR  
75 Hawthorne Street  
San Francisco, 94105

Notifications required to be provided to this Regional Water Board shall be made to:

Telephone – (805) 549-3147  
Facsimile – (805) 543-0397

Notifications required to be provided to USEPA shall be made to:

Telephone – (415) 972-3577  
Facsimile – (415) 947-3545

3. After notification by the State or Regional Water Board, or USEPA, the Discharger may be required to electronically submit self-monitoring reports. Until such time as electronic submissions of self-monitoring reports is required, the Discharger shall submit discharge monitoring reports (DMRs) in accordance with the requirements described in this Order.

DMRs must be signed and certified as required by the Standard Provisions (Attachment D). The Discharger shall submit the original DMR and one copy to:

State Water Resources Control Board  
Division of Water Quality

c/o DMR Processing Center  
PO Box 100  
Sacramento, CA 95812-1000

The Discharger shall submit one copy of the DMR to:

U.S. EPA, Region 9  
ATTN: WTR-7, NPDES/DMR  
75 Hawthorne Street  
San Francisco, CA 94105

All discharge monitoring results should be reported on the official USEPA pre-printed DMR forms (USEPA Form 3320-1). Forms that are self-generated must be approved by USEPA.

## **C. Special Provisions**

### **1. Reopener Provisions**

This Order/Permit may be modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR 122.44, 122.62 through 122.64, 125.62, and 125.64. Cause for taking such action includes, but is not limited to: failure to comply with any condition of this Order and Permit, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption and Permit issuance. The filing of a request by the Permittee for an Order and Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order and Permit.

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

The Discharger shall notify the Regional Water Board and USEPA in writing within 14 days of exceedance of the acute or chronic toxicity effluent limitations. This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

#### **a. Toxicity Reduction Requirements**

If the discharge consistently exceeds an effluent limitation for toxicity specified by section IV.A.1 of this Order/Permit, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan.

A TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data

relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases: characterization; identification; and confirmation using aquatic organism toxicity tests. The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow if a toxicity effluent limitation in this Order/Permit is exceeded. The Workplan shall be prepared in accordance with current technical guidance and reference material, including EPA/600/2-88-062, and shall describe, at a minimum:

- i. Actions proposed to investigate/identify the causes/sources of toxicity;
- ii. Actions proposed to mitigate the discharge's adverse effects, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity; and
- iii. A schedule to implement these actions.

When monitoring detects effluent toxicity greater than a limitation in this Order/Permit, the Discharger shall resample immediately, if the discharge is continuing, and retest for whole effluent toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer (EO) as soon as possible after receiving monitoring results. The EO will determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. The Discharger shall conduct a TRE considering guidance provided by the USEPA's Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3 (EPA document Nos. EPA 600/3-88/034, 600/3-88/035, and 600/3-88/036, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

**Table 13. Toxicity Reduction Evaluation Schedule**

Action Step	When Required
Take all reasonable measures necessary to immediately reduce toxicity, where the source is known.	Within 24 hours of identification of noncompliance.
Initiate the TRE in accordance to the Workplan.	Within 7 days of notification by the EO.
Conduct the TRE following the procedures in the Workplan.	Within the period specified in the Workplan (not to exceed one year without an approved Workplan)
Submit the results of the TRE, including summary of findings, required corrective action, and all results and data.	Within 60 days of completion of the TRE.
Implement corrective actions to meet Permit limits and conditions.	To be determined by the EO.

**b. Initial Investigation TRE Workplan for Whole Effluent Toxicity**

Within 90 days of the permit effective date, the Discharger shall prepare and submit an updated copy of their Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan (1-2 pages) to the Regional Water Board and USEPA for review. This plan shall include steps the Discharger intends to implement if toxicity is measured above a toxicity effluent limit and should include, at minimum:

- i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
- ii. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.
- iii. If a Toxicity Identification Evaluation (TIE) is necessary, an indication if who would conduct the TIEs (i.e., an in-house expert or outside contractor).

This workplan is subject to approval and modification by the Regional Water Board and USEPA.

**c. Accelerated Toxicity Testing and TRE/TIE Process for Whole Effluent Toxicity**

- i. If a toxicity effluent limit or performance goal is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding the toxicity effluent limit or performance goal. If the additional toxicity test does not exceed the toxicity effluent limit or performance goal, then the Discharger may return to their regular testing frequency.
- ii. If a toxicity effluent limit or performance goal is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12 week period. This testing shall begin within 14 days of receipt of test results exceeding the toxicity effluent limit or performance goal. If none of the additional toxicity tests exceed the toxicity effluent limit or performance goal, then the Discharger may return to their regular testing frequency.
- iii. If one of the additional toxicity tests (in paragraphs c.i or c.ii of this Section) exceeds the toxicity effluent limit or performance goal, then the Discharger shall notify the Executive Officer and Director. If the Executive Officer and Director determine that the discharge consistently exceeds the toxicity effluent limit or performance goal, then the Discharger shall initiate a TRE using as guidance the USEPA manuals: Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/ 833/B-99/002, 1999) or Generalized Methodology for Conducting Industrial Toxicity

Reduction Evaluations (EPA/600/2-88/070, 1989). In conjunction, the Discharger shall develop and implement a Detailed TRE Workplan which shall include: further actions undertaken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. This Detailed TRE Workplan and schedule are subject to approval and modification by the Regional Water Board and USEPA.

- iv. As part of a TRE, the Discharger may initiate a Toxicity Identification Evaluation (TIE)—using the same species and test method, and USEPA TIE guidance manuals—to identify the causes of toxicity. The USEPA TIE guidance manuals are: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (EPA/600/6-91/005F, 1992; only chronic toxicity); Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003, 1991; only acute toxicity); Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080, 1993); Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081, 1993); and Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document (EPA/600/R-96-054, 1996).

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

#### **a. Pollutant Minimization Goal**

The goal of the Pollutant Minimization Program is to reduce potential sources of Ocean Plan Table B toxic pollutants through pollutant minimization (control) strategies, including pollution prevention measures, to maintain effluent concentrations at or below the effluent limitation.

#### **b. Determining the Need for a Pollutant Minimization Program**

- i. The Discharger shall develop and implement a Pollutant Minimization Program if:
  - 1) A calculated effluent limitation is less than the reported Minimum Level,
  - 2) The concentration of the pollutant is reported as DNQ, and
  - 3) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity; results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the

permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

- ii. Alternatively, the Discharger shall develop and implement a Pollutant Minimization Program if:
  - 1) A calculated effluent limitation is less than the Method Detection Limit (MDL),
  - 2) The concentration of the pollutant is reported as ND; and
  - 3) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity; results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

**c. Elements of a Pollutant Minimization Program**

A Pollutant Minimization Program shall include actions and submittals acceptable to the Regional Water Board including, but not limited to, the following.

- i. An annual review and semiannual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable pollutant in influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant in the effluent at or below the calculated effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy;
- v. An annual status report that shall be sent to the Executive Officer that includes:
  - 1) All Pollutant Minimization Program monitoring results for the previous year;
  - 2) A list of potential sources of the reportable pollutant;
  - 3) A summary of all actions taken in accordance with the control strategy; and

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

#### **4. Pretreatment Specifications/Pollution Prevention Program**

- a. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR Part 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the issuance date of this permit or the effective date of the Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines and other remedies by the U.S. Environmental Protection Agency (EPA) or other appropriate parties, as provided in the Act. EPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the Act.
- b. The Discharger shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Discharger shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
- c. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:
  - i. Implement the necessary legal authorities as provided in 40 CFR Part 403.8(f)(1);
  - ii. Enforce the pretreatment requirements under 40 CFR Part 403.5 and 403.6;
  - iii. Implement the programmatic functions as provided in 40 CFR Part 403.8(f)(2); and
  - iv. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR Part 403.8(f)(3).
- d. **Nonindustrial Source Control Program**

In accordance with CWA Section 301(h)(7) and 40 CFR 125.66(d), the Discharger shall develop and implement its nonindustrial source control program and public education program. The purpose of these programs is to eliminate the entrance of nonindustrial toxic pollutants and pesticides into the POTW. These programs shall be periodically reviewed and addressed in the annual report.

## 5. Biosolids Requirements

(Note: "Biosolids" refers to non-hazardous sewage sludge, as defined at 40 CFR 503.9. Sewage sludge that is hazardous, as defined at 40 CFR 261, must be disposed of in accordance with the RCRA.)

### a. General Requirements

- i. All biosolids generated by the Discharger shall be used or disposed of in compliance with applicable portions of: 40 CFR 503—for biosolids that are land applied, placed in a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR 258—for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR 257—for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

40 CFR 503, Subpart B (land application), sets forth requirements for biosolids that are applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR 503, Subpart C (surface disposal), sets forth requirements for biosolids that are placed on land for the purpose of disposal.

The Discharger is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under these rules.

- ii. Duty to Mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.
- iii. No biosolids shall be allowed to enter wetlands or other waters of the United States.
- iv. Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.
- v. Biosolids treatment, storage, use, or disposal shall not create a nuisance such as objectionable odors or flies.
- vi. The Discharger shall assure that haulers transporting biosolids offsite for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained. Trucks hauling biosolids that are not Class A, as defined at 40 CFR 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck or wheels. Trucks hauling biosolids that are not Class A shall be tarped. All haulers must have spill clean-up procedures. Trucks hauling biosolids that are not Class A shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by



USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.

- vii. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all requirements for surface disposal under 40 CFR 503, Subpart C, or must submit a written notification to USEPA and the State with the information specified under 40 CFR 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether on the facility site or off-site, adequate procedures must be taken to restrict access by the public and domestic animals.
- viii. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and the highest tidal stage which may occur.
- ix. There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that large pieces of metal, plastic, glass, and other inert objects are removed.

**b. Inspection and Entry**

The USEPA, State, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger directly, or through contractual arrangements with their biosolids management contractors, to:

- i. Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.
- ii. Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this permit or 40 CFR 503.
- iii. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

**c. Monitoring**

- i. Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR 503.16: arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

Monitoring shall be conducted using the methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), or as otherwise required under 40 CFR 503.8(b). All results must be reported on a 100% dry weight basis and records of all analyses must state on each page of the analytical results whether the reported results are expressed on an "as-is" or a "100% dry weight" basis.

- ii. The Discharger shall sample biosolids twice per year for the pollutants listed under CWA Section 307(a), using best practicable detection limits.

d. Pathogen and Vector Control

- i. Prior to land application, the permittee shall demonstrate that biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 CFR 503.32.
- ii. Prior to disposal in a surface disposal site, the Discharger shall demonstrate that biosolids meet Class B pathogen reduction levels, or ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens" or one of the "Processes to Significantly Reduce Pathogens", the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform—24 hours when cooled to 4 degrees C; Salmonella spp. bacteria—24 hours when cooled to 4 degrees C; enteric viruses—2 weeks when frozen; helminth ova—one month when cooled to 4 degrees C.
- iii. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve the Vector Attraction Reduction requirements under 40 CFR 503.33(b).

e. Surface Disposal

If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

**f. Landfill Disposal**

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (Method 9095) at the frequency specified in Table 1 of 40 CFR 503.16, or more often if necessary to demonstrate that there are no free liquids.

**g. Notifications**

The Discharger, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements.

**i. Notification of Non-compliance**

The Discharger shall notify USEPA and the State (for both Discharger and use or disposal site) of any non-compliance within 24 hours, if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify USEPA and the State of the non-compliance in writing within 5 working days of becoming aware of the noncompliance. The Discharger shall require their biosolids management contractors to notify USEPA and the State of any noncompliance within these same time-frames.

**ii. Interstate Notification**

If biosolids are shipped to another State or Tribal Land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Tribal Land, and the USEPA Regional Office.

**iii. Land Application Notification**

Prior to using any biosolids from this facility (other than composted biosolids) at a new or previously unreported site, the permittee shall notify USEPA and the State. This notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR 503.13, then the Discharger (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading at that site to date, as required by 40 CFR 503.12.

The Discharger shall notify the applier of all subject requirements under 40 CFR 503, including the requirement for the applier to certify that management practices, site restrictions, and applicable vector attraction reduction requirements have been met. The Discharger shall require the applier to certify at the end of 38 months, following application of Class B biosolids, that harvesting restrictions in effect for up to 38 months have been met.

#### iv. Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA and the State. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

#### h. Reporting

The Discharger shall submit an annual biosolids report to the USEPA Region 9 Biosolids Coordinator and the State by February 19 of each year for the period covering the previous calendar year. The report shall include:

- i. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
- ii. Results of all pollutant monitoring required under Monitoring, above. Results must be reported on a 100% dry weight basis.
- iii. Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR 503.17 and 503.27, and certifications.
- iv. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, or other use or disposal method not covered above, and volumes delivered to each.
- v. The following information must be submitted by the Discharger, unless the Discharger requires its biosolids management contractors to report this information directly to the EPA Region 9 Biosolids Coordinator. For land application sites:
  - Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner.
  - Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen.
  - Crops planted, dates of planting and harvesting.

- For biosolids exceeding 40 CFR 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date.
- Certifications of management practices at 40 CFR 503.14.
- Certifications of site restrictions at 40 CFR 503(b)(5).
- For surface disposal sites:  
Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed.
- Results of any required groundwater monitoring.
- Certifications of management practices at 40 CFR 503.24.
- For closed sites, the date of site closure and certifications of management practices for three years following site closure.

vi. All reports shall be submitted to:

Regional Biosolids Coordinator  
U.S. Environmental Protection Agency  
CWA Compliance Office (WTR-7)  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Executive Officer  
Central Coast Regional Water Quality Control Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

## 6. Salt and Nutrient Management Plan

- a. The Discharger shall submit documentation and summary of participation in a regional salt/nutrient management plan implemented under the provisions of State Water Board Resolution No. 2009-0011 (Recycled Water Policy) and as discussed in Finding II.Q.

## VII. COMPLIANCE DETERMINATION

### A. General

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order/Permit. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

### B. Multiple Sample Data.

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

**ATTACHMENT A – DEFINITIONS****Acute Toxicity**

## a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{\frac{96\text{-hr LC}}{50\%}}$$

## b. Lethal Concentration 50% (LC 50)

LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log(100 - S)}{1.7}$$

where:

S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

**Areas of Special Biological Significance (ASBS)**

Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

**Average Monthly Effluent Limitation (AMEL)**

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**Average Weekly Effluent Limitation (AWEL)**

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

**Chlordane**

Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

**Chronic Toxicity**

This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TU<sub>c</sub>)

Expressed as Toxic Units Chronic (TU<sub>c</sub>)

$$TU_c = \frac{100}{NOEL}$$

## b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix III.

**Daily Discharge**

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

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

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

**DDT**

Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

**Degrade**

Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.



**Detected, but Not Quantified (DNQ)**

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL.

**Dichlorobenzenes**

Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

**Downstream Ocean Waters**

Waters downstream with respect to ocean currents.

**Dredged Material**

Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil".

**Enclosed Bays**

Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

**Endosulfan**

The sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estuaries and Coastal Lagoons** are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**Halomethanes** shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH** shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**Initial Dilution**

The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed

when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.

#### **Instantaneous Maximum Effluent Limitation**

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

#### **Instantaneous Minimum Effluent Limitation**

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

#### **Kelp Beds**

For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

#### **Mariculture**

The culture of plants and animals in marine waters independent of any pollution source.

#### **Material**

(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

#### **Maximum Daily Effluent Limitation (MDEL)**

The highest allowable daily discharge of a pollutant.

#### **Method Detection Limit (MDL)**

The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B.

#### **Minimum Level (ML)**

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

**Natural Light**

Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

**Not Detected (ND)**

Those sample results less than the laboratory's MDL.

**Ocean Waters**

The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

**PAHs (polynuclear aromatic hydrocarbons)**

The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls)**

The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**Pollutant Minimization Program (PMP)**

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table B pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

**Reported Minimum Level**

The ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order/Permit. The MLs included in this Order/Permit correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-

effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

**Satellite Collection System**

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

**Shellfish**

Organisms identified by the California Department of Public Health as shellfish for public health purposes (i.e., mussels, clams and oysters).

**Significant Difference**

Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-Month Median Effluent Limitation**

The highest allowable moving median of all daily discharges for any 180-day period.

**State Water Quality Protection Areas (SWQPAs)**

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution No.s 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

**TCDD Equivalents**

The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
	1.0
2,3,7,8-tetra CDD	
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

**Toxicity Reduction Evaluation (TRE)**

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

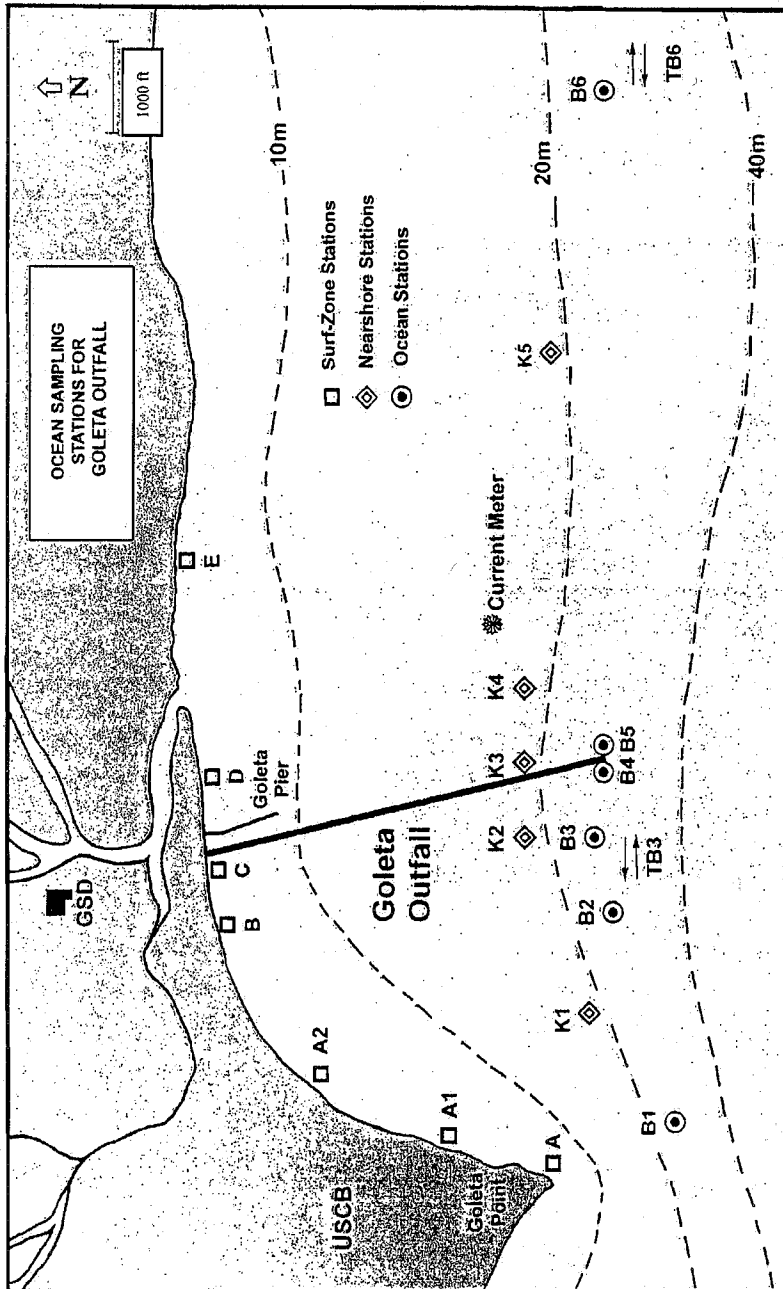
**Waste**

As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

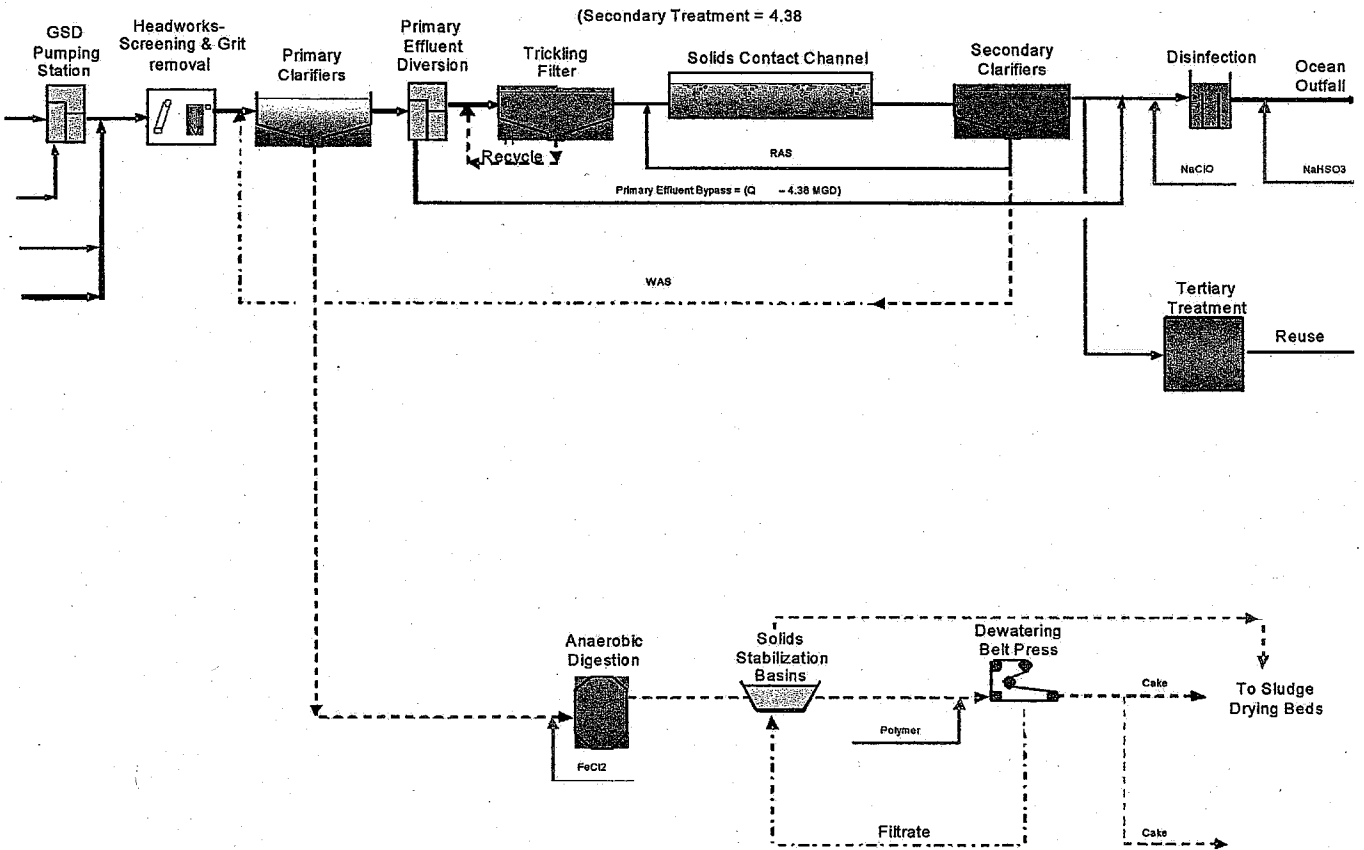
**Water Reclamation**

The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

### ATTACHMENT B – MAP WITH OUTFALL AND MONITORING LOCATIONS



ATTACHMENT C - FLOW SCHEMATIC



Treatment Process Flow Diagram

**ATTACHMENT D – STANDARD PROVISIONS****I. FEDERAL STANDARD PROVISIONS – PERMIT COMPLIANCE****A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order/Permit. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order/Permit has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

**B. Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order/Permit. (40 C.F.R. § 122.41(c).)

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

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

**E. Property Rights.**

1. This Order/Permit does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order/Permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)



**F. Inspection and Entry.** The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order/Permit (40 C.F.R. § 122.41(i)(1));
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order/Permit (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order/Permit (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order/Permit compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location (40 C.F.R. § 122.41(i)(4).)

## **G. Bypass**

### **1. Definitions**

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
  3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board and USEPA may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
    - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
  - c. The Discharger submitted notice to the Regional Water Board and USEPA as required under Standard Provisions– Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Regional Water Board and USEPA may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board and USEPA determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

#### 5. Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

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

- 1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
- 2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

- b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

## II. FEDERAL STANDARD PROVISIONS – PERMIT ACTION

- A. General.** This Order/Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order/Permit condition. (40 C.F.R. § 122.41(f).)
- B. Duty to Reapply.** If the Discharger wishes to continue an activity regulated by this Order/Permit after the expiration date of this Order/Permit, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)
- C. Transfers.** This Order/Permit is not transferable to any person except after notice to the Regional Water Board and USEPA. The Regional Water Board and USEPA may require modification or revocation and reissuance of the Order/Permit to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

## III. FEDERAL STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.** (40 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order/Permit.** (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

## IV. FEDERAL STANDARD PROVISIONS – RECORDS

- A. Records Retention.** Except for records of monitoring information required by this Order/Permit related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this

Order/Permit, and records of all data used to complete the application for this Order/Permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer or USEPA Director at any time. (40 C.F.R. § 122.41(j)(2).)

**B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

**V. FEDERAL STANDARD PROVISIONS – REPORTING**

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

**B. Signatory and Certification Requirements**

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

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).)
3. All reports required by this Order/Permit and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
  - c. The written authorization is submitted to the Regional Water Board, State Water Board, and USEPA. (40 C.F.R. § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board, State Water Board, and USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

### C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order/Permit. (40 C.F.R. § 122.22(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board, State Water Board, or USEPA for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order/Permit using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order/Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board or USEPA. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order/Permit. (40 C.F.R. § 122.41(l)(4)(iii).)

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

#### **E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order/Permit. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order/Permit. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
  - c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (40 CFR §122.44(g).)

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

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

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order/Permit. (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

**G. Anticipated Noncompliance.** The Discharger shall give advance notice to the Regional Water Board, State Water Board, or USEPA of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

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

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

## VI. FEDERAL STANDARD PROVISIONS – ENFORCEMENT

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

**VII. ADDITIONAL FEDERAL PROVISIONS – NOTIFICATION LEVELS**

**A. Publicly-Owned Treatment Works (POTWs).** All POTWs shall provide adequate notice to the Regional Water Board and USEPA of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order/Permit. (40 C.F.R. § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

**ATTACHMENT D-1 – CENTRAL COAST REGION'S STANDARD PROVISIONS (JANUARY 1985)****I. CENTRAL COAST GENERAL PERMIT CONDITIONS****A. Central Coast Standard Provisions – Prohibitions**

1. Introduction of "incompatible wastes" to the treatment system is prohibited.
2. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.
3. Discharge of "toxic pollutants" in violation of effluent standards and prohibitions established under Section 307(a) of the Clean Water Act is prohibited.
4. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.
5. Introduction of pollutants into the collection, treatment, or disposal system by an "indirect discharger" that:
  - a. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,
  - b. Flow through the system to the receiving water untreated; and,
  - c. Cause or "significantly contribute" to a violation of any requirement of this Order/Permit, is prohibited.



6. Introduction of "pollutant free" wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this order is prohibited.

**B. Central Coast Standard Provisions – Provisions**

1. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by Section 13050 of the California Water Code.
2. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.
3. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.
4. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.
5. Publicly owned wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23 of the California Administrative Code.
6. After notice and opportunity for a hearing, this order may be terminated for cause, including, but not limited to:
  - a. violation of any term or condition contained in this order;
  - b. obtaining this order by misrepresentation, or by failure to disclose fully all relevant facts;
  - c. a change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,
  - d. a substantial change in character, location, or volume of the discharge.
7. Provisions of this permit are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.
8. After notice and opportunity for hearing, this order may be modified or revoked and reissued for cause, including:
  - a. Promulgation of a new or revised effluent standard or limitation;
  - b. A material change in character, location, or volume of the discharge;
  - c. Access to new information that affects the terms of the permit, including applicable schedules;

- d. Correction of technical mistakes or mistaken interpretations of law; and,
  - e. Other causes set forth under Sub-part D of 40 CFR Part 122.
9. Safeguards shall be provided to assure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operating procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the affect of accidental discharges shall:
- a. identify possible situations that could cause "upset", "overflow" or "bypass", or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.)
  - b. evaluate the effectiveness of present facilities and procedures and describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.
10. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.
11. Production and use of reclaimed water is subject to the approval of the Regional Water Board. Production and use of reclaimed water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Administrative Code and Chapter 7, Division 7, of the California Water Code. An engineering report pursuant to section 60323, Title 22, of the California Administrative Code is required and a waiver or water reclamation requirements from the Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

#### C. Central Coast Standard Provisions – General Monitoring Requirements

- 1. If results of monitoring a pollutant appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be

increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions I.G.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions I.G.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the California Department of Public Health for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Resources Control Board and the State Department of Fish and Game. If the laboratory used or proposed for use by the discharger is not certified by the California Department of Public Health or, where appropriate, the Department of Fish and Game due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:
  - a. Data results remain consistent with results of samples analyzed by the Regional Water Board;
  - b. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Regional Water Board; and,
  - c. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.
3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.
4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

#### D. Central Coast Standard Provisions– General Reporting Requirements

1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:
  - a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).

- b. A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).
        - c. A description of the sampling procedures and preservation sequence used in the survey.
        - d. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to (Central Coast Standard Provisions – Definitions I.C.1 above, and Federal Standard Provision – Monitoring III.B. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.
        - e. A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.
2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.
3. The “Discharger” shall file a report of waste discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.
4. Within 120 days after the discharger discovers, or is notified by the Regional Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Regional Water Board. The report shall include:
  - a. the best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,
  - b. a schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

In addition to complying with Federal Standard Provision – Reporting V.B., the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

5. All "Discharger" shall submit reports to the:

California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

In addition, "Discharger" with designated major discharges shall submit a copy of each document to:

Regional Administrator  
US Environmental Protection Agency, Region 9  
Attention: CWA Standards and Permits Office (WTR-5)  
75 Hawthorne Street  
San Francisco, California 94105

6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Regional Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing "Discharger" and proposed "Discharger" containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Regional Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action IB.3.
7. Except for data determined to be confidential under Section 308 of the Clean Water Act (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Regional Water Board or Regional Administrator of EPA. Please also see Federal Standard Provision – Records IV.C.
8. By April 1st of each year, the discharger shall submit an annual report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The discharger shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge into full compliance. The report shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall inform the Regional Water Board of the date of the Facility's Operation and Maintenance Manual (including contingency plans as described Central Coast Standard Provision – Provision B.9), of the date the manual was last reviewed, and whether the manual is complete and valid for the current facility. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with effluent limits and provide a summary of performance relative to Section C above, General Monitoring Requirements.

If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program, the report shall include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination.

If applicable, the report shall also evaluate the effectiveness of the local source control or pretreatment program using the State Water Resources Control Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Programs.

#### E. Central Coast Standard Provisions – General Pretreatment Provisions

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:
  - a. By the date specified therein;
  - b. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,
  - c. If a new indirect discharger, upon commencement of discharge.

#### F. Central Coast Standard Provisions – Enforcement

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed \$5,000 per day.
2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

#### G. Central Coast Standard Provisions – Definitions (Not otherwise included in Attachment A to this Order)

1. A "composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.
2. "Daily Maximum" limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples" except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a "grab sample".

3. "Discharger", as used herein, means, as appropriate: (1) the Discharger, (2) the local sewerage entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger", it refers to the discharger.)
4. "Duly Authorized Representative" is one where:
  - a. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision V.B;
  - b. the authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,
  - c. the written authorization was submitted to the Regional Water Board.
5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples" shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in Central Coast Standard Provision – Provision G.2 and instantaneous maximum limits.
6. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.
7. "Incompatible wastes" are:
  - a. Wastes which create a fire or explosion hazard in the treatment works;
  - b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;
  - c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;
  - d. Any waste, including oxygen demanding pollutants (BOD, etc), released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,
  - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40°C (104°F) unless the treatment works is designed to accommodate such heat.
8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

9. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:

$$\text{Log Mean} = (C1 \times C2 \times \dots \times Cn)^{1/n}$$

in which "n" is the number of days samples were analyzed during the period and any "C" is the concentration of bacteria (MPN/100 ml) found on each day of sampling. "n" should be five or more.

10. "Mass emission rate" is a daily rate defined by the following equations:

$$\text{mass emission rate (lbs/day)} = 8.34 \times Q \times C; \text{ and,}$$

$$\text{mass emission rate (kg/day)} = 3.79 \times Q \times C,$$

where "C" (in mg/L) is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" (in MGD) is the measured daily flow rate or the average of measured daily flow rates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph G.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.

12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision G.10, above, using the "six-month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.

13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.

14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period

$$\text{Average} = (X1 + X2 + \dots + Xn) / n$$

in which "n" is the number of days samples were analyzed during the period and "X" is either the constituent concentration (mg/l) or mass emission rate (kg/day or lbs/day) for each sampled day. "n" should be four or greater.

15. "Municipality" means a city, town, borough, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial waste, or other waste.



16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.
17. "Pollutant-free wastewater" means inflow and infiltration, storm waters, and cooling waters and condensates which are essentially free of pollutants.
18. "Primary Industry Category" means any industry category listed in 40 CFR Part 122, Appendix A.
19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using "Monthly averages" of pollutant concentrations (C, in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

$$C_{\text{Effluent}} \text{ Removal Efficiency (\%)} = 100 \times (1 - C_{\text{effluent}} / C_{\text{influent}})$$

20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass". It does not mean economic loss caused by delays in production.
21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
22. To "significantly contribute" to a permit violation means an "indirect discharger" must:
- Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by Federal, State, or Local law;
  - Discharge wastewater which substantially differs in nature or constituents from its average discharge;
  - Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or
  - Discharge pollutants, either alone or in conjunction with pollutants from other sources, that increase the magnitude or duration of permit violations.
23. "Toxic Pollutant" means any pollutant listed as toxic under Section 307 (a) (1) of the Clean Water Act or under 40 CFR Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions I.E.5.).

**24.** "Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Resources Control Board.

**ATTACHMENT E – MONITORING AND REPORTING PROGRAM**

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)**

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

The monitoring program for a discharger receiving a Clean Water Act Section 301(h) Modified National Pollutant Discharge Elimination System (NPDES) permit is intended to: a) document short and long-term effects of the discharge on receiving waters, sediments, biota, and on beneficial uses of the receiving water; b) determine compliance with NPDES permit requirements and conditions; and c) assess the effectiveness of industrial pretreatment and toxics control programs.

### **I. GENERAL MONITORING PROVISIONS**

The Regional Water Board and U.S. Environmental Protection Agency, Region IX (USEPA) may revise the monitoring program presented herein, within the specified order and permit period. The program will be reviewed at annual intervals to assess its effectiveness at meeting the objectives stated above. If predictable relationships among effluent, water quality and biological monitoring variables can be clearly demonstrated, it may be appropriate to decrease certain elements of the monitoring program. Conversely, the monitoring program may be intensified if it appears that the above objectives cannot be achieved through the existing monitoring program.

- A.** Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health (CDPH), in accordance with CWC section 13176, and must include quality assurance/quality control data with their reports.
- B.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Regional Water Board and USEPA.
- C.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes. Guidance in

selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.

1. A Guide to Methods and Standards for the Measurement of Water Flow, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
  2. Water Measurement Manual, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
  3. Flow Measurement in Open Channels and Closed Conduits, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
  4. NPDES Compliance Sampling Manual, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)
- D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005). Analyses for toxics listed in Table B of the California Ocean Plan (2005) shall adhere to guidance and requirements contained in that document. The Minimum Levels identified in the 2005 Ocean Plan represent the lowest concentration of a pollutant that can be quantitatively measured in a sample given the current state of performance in analytical chemistry methods in California.

**II. MONITORING LOCATIONS**

A. The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, receiving water limitations, and other requirements in this Order/Permit. Monitoring stations have been located to assess the short-term environmental impacts of the discharge on the receiving water, benthic sediment, and biota in the vicinity of the outfall.

**Table E-1 – Monitoring Station Locations**

Monitoring Location Name	Description	Latitude	Longitude	Distance from Reference
M-INF	Treatment Plant Headworks Effluent, downstream of any inplant return flows or disinfection units (Discharge Point 001)	--	--	--
001		--	--	--
<b>Surf Zone Monitoring Locations</b>				<b>Along-Shore Distance</b>
A	Goleta Point	--	--	--
A1	500 meters downcoast of Goleta Point	--	--	--
A2	1,000 meters west of outfall	--	--	--
B	300 meters west of outfall	--	--	--
C	Onshore at outfall	--	--	--
D	300 meters east of outfall	--	--	--
E	1,000 meters east of outfall	--	--	--
<b>Nearshore (Ocean) Monitoring Locations</b>				<b>Distance from Diffuser Center (m)</b>
K1	West of outfall at offshore edge of kelp bed (defined as 60 ft contour)	34° 24'37" N	119° 50' 12" W	1,200
K2	West of outfall, at offshore edge of kelp bed	34° 24'55" N	119° 49' 49" W	200
K3	Above outfall at offshore edge of kelp bed	34° 24'55" N	119° 50' 35" W	0
K4	East of outfall at offshore edge of kelp bed	34° 24'54" N	119° 49' 24" W	200
K5	East of outfall at offshore edge of kelp bed	34° 24'50" N	119° 48' 56" W	1,200

Monitoring Location Name	Description	Latitude	Longitude	Distance from Reference
<b>Ocean Station Monitoring Locations</b>				<b>Distance from Diffuser Center (m)</b>
B-1	1,500 meters west and at same depth as diffuser	34° 24' 17" N	119° 50' 31" W	1,500
B-2	500 meters west and at same depth as diffuser	34° 24' 25" N	119° 49' 72" W	500
B-3	250 meters west and at same depth as diffuser	34° 24' 27" N	119° 49' 55" W	250
B-4	25 meters west and at same depth as diffuser	34° 24' 36" N	119° 49' 36" W	25
B-5	25 meters east and at same depth as diffuser	34° 24' 40" N	119° 49' 29" W	25
B-6	3,000 meters east and at same depth as diffuser	34° 24' 45" N	119° 47' 54" W	3,000

<b>Benthic Monitoring Locations</b>				<b>Distance from Diffuser Center (m)</b>
B-1	1,500 meters west of the diffuser	34° 24' 17" N	119° 50' 31" W	1,500
B-2	500 meters west of the diffuser	34° 24' 25" N	119° 49' 72" W	500
B-3	250 meters west of the diffuser	34° 24' 27" N	119° 49' 55" W	250
B-4	25 meters west of the diffuser	34° 24' 36" N	119° 49' 36" W	25
B-5	25 meters east of the diffuser	34° 24' 40" N	119° 49' 29" W	25
B-6	3,000 meters east of the diffuser	34° 24' 45" N	119° 47' 54" W	3,000

**B. Plume Monitoring Stations**

- WC-ZID      25 meters from the outfall in the wastewater plume
- WC-100M    In the plume, 100 meters from the outfall on the same heading as WC-ZID

Plume location shall be determined at the time of sampling by a combination of temperature-salinity profiles and light transmittance readings, and/or by drogue tracking. Drogue tracking is necessary where profiles fail to positively identify plume direction. The drogue shall be placed at the center of the diffuser, in the effluent plume and allowed to move with the wastewater field to the two plume stations. Plume thickness shall be determined and samples taken mid-depth in the plume. If plume depth/thickness cannot be determined, the plume sample shall be taken 3 meters below the thermocline. Reference

samples shall be obtained at the same depth at station B6. All plume locating data and thickness shall be reported and discussed in the quarterly reports.

### C. Trawl Stations

- TB3 Begin trawl at ocean station B3, first trawl heading west (away from station) at depth (isobath) of diffuser mid-point (approximately 25 meters)
- TB6 Begin trawl at ocean station B6, first trawl heading east (away from station) at depth (isobath) of diffuser mid-point (approximately 25 meters) (reference)

## III. INFLUENT MONITORING REQUIREMENTS

### A. Monitoring Location M-INF

- The Discharger shall monitor representative samples<sup>1</sup> of influent to the treatment plant at M-INF as follows:

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Daily Flow	MG	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
BOD <sub>5</sub> (20°C)	mg/L	24-hr Composite	3 days/week
Suspended Solids	mg/L	24-hr Composite	5 days/week
Grease and Oil	mg/L	Grab	Every two weeks
pH	pH units	Grab	Weekly
Rainfall	Inches	Measured	Daily
Arsenic	µg/L	24-hr. Composite	Monthly
Cadmium	µg/L	24-hr. Composite	Monthly
Chromium(Hex) <sup>[1]</sup>	µg/L	24-hr. Composite	Monthly
Copper	µg/L	24-hr. Composite	Monthly
Lead	µg/L	24-hr. Composite	Monthly
Mercury	µg/L	24-hr. Composite	Monthly
Nickel	µg/L	24-hr. Composite	Monthly
Silver	µg/L	24-hr. Composite	Monthly
Zinc	µg/L	24-hr. Composite	Monthly
Selenium	µg/L	24-hr. Composite	Annually (Oct)
Cyanide	µg/L	Grab	Annually (Oct)
Ocean Plan Table B Constituents <sup>[2]</sup> and	Units per Table B	24-Hr Composite	Annually (Oct) <sup>[4]</sup>

<sup>1</sup> Influent samples shall be corrected to compensate for in-plant return flows.



Remaining Priority Toxic Pollutants <sup>[3]</sup>			
--	--	--	--

<sup>[1]</sup> Discharger may at their option meet this limitation as total chromium limitation.

<sup>[2]</sup> Those pollutants identified in Table B of the Ocean Plan (2005) other than the metals listed above in this table. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table B; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

<sup>[3]</sup> See Table E-4 below for Remaining Priority Toxic Pollutants.

<sup>[4]</sup> Influent monitoring shall be coordinated during the same time frame as effluent sampling scheduled in section IV.A of this MRP.

#### IV. EFFLUENT MONITORING REQUIREMENT

##### A. Monitoring Location 001

1. The Discharger shall monitor representative effluent samples (downstream of any in-plant return flows or disinfection units) at 001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Daily Flow	MG	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
Temperature	°C	Grab	5 days/week
Total Coliform	MPN/100 mL	Grab	5 days/week
Fecal Coliform	MPN/100 mL	Grab	5 days/week
Enterococcus	MPN/100 mL	Grab	5 days/week
BOD <sub>5</sub> (20°C)	mg/L	24-hr Composite	5 days/week
Suspended Solids	mg/L	24-hr Composite	5 days/week
Settleable Solids	mg/L	Grab	5 days/week
Total Chlorine Residual (chlorine contact tank)	mg/L	Grab	Daily
Ammonia (as N)	mg/L	Grab	Monthly
Acute Toxicity <sup>[1]</sup>	TUa	24-hr Composite	Quarterly (Jan/Apr/Jul/Oct)
Chronic Toxicity <sup>[1]</sup>	TUc	24-hr Composite	Quarterly (Jan/Apr/Jul/Oct)
Grease and Oil	mg/L	Grab	Weekly
pH	pH units	Grab	5 days/week

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Turbidity	NTU	Grab	5 days/week
Total Chlorine Residual (Final Effluent)	mg/L	Continuous	Continually
Arsenic <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Cadmium <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Chromium(Hex) <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Copper <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Lead <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Mercury <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Nickel <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Silver <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Zinc <sup>[2]</sup>	µg/L	24-hr. Composite	Monthly
Selenium <sup>[2]</sup>	µg/L	24-hr. Composite	Annually (Oct)
Cyanide <sup>[2]</sup>	µg/L	Grab	Annually (Oct)
Ocean Plan Table B Constituents <sup>[3]</sup> and Remaining Priority Toxic Pollutants <sup>[4]</sup>	µg/L	24-hr. Composite	Annually (Oct)

<sup>[1]</sup> Whole effluent, acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V of this MRP.

<sup>[2]</sup> Analysis shall be for total recoverable metals.

<sup>[3]</sup> Those pollutants identified in Table B of the Ocean Plan (2005) other than the metals listed above in this table. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table B; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

<sup>[4]</sup> See Table E-4 below for Remaining Priority Toxic Pollutants.

**Table E-4: Remaining Priority Toxic Pollutants**

From 40 CFR 131.36 (7-1-03 Edition), and EPA Application Form 3510-2A (Rev. 1-99)

Parameter	Units	Sample Type	Min. Sampling Frequency
Acenaphthene	µg/L	24-hr Composite	Annually (Oct)
1,2,4,-Trichlorobenzene	µg/L	24-hr Composite	Annually (Oct)
2-Chloronaphthalene	µg/L	24-hr Composite	Annually (Oct)
2,6-Dinitrotoluene	µg/L	24-hr Composite	Annually (Oct)
4-Chlorophenyl Phenyl Ether	µg/L	24-hr Composite	Annually (Oct)
4-Bromophenyl Phenyl Ether	µg/L	24-hr Composite	Annually (Oct)
Naphthalene	µg/L	24-hr Composite	Annually (Oct)
Butylbenzyl Phthalate	µg/L	24-hr Composite	Annually (Oct)
Di-N-Octyl Phthalate	µg/L	24-hr Composite	Annually (Oct)
Benzo(a)Anthracene	µg/L	24-hr Composite	Annually (Oct)
Benzo(ghi)Perylene	µg/L	24-hr Composite	Annually (Oct)
P-Chloro-M-Cresol	µg/L	24-hr Composite	Annually (Oct)

Parameter	Units	Sample Type	Min. Sampling Frequency
2-Chlorophenol	µg/L	24-hr Composite	Annually (Oct)
2,4-Dichlorophenol	µg/L	24-hr Composite	Annually (Oct)
2,4-Dimethylphenol	µg/L	24-hr Composite	Annually (Oct)
4,6-Dinitro-O-Cresol	µg/L	24-hr Composite	Annually (Oct)
2-Nitrophenol	µg/L	24-hr Composite	Annually (Oct)
4-Nitrophenol	µg/L	24-hr Composite	Annually (Oct)
Pentachlorophenol	µg/L	24-hr Composite	Annually (Oct)
Phenol	µg/L	24-hr Composite	Annually (Oct)
1,1-Dichloroethane	µg/L	24-hr Composite	Annually (Oct)
Chloroethane	µg/L	24-hr Composite	Annually (Oct)
Endrin Aldehyde	µg/L	24-hr Composite	Annually (Oct)
Trans-1,2-Dichloroethylene	µg/L	24-hr Composite	Annually (Oct)
1,2-Dichloropropane	µg/L	24-hr Composite	Annually (Oct)
1,3-Dichloropropylene	µg/L	24-hr Composite	Annually (Oct)
Methylene Chloride	µg/L	24-hr Composite	Annually (Oct)
2-Chloroethyl Vinyl Ether	µg/L	24-hr Composite	Annually (Oct)

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Acute Toxicity Testing

Compliance with acute toxicity objective (TUa) shall be determined using a USEPA approved protocol as provided in 40 CFR PART 136 (U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, EPA-821-R-02-012, or subsequent editions). Acute toxicity monitoring shall be conducted using marine test species instead of freshwater species when measuring compliance (2005 Ocean Plan, Appendix III, *Standard Monitoring Procedures*).

Acute Toxicity (TUa) = 100/96-hr LC 50. LC 50 (percent waste giving 50% survival of test organisms) shall be determined by 96-hour static renewal tests. The Discharger shall use one of the approved marine test species identified in EPA-821-R-02-012, preferably using Silversides (*Menidia beryllina*); however, other approved marine test species in EPA-821-R-02-012 may be used with sufficient justification by the Discharger and approval by the Executive Officer.

If the effluent is to be discharged to a marine system (e.g., salinity values in excess of 1,000 mg/L) originates, entirely or in part, from a freshwater supply, salinity of the effluent must be increased with dry ocean salts (e.g., FORTY FATHOMS®) to match salinity of the receiving water. This modified effluent shall then be tested using marine species.

Reference toxicant tests shall be conducted concurrently with the effluent sample tests. Both tests must satisfy the test acceptability criteria specified in the reference cited above. If the test acceptability criteria are not achieved or if toxicity is detected, the sample shall be retaken and retested within 5 days of the failed sampling event.

The retest results shall be reported in accordance with the chapter on report preparation and in the reference cited above, and the results shall be attached to the next monitoring report.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = [\log(100 - S)]/1.7$$

where S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

## B. Chronic Toxicity Testing

The presence of chronic toxicity shall be estimated as specified in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA-821/600/R-95/136; Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, EPA-600-4-91-003; Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Project, SWRCB 1996, 96-1WQ; and/or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, EPA/600/4-87-028 or subsequent editions.

Chronic toxicity measures a sublethal effect (e.g., reduced growth or reproduction) to experimental test organisms exposed to an effluent compared to that of the control organisms.

Chronic Toxicity (TUc) = 100/NOEL.

The no observed effect level (NOEL) is the maximum tested concentration in a medium which does not cause known adverse effects upon chronic exposure in the species in question (i.e., the highest effluent concentration to which organisms are exposed in a chronic test that causes no observable adverse effects on the test organisms; e.g., the highest concentration of a toxicant to which the values for the observed responses are not statistically significantly different from the controls). Examples of chronic toxicity include but are not limited to measurements of toxicant effects on reproduction, growth, and sublethal effects that can include behavioral, physiological, and biochemical effects.

In accordance with the 2005 Ocean Plan, Appendix III, *Standard Monitoring Procedures*, the Discharger shall use the critical life stage toxicity tests specified in the table below to measure TUc. Other species or protocols will be added to the list after State Water Board review and approval.

If the effluent is to be discharged to a marine system (e.g., salinity values in excess of 1,000 mg/L) originates, entirely or in part, from a freshwater supply, salinity of the effluent must be increased with dry ocean salts (e.g., FORTY FATHOMS®) to match salinity of the receiving water. This modified effluent shall then be tested using marine species.

**Table E-5. Approved Tests—Chronic Toxicity**

Species	Test	Tier <sup>[1]</sup>	Reference <sup>[2]</sup>
Giant kelp, <i>Macrocystis pyrifera</i>	percent germination; germ tube length	1	a, c
Red abalone, <i>Haliotis rufescens</i>	abnormal shell development	1	a, c
Oyster, <i>Crassostrea gigas</i> ; mussels, <i>Mytilus spp.</i>	abnormal shell development; percent survival	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	percent normal development	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	percent fertilization	1	a, c
Shrimp, <i>Homesimysis costata</i>	percent survival; growth	1	a, c
Shrimp, <i>Mysidopsis bahia</i>	percent survival; fecundity	2	b, d
Topsmelt, <i>Atherinops affinis</i>	larval growth rate; percent survival	1	a, c
Silverside, <i>Menidia beryllina</i>	larval growth rate; percent survival	2	b, d

1 - First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second tier test method following approval by the Regional Water Board.

2 - Protocol References:

- a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. USEPA Report No. EPA/600/R-95/136.
- b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms. USEPA Report No. EPA-600-4-91-003.
- c. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ.
- d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1998. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

Dilution and control waters shall be obtained from an area of the receiving waters, typically upstream, which is unaffected by the discharge. Standard dilution water can be used, if the receiving water itself exhibits toxicity or if approved by the Regional Water Board. If the dilution water used in testing is different from the water in which the test organisms were cultured, a second control sample using culture water shall be tested.

A minimum of three test species with approved test protocols with approved test protocols shall be used to measure compliance with the toxicity objective. The test species shall include a vertebrate, an invertebrate, and an aquatic plant. The sensitivity of test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. After a screening period of no less than three tests, monitoring may be reduced to the most sensitive species.

The Discharger shall include a full report of toxicity test results with the regular monthly monitoring report and include the following information.

- a. toxicity test results,
- b. dates of sample collection and initiation of each toxicity test, and
- c. acute and/or chronic toxicity discharge limitations (or value).

Toxicity test results shall be reported according to the appropriate guidance - Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA Office of Water, EPA-821-R-02-012 (2002) or the latest edition, or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012 (2002) or subsequent editions.

If the initial investigation TRE workplan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the monitoring report for the month in which investigations conducted under the TRE workplan occurred.

Within 14 days of receipt of test results exceeding a chronic toxicity discharge limitation, the Discharger shall provide written notification to the Executive Officer of:

- a. Findings of the TRE or other investigation to identify the cause(s) of toxicity,
- b. Actions the Discharger has taken/will take, to mitigate the impact of the discharge and to prevent the recurrence of toxicity.

When corrective actions, including a TRE, have not been completed, a schedule under which corrective actions will be implemented, or the reason for not taking corrective action, if no action has been taken.

### C. Toxicity Identification / Reduction Evaluations

If the discharge consistently exceeds an effluent limitation for toxicity specified by Section IV of this Order/Permit, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan.

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

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow in the event that a toxicity effluent limitation established by this Order/Permit is exceeded in the discharge. The workplan shall be prepared in accordance with current technical guidance and reference material, including EPA/600/2-88-070 (for industrial discharges) or EPA/600/2-88/062 (for municipal discharges), and shall include, at a minimum:

1. Actions that will be taken to investigate/identify the causes/sources of toxicity,
2. Actions that will be evaluated to mitigate the impact of the discharge, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken), and
3. A schedule under which these actions will be implemented.

When monitoring measures toxicity in the effluent above the limitation established by this Order/Permit, the Discharger shall resample immediately, if the discharge is continuing, and retest for whole effluent toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer (EO) as soon as possible following receipt of monitoring results. The EO will determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. The Discharger shall conduct a TRE giving due consideration to guidance provided by the *USEPA's Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3* (EPA document nos. EPA 600/3-88/034, 600/3-88/035, and 600/3-88/036, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

#### **Table E-6. Toxicity Reduction Evaluation—Schedule**

Action Step	When Required
Take all reasonable measures necessary to immediately reduce toxicity, where the source is known.	Within 24 hours of identification of noncompliance.
Initiate the TRE in accordance to the Workplan.	Within 7 days of notification by the EO
Conduct the TRE following the procedures in the Workplan.	Within the period specified in the Workplan (not to exceed one year, without an approved Workplan)
Submit the results of the TRE, including summary of findings, required corrective action, and all results and data.	Within 60 days of completion of the TRE
Implement corrective actions to meet Permit limits and conditions.	To be determined by the EO

**VI. LAND DISCHARGE MONITORING REQUIREMENTS**

This section of the standardized permit form is not applicable to this Discharger.

**VII. RECLAMATION MONITORING REQUIREMENTS**

The Discharger shall comply with Waste Discharge Requirements Order No. 91-03 for reclaimed water production. The Discharger shall comply with applicable State and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the California Department of Public Health at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Criteria. The Goleta Water District, as the primary user of reclaimed water, is responsible for the distribution and use of reclaimed water to the general public under Order No 91-04.

**VIII. RECEIVING WATER MONITORING REQUIREMENTS**

**A. Surf-Zone Monitoring**

Surf zone monitoring is conducted at stations A, A1, A2, B, C, D, and E to determine compliance with water quality standards, to assess bacteriological conditions in areas used for water contact recreation, where shellfish and/or kelp may be harvested for human consumption, and to assess aesthetic conditions for general recreational uses.

Monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), sea state (height of swells and waves), longshore current (e.g., direction), tidal condition (high, slack, low), water discoloration, floating grease and oil, turbidity, odor, and materials of sewerage origin in the water shall be recorded and



reported. Surf zone samples shall be collected as far seaward as possible within the surf zone. All surf zone stations shall be monitored as follows:

**Table E-7. Surf Zone Monitoring**

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Total Coliform	MPN/100 mL	Grab	Weekly
Fecal Coliform	MPN/100 mL	Grab	Weekly
Enterococcus	MPN/100 mL	Grab	Weekly
Temperature	°C	Grab	Weekly

Samples influenced by discharges from Goleta Slough, flood control channels, or samples collected on a rainy day and up to three days after a large rain are excluded from the calculation of compliance with receiving water limits.

## B. Near-Shore Monitoring

Nearshore monitoring is conducted at stations K1, K2, K3, K4, and K5 to determine compliance with water quality standards, to assess bacteriological conditions in areas used for water contact recreation (e.g., swimming, SCUBA diving) and where shellfish and/or kelp may be harvested for human consumption, and to assess aesthetic conditions for general recreational uses (e.g., boating).

Monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), sea state (height of swells and waves), longshore current (e.g., direction), tidal condition (high, slack, low), water discoloration, floating grease and oil, turbidity, odor, and materials of sewerage origin in the water shall be recorded and reported. Water samples shall be collected between the hours of 7 AM and 6 PM at stations K1, K2, K3, K4, and K5. The water column parameters to be monitored at 1.0 meter below the surface, mid depth, and 1.0 meter above the bottom are:

**Table E-8. Near-Shore Monitoring**

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Total Coliform	MPN/100 mL	Grab	Quarterly
Fecal Coliform	MPN/100 mL	Grab	Quarterly
Enterococcus	MPN/100 mL	Grab	Quarterly
Temperature	°C	Grab	Quarterly
Water Depth	meters	Measured	Quarterly

## C. Ocean Station Monitoring

Offshore monitoring of the water column is conducted at ocean stations B1, B2, B3, B4, B5, and B6, and plume stations WC-ZID and WC-100m to determine compliance with water quality standards and to document any water quality impacts that might result

from the waste discharge within the ZID and beyond the ZID, as compared to water quality at the reference station (B6).

Data may be obtained using multiple electronic probes (as appropriate) to measure parameters (i.e., dissolved oxygen, pH, salinity, temperature, and natural light) through the entire water column, or by measurement of discrete samples collected at 1.0 meter below the surface, 3 meter intervals within the water column, and 1.0 meter above the bottom.

Water samples shall be collected between the hours of 7 AM and 6 PM at stations B1, B2, B3, B4, B5, B6, WC-ZID, and WC-100M. The water column parameters to be monitored are:

**Table E-9. Ocean Station Monitoring**

Parameter	Units	Sample Location	Minimum Frequency of Sampling/Analysis
Total Coliform	MPN/100 mL	Various <sup>2</sup>	Quarterly
Fecal Coliform	MPN/100 mL	Various <sup>2</sup>	Quarterly
Enterococcus	MPN/100 mL	Various <sup>2</sup>	Quarterly
Temperature	°C	Water column	Quarterly
Dissolved Oxygen	mg/L	Water column	Quarterly
Natural Light	light transmissivity	Water column	Quarterly
pH	pH units	Water column	Quarterly
Salinity	ppt	Water column	Quarterly
Grease and Oil	Visual	Surface	Quarterly
Discoloration	Visual	Surface	Quarterly
Floating Particles	Visual	Surface	Quarterly

#### D. Notification and Monitoring Procedures in the Event of Disinfection Failure

The Discharger shall notify the California Department of Public Health Preharvest Shellfish Sanitation Unit (CDPH), the Regional Water Board, the Santa Barbara County Environmental Health Services Department, and each certified commercial shellfish grower located in the Santa Barbara Nearshore Aquaculture Area as set forth in a list provided by CDPH, in the event of a malfunction of the Discharger's wastewater treatment facility's disinfection process which results in a potential or actual discharge of inadequately disinfected effluent into the Santa Barbara Channel (an "Event"). Such notification by the Discharger shall be by phone to the numbers provided to the Discharger by CDPH. If the Discharger becomes aware of the Event between the hours of 6:00 a.m. and 5:00 p.m., notification shall be given within four (4) hours of the time

<sup>2</sup> Collected at 1.0 meter below the surface, mid depth, and 1.0 meter above the bottom.

that the Discharger becomes aware of the Event. If the Discharger becomes aware of the Event after 5:00 p.m., notification shall be given by 10:00 a.m. the next day.

By providing notification of an Event as specified above, the Discharger shall not be deemed to have concluded that the Event will or may impact any commercial shellfish growing areas or require the closure of any growing areas. Any decision or recommendation to close a growing area in response to a notification of an Event by the Discharger shall be made by CDPH and/or the affected or potentially affected certified commercial shellfish grower(s). The Discharger shall have no liability (including but not limited to liability for lost sales, profits or interpretation of business operations) arising from a decision by CDPH or a shellfish grower to close a growing area in response to a notification of an Event where no actual adverse impact on the growing area from the Event has been established. Each certified commercial shellfish grower located in the Santa Barbara Nearshore Aquaculture Area shall execute a written document acknowledging the foregoing limitation on the Discharger's liability in connection with its Event notification obligations set forth above, and the Discharger shall not be required to provide any notification of an Event to any shellfish grower who fails to execute such written acknowledgement.

**IX. BENTHIC MONITORING**

- A. Benthic Sediment Monitoring** - Annually (October), sediment monitoring shall be conducted at stations B1, B2, B3, B4, B5, and B6 to assess the temporal and spatial occurrence of pollutants in local marine sediments and to evaluate the physical and chemical quality of the sediments in relation to the outfall. At stations B1, B2, B3, B4, B5, and B6, one (1) grab sample shall be collected using a 0.1 m<sup>2</sup> modified Van Veen grab sampler; the top 2 cm of materials from each grab sample shall be analyzed individually for the following parameters:

**Table E-10. Benthic Sediment Monitoring**

Parameter	Units	Minimum Frequency of Sampling/Analysis
Sediment particle size <sup>3</sup>	phi size (% volume)	Annually
Grease and Oil	µg/g	Annually
Total Kjeldahl Nitrogen	µg/g	Annually
Total Organic Carbon	µg/g	Annually
Acid Volatile Sulfide	µg/g	Annually
Aluminum	µg/g	Annually
Antimony	µg/g	Annually
Arsenic	µg/g	Annually
Cadmium	µg/g	Annually
Chromium	µg/g	Annually

<sup>3</sup> Report percent (%) weight in relation to phi size.

Parameter	Units	Minimum Frequency of Sampling/Analysis
Copper	µg/g	Annually
Iron	µg/g	Annually
Lead	µg/g	Annually
Mercury	µg/g	Annually
Nickel	µg/g	Annually
Selenium	µg/g	Annually
Silver	µg/g	Annually
Tin	µg/g	Annually
Zinc	µg/g	Annually
Aldrin	ng/g	Annually
Chlordane <sup>4</sup>	ng/g	Annually
DDT <sup>5</sup>	ng/g	Annually
Dieldrin	ng/g	Annually
Heptachlor <sup>6</sup>	ng/g	Annually
Heptachlor <sup>25</sup> epoxide	ng/g	Annually
Hexachlorobenzene	ng/g	Annually
HCH <sup>7</sup>	ng/g	Annually
Mirex	ng/g	Annually
PAHs <sup>8</sup>	ng/g	Annually
1-methylnaphthalene	ng/g	Annually
1-methylphenanthrene	ng/g	Annually
2-methylnaphthalene	ng/g	Annually
2,6-dimethylnaphthalene	ng/g	Annually
1,6,7-trimethylnaphthalene	ng/g	Annually
Acenaphthene	ng/g	Annually
Biphenyl	ng/g	Annually

<sup>4</sup> CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlorden-alpha, chlorden-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

<sup>5</sup> DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

<sup>6</sup> HEPTACHLOR formerly meant the sum of heptachlor and heptachlor epoxide – each specie is now listed.

<sup>7</sup> HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

<sup>8</sup> PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

Parameter	Units	Minimum Frequency of Sampling/Analysis
Naphthalene	ng/g	Annually
Benzo(a)anthracene	ng/g	Annually
Benzo(b)fluoranthene	ng/g	Annually
Benzo(e)pyrene	ng/g	Annually
Benzo(ghi)perylene	ng/g	Annually
Fluoranthene	ng/g	Annually
Perylene	ng/g	Annually
PCBs <sup>9</sup>	ng/g	Annually

Sediment samples analyzed for parameters other than organic priority pollutants shall be placed in air-tight polyethylene or glass containers. Separate subsamples for dissolved sulfides analysis shall be placed in small (100-200 mL) wide-mouth bottles and preserved with zinc acetate. The preservative must be carefully mixed with the sediment sample. Sediment samples collected for organic priority pollutant analysis should be placed in air-tight glass containers. All containers should be completely filled by the sediment sample and air bubbles should not be trapped in the containers. Samples shall be stored immediately at 2 to 4°C and not frozen or dried. Total sample storage time shall not exceed two (2) weeks.

When processing samples for analysis, macrofauna and large remnants greater than 0.25 inches (0.64 cm) should be removed, taking care to avoid contamination.

Sediment samples shall be analyzed according to Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987) and Analytical Methods for EPA Priority Pollutants and 301(h) Pesticides in Estuarine and Marine Sediments (EPA 503-6-90-004), 1986), or the most recent editions.

All sediment results shall be reported in the raw form and expressed on a dry weight basis. For all non-detect results, parameter detection limits shall be reported. Dry weight concentration target detection levels are indicated for National Oceanic and Atmospheric Administration (NOAA) National Status and Trends Program analyses.

Chemical results normalized to the percent fine sediment fraction (i.e., phi 4), total organic carbon (TOC), etc., for analytical comparisons are calculated as follows:

$$\text{normalized result} = \frac{\text{raw result}}{\% \text{ X (as a decimal)}}$$

<sup>9</sup> PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

The annual report on benthic monitoring shall include a complete discussion of benthic sediment survey results and (possible) influence of the discharge on sediment conditions in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns observed for raw and normalized sediment parameters. The annual report should also present an analysis of natural variation in sediment conditions, etc., which could influence the validity of study results. The Discharger's sediment results may also be compared with the results of other applicable studies, numeric protective levels, etc., as appropriate. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## **B. Benthic Community Monitoring**

Benthic infaunal organisms shall be monitored annually, in October, at the benthic monitoring stations described in Section II, *Monitoring Locations*, above. Benthic infaunal monitoring shall assess the temporal and spatial status of local benthic communities in relation to the outfall. Sampling shall be conducted as follows:

1. Collection: Five replicate samples shall be collected at each station using a 0.1 m<sup>2</sup> Van Veen grab sampler.
2. For benthic infauna analyses, each replicate sample shall be passed through a 1 mm screen, and the organisms retained and preserved as appropriate for subsequent identification. It is recommended that sample preservation, sample processing, and data analyses be conducted according to Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987).
3. Benthic infauna from each replicate sample shall be counted and identified to the lowest possible taxon. For each replicate sample, number of individuals, number of species, and number of individuals per species, and within each major taxonomic group (polychaetes, molluscs, crustaceans, echinoderms, and all other macroinvertebrates) shall be recorded.
4. The names and qualifications of persons handling and identifying benthic fauna shall be given in all data reports. A voucher collection shall be established containing a sample of each taxon identified to species. These vouchers will be maintained by the Discharger during this permit period and deposited in archival institutions at permit termination. All remaining organisms from infaunal samples will be stored as separate replicate samples by the Discharger for ten (10) years after the effective date of this permit.
5. The annual report shall include a complete discussion of benthic infaunal survey results and (possible) influence of the outfall on benthic infauna communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns. Temporal trends in the number of

individuals, number of species, number of individuals per species, and community structure indices, species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's Index (SI), Swartz's dominance, Benthic Response Index (BRI), and Infaunal Trophic Index (ITI) shall be reported. Classification analyses, using Bray-Curtis similarity index, and the group average clustering strategy, or the flexible sorting strategy, should be conducted. The annual report should also present an analysis of natural community variation including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## X. TRAWL SURVEY

Annually (October), duplicate trawl sampling is conducted at stations TB3 and TB6 to assess fish and epibenthic macroinvertebrate populations, to determine whether significant differences exist between populations at the outfall area (station TB3) and at the reference area (station TB6), and to assess bioaccumulation of toxic pollutants.

A standardized trawl shall be a Marinovich 25 ft head rope otter trawl, towed along the diffuser mid-point depth (approximately 25 m isobath) for a minimum duration of ten minutes at a uniform speed of between 2.0 and 2.5 knots. Necessary steps shall be taken to ensure that both trawls at each station do not sweep the stations sampled for sediments and benthic biota and that the second trawl at each station covers the same distance but does not sweep the same path as the first trawl. Trawling distance, duration, and direction shall be reported.

Fish and epibenthic macroinvertebrates collected by each trawl shall be identified to the lowest possible taxon. The following data shall be collected and reported for each duplicate trawl at each station: number of individuals (fish), number of individuals (epibenthic macroinvertebrates), number of species (fish), number of species (epibenthic macroinvertebrates), number of individuals per species, wet weight of each species, number per size class per species (fish), standard length of each individual (fish), and abnormalities and disease symptoms (e.g., fin erosion, external and internal lesions, and tumors).

The names and qualifications of persons handling and identifying fish and epibenthic macroinvertebrates shall be given in all data reports. A voucher collection shall be established containing a sample of each taxon identified to species. These vouchers will be maintained by the Discharger during this permit period and deposited in archival institutions at permit termination. After selection of vouchers, trawl materials shall be returned to the sea during the field survey.

The annual report on fish and epibenthic macroinvertebrate monitoring shall include a complete discussion of trawl survey results and (possible) influence of the outfall on fish and epibenthic macroinvertebrate communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses (see

section XII, Data Analysis) of spatial and temporal patterns observed for number of individuals, number of species, number of individuals per species, etc., and community structure indices: species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's Index (SI), and Swartz's dominance. Classification analyses, using the Bray-Curtis similarity index, and the group average clustering strategy (i.e., the unweighted pair-group method using arithmetic averages), or the flexible sorting strategy, should be conducted. The annual report should also present an analysis of natural variation in fish and epibenthic macroinvertebrate communities including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## XI. BIOACCUMULATION MONITORING

### A. Fish

Annually (October), tissues of commercially and/or ecologically important fish species common to both trawl stations shall be analyzed for specified parameters (see section XI.C, Chemical Analysis) at stations TB3 and TB6. For tissue analyses, three (3) composite samples shall be taken from the combined catch of duplicate trawls at station TB3 and three (3) composite samples shall be taken from the combined catch of duplicate trawls at station TB6. If duplicate trawls do not yield sufficient amounts of organisms to allow for tissue analyses, fish may be caught using lines and/or traps.

Fish tissues analyzed shall be dorsal muscle and liver. Three composite samples shall be prepared for both of these tissues at stations TB3 and TB6. Each composite sample shall consist of tissues taken from at least six (6) individuals representing one species. When feasible, tissues from organisms of the same species should be analyzed from year to year.

The following commercially and/or ecologically important fish are suggested for bioaccumulation analysis:

- Pacific sand dab (Citharichthys sordidus);
- Speckled sand dab (Citharichthys stigmaeus);
- Yellowchin sculpin (Icelinus quadreseriatus)
- Bigmouth sole (Hippoglossina stomata);
- Dover sole (Microstomus pacificus); and
- Hornyhead turbot (Pleuronichthys verticalis).

Depending on distribution and abundance, other fish species may also be approved by the Regional Water Board and EPA.



**B. Caged Mussels (*Mytilus Californianus*)**

Annually (October), tissues of the California mussel, *Mytilus californianus*, shall be analyzed for specified parameters (see section XI.C, Chemical Analysis) to assess whether organisms in the vicinity of the discharge are bioaccumulating/bioconcentrating toxic pollutants [40 CFR 125.62(b)(1)(ii)]. This assessment shall be made according to methods and techniques approved by the Regional Water Board and USEPA, and should be based primarily on techniques developed by the National Mussel Watch Program and the State Mussel Watch Program. The program may be adjusted to effectively fulfill the objective of assessing whether the discharge is causing sublethal adverse biological effects, or otherwise altering the natural environment. All changes are subject to review and approval by the Regional Water Board and USEPA.

Mussels to be used for offshore bioaccumulation monitoring should be collected as high in the intertidal zone as possible to minimize variability in the condition of individuals. All individuals should be approximately the same size (i.e., 5 - 8 cm). Prior to deployment, 70 individuals representing the "time zero" (T<sub>0</sub>) population shall be composited and analyzed as outlined below. At stations B3, B4, and B6, mussels shall be deployed at a depth of 16 meters, for a period of 90 to 100 days. At least 70 individuals shall be deployed at each station; it is recommended that more than 70 individuals be deployed at each station to meet all sampling requirements. Mussels may be cleaned during the deployment period to minimize mortality due to biofouling and predation.

At each station, 70 mussels shall be divided into four (4) composite samples for analysis. One (1) composite sample comprised of 25 individuals shall be used to assess the biological effects of exposure (e.g., incidence of disease/parasitism, and shell length). Three (3) composite samples each comprised of 15 individuals shall be analyzed for the specified parameters (see section XI.C, Chemical Analysis). All analyses shall be conducted on undepurated individuals.

**C. Chemical Analysis**

Annually (October), the following parameters shall be measured in fish and California mussel (*Mytilus californianus*) tissues, as specified below. Reported results shall be based on wet and dry weight concentrations. For all non-detect results, detection limits must be reported. Dry weight concentration target detection levels are indicated for NOAA National Status and Trends Program analyses. At each station, all chemical parameters shall be analyzed and reported only for composite samples comprised of 15 individuals of *M. californianus* and composite samples of target fish species.

**Table E-11. Bioaccumulation Chemical Analysis**

Parameter	Units
Number of Individuals per Composite Sample	--

Parameter	Units
Survival <sup>10</sup>	--
Shell Length <sup>11</sup>	mm
Shell Cavity Weight <sup>11</sup>	g
Condition Factor <sup>11</sup>	--
Gonadal Index <sup>11</sup>	--
Arsenic	µg/g
Cadmium	µg/g
Chromium	µg/g
Copper	µg/g
Lead	µg/g
Mercury	µg/g
Nickel	µg/g
Selenium	µg/g
Silver	µg/g
Zinc	µg/g
Aldrin	ng/g
Chlordane <sup>12</sup>	ng/g
DDT <sup>13</sup>	ng/g
Dieldrin	ng/g
Heptachlor	ng/g
Hexachlorobenzene	ng/g
HCH <sup>14</sup>	ng/g
Mirex	ng/g
PAHs <sup>15</sup>	ng/g
1-methylnaphthalene	ng/g
1-methylphenanthrene	ng/g
2-methylnaphthalene	ng/g
2,6-dimethylnaphthalene	ng/g
1,6,7-trimethylnaphthalene	ng/g
Acenaphthene	ng/g
Biphenyl	ng/g
Naphthalene	ng/g
Benzo(a)anthracene	ng/g
Benzo(b)fluoranthene	ng/g
Benzo(e)pyrene	ng/g

<sup>10</sup> At each station, parameter shall be reported only for all deployed individuals of *M. californianus*.

<sup>11</sup> At each station, parameter shall be analyzed and reported only for composite samples comprised of 25 individuals of *M. californianus*.

<sup>12</sup> CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

<sup>13</sup> DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

<sup>14</sup> HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

<sup>15</sup> PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

Parameter	Units
Benzo(ghi)perylene	ng/g
Fluoranthene	ng/g
Perylene	ng/g
PCBs <sup>16</sup>	ng/g

The annual report on bioaccumulation monitoring shall include a complete discussion of bioaccumulation results and (possible) influence of the outfall on fish and M. californianus tissue concentrations in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses (see section XII, Data Analysis) of spatial and temporal patterns observed in tissue concentrations. The annual report should also present an analysis of natural variation in tissue concentrations that could influence the validity of study results. The Discharger's bioaccumulation results may also be compared with the results of other applicable studies, numeric protective levels (e.g., U.S. Food and Drug Administration Action Limits and Warning Levels, National Academy of Sciences Predator Protection Levels for Aquatic Wildlife and Marine Wildlife, Medians of International Standards), etc., as appropriate. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## XII. DATA ANALYSIS

Data analyses which may be required to determine temporal and spatial trends (within and between stations) in the marine environment include:

<sup>16</sup> PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

- A. Graphical and/or Tabular Analyses** - station means, ranges, standard deviations, and 95% confidence limits
- B. Univariate Statistical Analyses**
1. Analysis of Variance (ANOVA) - parametric test
  2. Kruskal-Wallis test - nonparametric test
  3. Other test methods as appropriate
- C. Multivariate Statistical Analyses**
1. Classification analyses - similarity and cluster analyses
  2. Other test methods as appropriate
- D. Biological Indices**
1. Species richness (S) - species number
  2. Margalef's species richness (d) - measure of species number
  3. Shannon-Wiener diversity (H) - combined measure of species and evenness
  4. Brillouin diversity (H) - combined measure of species and evenness
  5. Simpson's Index (SI) - measure of dominance
  6. Swartz's dominance - measure of dominance
  7. Infaunal Trophic Index (ITI) - Southern California Bight benthic infauna only
  8. Benthic Response Index (BRI) - average pollutant tolerance

### **XIII. BIOSOLIDS MONITORING**

The following information shall be submitted with the Annual Report required by Standard Provision C.16. Adequate detail should be included to characterize biosolids in accordance with 40 CFR 503.

1. A representative sample of residual solids (biosolids) shall be obtained from the last point in the handling process (i.e., in the drying beds just prior to removal). All constituents shall be analyzed annually for total concentrations for comparison with TTLC criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the STLC limit for that substance. Twelve (12) discrete representative samples shall be collected at separate locations in the biosolids ready for disposal. These 12 samples shall be composited to form one (1) sample for constituent analysis. For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan including number and location of sampling points, and collect representative samples. The analysis shall test for the metals required in 40 CFR 503.16 (for land application) or 503.26 (for surface disposal), using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA Publication SW-846, all applicable editions and updates), as required in 503.8(b)(4), at the minimum frequencies established therein, provided in the table below.

**Table E-12. Amount of Biosolids and Frequency for Analysis**

Amount <sup>[1]</sup> (dry metric tons/ 365-day period)	Frequency <sup>[2]</sup>
Greater than zero, but less than 290	Once per year.
Equal to or greater than 290 but less than 1500	Once per quarter (four times per year)
Equal to or greater than 1500 but less than 15,000	Once per sixty days (six times per year)
Greater than 15,000	Once per month (twelve times per year)

1 - For land application, either the amount of bulk biosolids applied to the land or the amount prepared for sale or give-away in a bag or other container for application to the land (dry weight basis). If the Discharger's biosolids are directly land applied without further treatment by another preparer, biosolids shall also be tested for organic-N, ammonium-N, and nitrate-N at the frequencies required. For surface disposal, the amount of biosolids placed on an active sludge unit (dry weight basis).

2 - Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

Biosolids shall be analyzed for the constituents in the following table.

**Table E-13. Biosolids Monitoring**

Constituent	Units	Type of Sample	Sampling/Analysis Frequency
Quantity Removed	Tons or yds <sup>3</sup>	Measured	Continual
Pathogen Density			per 40 CFR 503
Location of Reuse/Disposal	General Public or Specific Site		Annually
Moisture Content	%	Grab	Quarterly
Total Kjeldahl Nitrogen	mg/kg (dry) <sup>[1]</sup>	Grab	Quarterly
Ammonia(N)	mg/kg	Grab	Quarterly
Nitrate(N)	mg/kg	Grab	Quarterly
Total Phosphorus	mg/kg	Grab	Quarterly
Arsenic	mg/kg	Grab	Quarterly
Boron	mg/kg	Grab	Quarterly
Cadmium	mg/kg	Grab	Quarterly
Copper	mg/kg	Grab	Quarterly
Chromium (Hexavalent)	mg/kg	Grab	Quarterly
Lead	mg/kg	Grab	Quarterly
Mercury	mg/kg	Grab	Quarterly
Molybdenum	mg/kg	Grab	Quarterly
Nickel	mg/kg	Grab	Quarterly
Selenium	mg/kg	Grab	Quarterly

Constituent	Units	Type of Sample	Sampling/Analysis Frequency
Silver	mg/kg	Grab	Quarterly
Zinc	mg/kg	Grab	Quarterly
pH	Standard Units	Grab	Annually
Grease and Oil	mg/kg	Grab	Annually
Priority Pollutants (excluding asbestos)	mg/kg	Grab	Annually

1 - Total sample (including solids and any liquid portion) to be analyzed and results reported as mg/kg based on the dry weight of the sample.

2. Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR 503.32 (unless transferred to another preparer who demonstrates pathogen reduction). Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Significantly/Further Reduce Pathogens "(PFRP), the Discharger shall maintain daily records of the operating parameters to achieve this reduction.

The following applies when biosolids from the Discharger are directly land applied as Class B, without further treatment by a second preparer. If the Discharger demonstrates pathogen reduction by direct testing for fecal coliforms and/or pathogens, samples must be drawn at the frequency in the Amount/Frequency table above. If the Discharger demonstrates Class B pathogen reduction by testing for fecal coliform, at least seven grab samples must be drawn and analyzed during each monitoring event, and a geometric mean calculated from these seven samples. If the Discharger demonstrates Class A pathogen reduction by testing for fecal coliform and/or salmonella, plus one of the PFRP processes or testing for enteric viruses and helminth ova at least four samples of fecal coliform or salmonella must be drawn during each monitoring event. All four samples must meet the limits specified in 40 CFR 503.32(a).

3. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR 503.33(b).
4. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the regional Administrator) and Federal facilities with greater than five MGD influent flow shall sample biosolids for pollutants listed under Section 307(a) of the CWA (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and Federal facilities greater than 5 MGD shall test dioxins/dibenzofurans using a detection limit of less than one pg/g at the time of their next priority pollutant scan if they have not done so within the past five years, and once per five years thereafter.

5. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness. All constituents regulated under CCR Title 22, division 5, chapter 11, article 3 shall be analyzed for comparison with Total Threshold Limit Concentration (TTLC) criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the Soluble Threshold Limit Concentration Limit Concentration (STLC) limit for that substance.
6. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
7. Biosolids placed in a municipal landfill shall be tested by the Paint Filter Liquids Test (EPA Method 9095) at the frequency determined by Table E-12, or more often if necessary to demonstrate that there are no free liquids.
8. The Discharger, either directly or through contractual agreements with their biosolids management contractors, shall comply with the following notification requirements:
  - a. *Notification of non-compliance.* The Discharger shall notify USEPA Region 9, the Regional Water Board, and the Regional Water Board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify USEPA Region 9 and the affected Regional Water Boards of any non-compliance in writing within five working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify USEPA Region 9 and the affected Regional Water Boards of any non-compliance within the same time frames.
  - b. If biosolids are shipped to another state or Indian lands, the Discharger must send notice at least 60 days prior to the shipment to the permitting authorities in the receiving State or Indian land (the USEPA Regional Office for that area and the State/Indian authorities).
  - c. *For land application (in cases where Class B biosolids are directly applied without further treatment):* Prior to reuse of any biosolids from the Discharger's facility to a new or previously unreported site, the Discharger shall notify EPA, the Regional Water Board, and any other affected Regional Water Board. The notification shall include description of the crops or vegetation to be grown, proposed loading rates and determination of agronomic rates.

If any biosolids within a given monitoring period do not meet 40 CFR 503.13 metals concentrations limits, the Discharger (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading to that site to date, as required in 40 CFR 503.12. The Discharger shall notify the applier of all the applier's requirements under 40 CFR 503, including the requirement that the applier certify that the management practices, site restrictions, and any

applicable vector attraction reduction requirements have been met. The Discharger shall require the applier to certify at the end of 38 months following application of Class B biosolids that the harvesting restrictions in effect for up to 38 months have been met.

- d. *For surface disposal:* Prior to disposal to a new or previously unreported site, the Discharger shall notify USEPA and the Regional Water Board. The notice shall include a description and a topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator, site owner, and any State or local permits. The notice shall describe procedures for ensuring public access and grazing restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.
9. The Discharger shall submit an annual biosolids report to the USEPA Region 9 Biosolids Coordinator and Regional Water Board by February 19<sup>th</sup> of each year (per USEPA guidance and 40 C.F.R. 503) for the period covering the previous calendar year. This report shall include:
- a. Annual biosolids removed in dry tons and percent solids.
  - b. If appropriate, a narrative description of biosolids dewatering and other treatment processes, including process parameters, including a schematic diagram showing biosolids handling facilities. For example, if drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.
  - c. A description of disposal methods, including the following information as applicable related to the disposal methods used at the facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.
    - (1) For landfill disposal include: 1) the Regional Water Board WDR numbers that regulate the landfills used, 2) the present classifications of the landfills used, 3) the results of any groundwater monitoring, 4) certifications of management practices, and 5) the names and locations of the facilities receiving biosolids.
    - (2) For land application include: 1) the location of the site(s), 2) the Regional Water Board's WDR numbers that regulate the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), 4) certifications of management practices and site restrictions, and 5) subsequent uses of the land.
    - (3) For offsite application by a licensed hauler and composter include: 1) the name, address and USEPA license number of the hauler and composter.
  - d. Copies of analytical data required by other agencies (i.e. USEPA or county health department) and licensed disposal facilities (i.e. landfill, land application, or composting facility) for the previous year.



- e. Descriptions of pathogen reduction methods and vector attraction reduction methods. Including supporting time and temperature data, and certifications, as required in 40 CFR 503.17 and 503.27.
- f. Names, mailing address, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and amounts delivered to each.
- g. For all biosolids used or disposed at the Discharger's facility, the site and management practice information and certification required in 40 CFR 503.17 and 503.27.
- h. For all biosolids temporarily stored, the information required in 40 CFR 503.20 is required to demonstrate temporary storage.
- i. Reports shall be submitted to:

Regional Biosolids Coordinator  
USEPA (WTR-7)  
75 Hawthorne St.  
San Francisco, CA 94105-3901

Executive Officer  
Central Coast Regional Water Quality Control Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

#### **XIV. OUTFALL AND DIFFUSER INSPECTION**

Annually (October), the Discharger shall conduct an inspection of the sewage outfall pipe/diffuser system to ensure the proper operation and structural integrity of the system (e.g., cracks, breaks, leaks, plugged ports, or other actual or potential malfunctions). The outfall inspection will also check for possible external blockage of ports by sand and/or silt deposition. This inspection shall include general observations and photographic records of the outfall pipe/diffuser system and the surrounding ocean bottom in the vicinity of the outfall/diffuser. The inspection shall be conducted along the outfall pipe/diffuser system from ocean terminus to landfall. A report detailing inspection results shall be submitted to the Regional Water Board and USEPA with the annual report (see "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985). The inspection shall be conducted during a time of good underwater visibility.

#### **XV. PRETREATMENT REQUIREMENTS**

- A. The Discharger shall submit an annual report to the State Water Board and USEPA describing its pretreatment activities over the previous year. In the event that the

Discharger is not in compliance with any conditions or requirements of this permit affected by the pretreatment program, including any noncompliance with pretreatment audit or compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report shall cover operations from January 1<sup>st</sup> through December 31<sup>st</sup> and is due on March 1<sup>st</sup> of each year. The report shall contain, but not be limited to, the following information:

1. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the Discharger's influent and effluent for those pollutants USEPA has identified in Section 307(a) of the CWA. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos.

A summary of analytical results from representative samples of the treatment facility's biosolids shall also be provided. The biosolids analyzed shall be a composite sample of a minimum of twelve discrete sub-samples (grab samples) taken at equal time intervals over a typical dewatering operational period up to 24 hours, and from the last representative point in the solids handling process before disposal (e.g., from drying beds, dewatered biosolids conveyor belt, etc). Biosolids shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. Wastewater and biosolids sampling and analysis shall be performed a minimum of annually and not less than the frequency otherwise specified in this monitoring program. The Discharger shall also provide any influent, effluent, or biosolids monitoring data for non-priority pollutants which the Discharger believes may be causing or contributing to interference, pass-through, or adversely impacting biosolids quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto. Biosolids results shall be expressed in mg/kg dry biosolids.

2. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant which the Discharger knows or suspects was caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with biosolids disposal/reuse requirements.
3. An updated list of the Discharger's significant industrial users (SIUs) including their names and addresses, and a list of deletions, additions, and SIU name changes keyed to the previously submitted list. The Discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations.
4. The Discharger shall characterize the compliance status for each SIU by providing a list or table which includes:
  - a. SIU name;
  - b. Industrial category, if subject to federal categorical standards;
  - c. The type (processes) of wastewater treatment in place;
  - d. Number of samples taken by the Discharger during the year;
  - e. Number of samples taken by the SIU during the year;
  - f. Whether, for facilities which have limits for total toxic organics, all required certifications (if allowed) were provided;
  - g. Standards violated during the year (categorical standards and local limits, reported separately);
  - h. Whether the facility was in Significant Noncompliance (SNC), as defined by 40 CFR 403.12(f)(2)(vii), at any time during the year [SNC is determined at the beginning of each quarter based on data of the previous six (6) months]; and
  - i. A summary of enforcement actions taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions for bringing the SIU into compliance, if known, should be included.
5. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs.
6. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning: the program's administrative structure; local limits; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms, funding levels; or staffing levels.
6. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

7. A summary of public participation activities to involve and inform the public, including a copy of the newspaper notice, if any, required under 40 CFR 403.8.
  8. A description of any changes in biosolids disposal/reuse methods and a discussion of any concerns not described elsewhere in the report.
- B. Semiannual reports.** The Discharger shall submit a semiannual SIU noncompliance status report to EPA Pacific Southwest Region, and the State. The report shall cover the period of January 1 through June 30, and shall be submitted by July 31. The report shall contain:
1. The name and address of all SIUs which violated any discharge or reporting requirements during the report period;
  2. A description of the violations including whether any discharge violations were for categorical standards or local limits;
  3. A description of the enforcement or other actions that were taken to remedy the noncompliance; and
  4. The status of active enforcement and other actions taken in response to SIU noncompliance identified in previous reports.

Reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee if such employee is responsible for overall operation of the POTW. Signed copies of these reports shall be submitted to the USEPA and the State at the following addresses:

California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

State Water Resources Control Board  
Regulation Unit  
P.O. Box 100  
Sacramento, CA 95812-0100

U.S. EPA, Region 9  
Pretreatment Program  
Clean Water Act Compliance Office (WTR-7)  
75 Hawthorne St  
San Francisco, CA 94105-3901

## **XVI. REPORTING REQUIREMENTS**

### **A. General Monitoring and Reporting Requirements**

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

**B. Self Monitoring Reports (SMRs)**

1. The Discharger is not currently submitting Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). At any time during the term of this permit, the State Water Board or Regional Water Board will provide directions for SMR submittal when the CIWQS database is available to receive the discharger's monitoring data.
2. If results of monitoring a constituent appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed, as stated in C.1 of the Standard Provisions and Reporting Requirements.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table E-14. Monitoring Periods and Reporting Schedules**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following month of sampling
X / day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
X / week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling

X / month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
X / quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
X / semiannual period	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 1 February 1
X / year	January 1 following (or on) permit effective date	January 1 through December 31	April 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

- d. Discharger is to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
6. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger, if submitting electronically to CIWQS, is not required to duplicate the submittal of data that is developed in tabular format. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
  - c. According to Section XVI.B.1 of the Monitoring and reporting Program, when available, SMRs must be submitted to the CIWQS Program Web Site and certified as required by the Standard Provisions (Attachment D), to the web address listed below:  
  
<http://www.waterboards.ca.gov/ciwqs/index.html>
  - d. An Annual Self Monitoring Report Summary shall be due on April 1 following each calendar year and shall include:
    - I. All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.
    - II. A discussion of any incident of non-compliance and corrective actions taken.

### **C. Discharge Monitoring Reports (DMRs)**

1. As described in Section XVI.B.1 above, at any time during the term of this permit, the State Water Board or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit discharge-monitoring reports (DMRs) in accordance with the requirements described below.

- DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below and one copy of the DMR to the USEPA listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 <sup>th</sup> Floor Sacramento, CA 95814

U.S. EPA, Region 9  
 ATTN: WTR-7, NPDES/DMR  
 75 Hawthorne Street  
 San Francisco, CA 94105

- All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

**D. Other Reports and Notifications**

Sanitary sewer overflows associated with the Discharger’s collection system are subject to the online reporting and notifications requirements set forth in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems Order No. 2006-0003-DWQ. The Discharger has enrolled under the statewide waste discharge requirements for sanitary sewer systems as stated in Finding II.X. of this Order/Permit. Therefore, all prohibitions, provisions, and monitoring and reporting requirements apply to the Discharger. For any discharges of sewage to a drainage channel or surface water, the Discharger is required to notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the Regional Water Board, within two (2) hours after becoming aware of the discharge. Additionally, within 24-hours the Discharger shall submit to the Regional Water Board certification that the appropriate agencies (i.e., Office of Emergency Services and environmental health) have been notified of the sewage discharge to surface water bodies.

Additionally, any sanitary sewer overflows or wastewater (either partially treated or untreated) that are released at the wastewater treatment plant are subject to the same notifications requirements as mentioned above for collections systems.



**ATTACHMENT F – FACT SHEET**

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**ATTACHMENT F – FACT SHEET**

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

This Order/Permit has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order/Permit that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order/Permit not specifically identified as “not applicable” are fully applicable to this Discharger.

**I. PERMIT INFORMATION**

The following table summarizes administrative information related to the facility.

**Table F-1. Facility Information**

<b>WDID</b>	3 420102001
<b>Discharger</b>	Goleta Sanitary District
<b>Name of Facility</b>	Goleta Sanitary District WWTP
<b>Facility Address</b>	One William Moffett Place
	Goleta, California 93117
	Santa Barbara County
<b>Facility Contact, Title and Phone</b>	Jeff Salt, Operations Manager, 805-967-4519
<b>Authorized Person to Sign and Submit Reports</b>	Jeff Salt, Operations Manager, 805-967-4519
<b>Mailing Address</b>	One William Moffett Place Goleta, California 93117
<b>Billing Address</b>	One William Moffett Place Goleta, California 93117
<b>Type of Facility</b>	Municipal WWTP
<b>Major or Minor Facility</b>	Major
<b>Threat to Water Quality</b>	2
<b>Complexity</b>	A
<b>Pretreatment Program</b>	Yes
<b>Reclamation Requirements</b>	Producer
<b>Facility Permitted Flow</b>	7.64 MGD
<b>Facility Design Flow</b>	9.0 MGD (4.38 MGD Secondary)
<b>Watershed</b>	Goleta Slough
<b>Receiving Water</b>	Pacific Ocean
<b>Receiving Water Type</b>	Ocean waters

- B. The Goleta Sanitary District (hereinafter Discharger) is the owner and operator of the Goleta Sanitary District Wastewater Treatment Plant (hereinafter Facility), a municipal wastewater treatment plant.

For the purposes of this Order/Permit, 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.

- C. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order R3-2004-0129 which was adopted on November 19, 2004 and expired on November 19, 2009. The terms and conditions of the current Order/Permit have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order/Permit.
- D. The Discharger applied for reissuance of its 301(h)-modified permit on May 29, 2009.

## II. FACILITY DESCRIPTION

- A. **Description of Wastewater and Biosolids Treatment.** The treatment plant provides treatment by a split stream process of physical and biological treatment. All wastewater flows through primary sedimentation basins. Approximately 4.38 MGD flows through secondary treatment facilities, including biofiltration, solids-contact, and secondary clarification. Flows above 4.38 MGD receive primary treatment and are blended with secondary-treated wastewater prior to disinfection by chlorination, and then dechlorinated before discharge to the Pacific Ocean.

The Discharger has submitted initial design documents for the facility upgrade. The Discharger will upgrade the plant to a full secondary treatment plant by the end of 2014. The proposed upgraded facility will utilize the existing biofilter and will include a new biofilter, activated sludge aeration basin and two new secondary clarifiers. The facility will be designed to treat all wastewater to secondary effluent standards.

Biosolids are treated in three heated anaerobic digesters. Biosolids from the digesters are discharged into stabilization basins for settling. Once stabilized the biosolids are either sent to drying beds or dewatered through a belt filter press. As part of facility upgrades the Discharger will construct a new solids handling building to house mechanical thickeners, polymer storage, and a screw press to process waste activated sludge.

The collection system is regulated under General Permit 2006-0003-DWQ.

**B. Effluent Characteristics.** According to the most recent annual monitoring report (2008) effluent has the following characteristics.

**Table F-2. Effluent Characteristics for Conventional Parameters**

Parameter	Units	Average Daily Value	Maximum Daily Value
Average Daily Flow	MGD	3.84	5.48
BOD	mg/L	64	148
TSS	mg/L	38	77
Total Chlorine Residual	mg/L	<0.1	<0.1
Total Coliform	MPN/100 mL	104	>16,000
Temperature	°C	23	26
Turbidity	NTU	49	56
pH	s.u.	7.5	7.8
Settleable Solids	mL/L	0.25	0.29
Grease and Oil	mg/L	11	12
Chronic Toxicity	TUc	21.2	
Ammonia ( as N)	mg/L	40	53

The following table provides priority pollutants that were detected in the most recent annual report (2008). For metals, the detected value is the highest concentration detected of the monthly monitoring data from 2008.

**Table F-3. Effluent Characteristics for Priority Pollutants**

Parameter	Units	Detected Value	Violation
Arsenic	µg/L	4.0	No
Chromium	µg/L	2.0	No
Copper	µg/L	46	No
Nickel	µg/L	6.0	No
Zinc	µg/L	60	No
Mercury	µg/L	0.25	No
Lead	µg/L	1.1	No
Acetone	µg/L	110	No
Chloroform	µg/L	5.3	No
Methylene Chloride	µg/L	1.1	No
Tributyltin	ng/L	2.8	No
TCDD, equivalents	pg/L	0.19	No
Bis (2-Ethylhexyl) phthalate	µg/L	6.0	No

**C. Discharge Points and Receiving Waters.** Effluent is discharged to the Pacific Ocean through a 5,912 foot outfall pipe that terminates at a depth of approximately 87 feet below sea level. The diffuser utilizes 36 four inch diameter ports to achieve a minimum initial dilution of 122 parts seawater for every part effluent (122:1).

**D. Compliance Summary**

The following table outlines violations that occurred during the previous permit term. The Discharger regularly submits complete and timely reports of a high technical quality. The Discharger had one effluent limit violation (total coliform) during the permit term. The violation was caused by a broken chlorine feed line that was repaired within 30 minutes. Collection system overflows occurring within the collection system are not discussed here because they are regulated under State Water Board Order No. 2006-0003-DWQ.

**Table F-4. Incidents of Non-Compliance**

Date	Incident
1/31/2005	Failure to report receiving water sampling visual monitoring observations for weather per the required frequency.
2/7/2008	Effluent exceeded total coliform maximum 16,000 MPN/100mL

**E. Receiving Water Quality**

Numerical water quality standards relative to the California Ocean Plan and the Goleta Sanitary District's discharge permit include water clarity, dissolved oxygen (DO), and pH. Averaged and sorted by season, neither surface transparency nor percent light transmittance measurements in the vicinity of the outfall were significantly lower than the control station. In addition, neither pH values nor dissolved oxygen concentrations were lower near the outfall than at the control station, relative to the differences allowed in the Ocean Plan.

Averaged DO values show oxygen within the zone of initial dilution was higher than the control in winter and lower than the control in spring, summer, and fall. The differences were small (0.1% to 2.2%), and well within the Permit limitation of 10%. Similarly, average dissolved oxygen values at stations outside of the zone of initial dilution were higher than the control in winter and lower than the control in spring, summer, and fall. The differences were also well within Permit limitations (0.4% to 3.0%).

Surface transparency and percent light transmittance are measured quarterly at six water quality stations. Water clarity measurements were similar to the control at all stations in winter, summer, and fall. Values were lower for light transmittance and water clarity within the zone of initial dilution during the spring, but were in compliance with the California Ocean Plan.

Average surface transparency ranged from 3.8 m in April to 10.6 m in January for the 11 water column stations over the four sampling surveys. Transparency did not correlate with distance from the outfall nor was it significantly different by t-test among stations located near the outfall compared to stations further away.

Average light transmittance ranged from 73% in April to 86% in January. Comparisons among stations indicated that light transmittance was not influenced by the outfall diffuser.

Constituents monitored in the Goleta effluent and receiving waters have remained below their respective limitations throughout the permit period. Heavy metals are frequently undetectable in the effluent and are consistently within discharge limitations. Pesticides, chlorinated compounds, phenolics, and other associated compounds were always less than the applicable limitations and seldom detected.

Bacteria monitoring at surf-zone stations usually yield more frequent and higher amounts of bacteria than at the nearshore and farshore stations. Bacteria counts at the surfzone stations that exceeded bacterial limitations occurred primarily during the rainy winter months. No exceedences in receiving water samples were attributed to the Goleta Sanitary District's discharge.

The Discharger evaluated the outfalls impact on sediment, benthic infauna, benthic fish, and macroinvertebrates. The Discharger also conducted a bioaccumulation analysis with sanddabs and mussels. All analyses indicate that the discharge does not have a statistically significant impact on the receiving water or the organisms living in the vicinity of the outfall.

## **F. Settlement Agreement**

The Discharger and the Regional Water Board entered into a settlement agreement in November 2004. The settlement agreement includes a ten-year conversion schedule to full secondary treatment. The settlement includes a schedule of agreed upon milestones for the Discharger to complete during the ten-year process. These milestones are included in the settlement agreement and permit findings. The Regional Water Board can enforce the milestones by seeking penalties in an agreed-upon amount, or by asking a court to order the District to meet the schedule.

The settlement agreement stipulates that the Regional Water Board will concur in or issue the First and Second 5-Year Permits in order to effect the District's obligation to complete the upgrade of its treatment facility to full secondary treatment standards within a ten-year period. This permit is the second 5-year permit in the ten year time period. Once the Discharger has converted to secondary treatment of effluent from the Plant, the Regional Water Board expects to issue an NPDES permit imposing effluent limitations based on secondary treatment as defined in 40 C.F.R. Part 133, or any more stringent requirements the Regional Water Board determines are necessary to comply with State or Federal law.

The Discharger is in compliance with all conversion schedule milestones with the exception of the CEQA documentation. Regional Water Board staff received a request on October 20, 2008, from the Discharger to invoke the force majeure provisions of the settlement agreement between the District and the Regional Water Board regarding conversion of the Discharger's wastewater treatment plant to meet secondary treatment standards. The initial CEQA documentation for the plant upgrade indicated that a mitigated negative declaration would satisfy the CEQA process. Since completion of the draft CEQA documents, the initial design process revealed that footings and foundations would extend below the level of existing fill. Due to the presence of archeological sites in the area, the Discharger has to conduct archeological studies and may have to develop an environmental impact report (EIR).

The Discharger submitted a proposed revised conversion schedule on January 30, 2009, to the Regional Water Board. The original settlement agreement conversion schedule required that the Discharger submit final CEQA documentation by January 31, 2009. However, with the additional information regarding potential archeological studies and EIR preparation, the Discharger requested a revision to the settlement agreement conversion table and proposes submitting final CEQA documentation by June 30, 2010. The overall project schedule will not be affected by the delay in CEQA document submittal.

On October 23, 2009, the Regional Water Board held a public meeting to discuss the settlement agreement modification request. The Regional Water Board granted the settlement agreement conversion schedule modification. The Discharger indicated that it is on schedule for the overall project and that the delay in submitting the final CEQA document will not impact the plant upgrade schedule. Ultimately the Discharger finalized the CEQA documentation on September 8, 2009.

### **III. APPLICABLE PLANS, POLICIES, AND REGULATIONS**

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

#### **A. Legal Authorities**

This Order/Permit 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/Permit 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.



**B. California Environmental Quality Act (CEQA)**

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

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

**1. Water Quality Control Plans.** The Regional Water Board adopted the *Water Quality Control Plan, Central Coast Basin* (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. In addition, State Water Resources Control 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. Beneficial uses applicable to Pacific Ocean are as follows:

**Table F-5. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	<ul style="list-style-type: none"> <li>• Water contact recreation (REC-1);</li> <li>• Non-contact water recreation (REC-2);</li> <li>• Industrial service supply (IND);</li> <li>• Navigation (NAV);</li> <li>• Marine habitat (MAR);</li> <li>• Shellfish harvesting (SHELL);</li> <li>• Commercial and sport fishing (COMM);</li> <li>• Rare, threatened, or endangered species (RARE);</li> <li>• Wildlife habitat (WILD).</li> </ul>

Requirements of this Order/Permit implement the Basin Plan.

**2. Secondary Treatment Standards and Clean Water Action Section 301(h).** The 1972 Clean Water Act required publicly owned treatment works to meet treatment standards that were based on performance of wastewater treatment technology available at that time. Clean Water Act Section 301 established a required performance level, referred to as "secondary treatment," that publicly owned treatment works were required to meet by July 1, 1977. The secondary treatment standards, as found in 40 CFR Part 133, are:

**Table F-6. Secondary Standards**

Parameter	30-Day Average	7-Day Average
BOD <sub>5</sub> and TSS	30 mg/L	45 mg/L

Parameter	30-Day Average	7-Day Average
BOD and TSS Removal	At least 85%	--
pH	6 – 9 at all times	

Due to the extensive volume of the ocean relative to inland water bodies, dilution of wastewater discharges to the ocean is generally much greater than discharges to inland water bodies. Most major ocean discharges in the Central Coast Region achieve initial dilution of greater than 100 parts seawater for every part effluent. On the contrary, most inland discharges in the Central Coast Region are to water bodies with little or no natural flow, therefore little or no dilution occurs. Although effluent BOD<sub>5</sub> and TSS values for a typical ocean discharge may exceed secondary treatment standards, the final concentration of these pollutants in the receiving water will be far less than a typical inland surface water discharge that meets secondary treatment standards. This dilution effect is the primary basis for the modification of secondary treatment standards provided in Clean Water Act Section 301(h). However, the direction of our laws, regulations, and policies is steadily toward reducing the discharge of pollution to the environment, not justifying pollutant loading with dilution. There are several additional factors that must be considered before approving a 301(h)-modified permit, as noted below.

Clean Water Act Section 301(h) provides for a modification of secondary treatment standards for publicly owned treatment works that discharge into marine waters if the modified requirements do not interfere with the attainment or maintenance of water quality. USEPA has promulgated specific regulations pertaining to Clean Water Act Section 301(h) in 40 CFR, Part 125, Subpart G.

In order to obtain a 301(h)-modified permit, an applicant must demonstrate that:

- There is an applicable water quality standard specific to the pollutant for which the modification is requested (usually BOD<sub>5</sub> and TSS);
- The discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;
- The applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;

- Such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- All applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- In the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;
- To the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
- There will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- The applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 304(a)(1) [of the Clean Water Act] after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged. (40 CFR Part 125.57)

USEPA's Tentative Decision Document dated January 19, 2010, evaluates the Discharger's compliance with each of these nine criteria. USEPA's tentative decision is that the Discharger meets each of the above criteria and the Permit is eligible for reissuance.

3. **California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005 and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

**Table F-7. Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Uses
Outfall 001	Pacific Ocean	<ul style="list-style-type: none"> <li>• Industrial Water Supply (IND)</li> <li>• Water Contact and Non-Contact Recreation, including Aesthetic Enjoyment (REC)</li> <li>• Navigation (NAV)</li> <li>• Commercial and Sport Fishing (COMM)</li> <li>• Mariculture (MARI)</li> <li>• Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS)</li> <li>• Rare and Endangered Species (RARE)</li> <li>• Marine Habitat (MAR)</li> <li>• Fish Migration (MIGR)</li> <li>• Fish Spawning and Shellfish Harvesting (SPWN)</li> </ul>

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order/Permit implement the Ocean Plan.

4. **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.
5. **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 water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16. The permit does not allow any new or increased discharges compared to the previous permit. The Permit does not permit any degradation of receiving waters.
6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §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. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order/Permit.
7. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires all NPDES permits to 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 (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

The Discharger's monitoring program for this permit is thorough, covering the treatment process, receiving waters, seafloor sediment, and marine life. Influent and effluent quality and quantity are routinely monitored to evaluate treatment process efficiency. Effluent is regularly monitored for conventional pollutants (e.g. TSS, pH), as well as whole effluent toxicity and priority pollutants (e.g. arsenic, benzene, halomethanes, etc.).

Receiving water monitoring includes both surf zone monitoring, near shore monitoring, and ocean monitoring near the discharge. The discharge is approximately 5,912 feet offshore. Surf zone monitoring includes grab samples taken on a weekly basis at seven monitoring stations. Samples are analyzed for total coliform, fecal coliform, and enterococcus organisms to assess conditions for water contact recreation and shellfish harvesting.

Ocean monitoring stations are located between the diffuser and the shoreline and around the outfall diffuser to assess the short- and long-term impacts of the discharge on the receiving water, benthic sediment, and biota in the vicinity of the discharge. Ocean monitoring evaluates the local discharge effects within the immediate vicinity of the outfall diffuser and compares conditions there with those at control sites up-coast and down-coast of the outfall. In addition to general visual observations of weather and water quality, the Discharger samples for bacteria and water column variables including dissolved oxygen, pH, salinity, temperature, density, and light transmittance.

Sediment monitoring is conducted annually in October at nine stations surrounding the discharge, to assess the temporal (i.e. changes over time) and spatial (i.e. changes in distance from the outfall) occurrence of pollutants in sediment, and physical and chemical quality of the sediments. Parameters that are measured include sediment particle size, sulfides, heavy metals, and persistent organic pollutants (e.g. DDT).

Bottom-dwelling (or "benthic") organisms are monitored annually in October at the same monitoring stations where sediment monitoring occurs. Benthic community health is represented by indices of density, diversity, trophic index, species, dominance, and richness. Statistical evaluations of these indices are used to assess any changes over time or in distance from the outfall.

Duplicate trawls (towing a net along the bottom) are performed annually at two stations to sample benthic fish and macroinvertebrates. The catch is examined and all fish and macroinvertebrates are identified, counted, measured, and weighed. One station is located near the diffuser and the other is a control located 3,000 meters east of the diffuser. Collected data are analyzed and statistical analyses are performed to compare the two stations.

Biosolids are sampled quarterly and results are submitted in an annual biosolids report as required by 40 CFR Part 503 Regulations.

#### **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.

## A. Discharge Prohibitions

1. Discharge Prohibition III.A. (Discharge to the Pacific Ocean at a location other than as described by this Order/Permit at 34°, 24', 06" N. Latitude, 119°, 49', 27" W. Longitude is prohibited.) This prohibition is retained from the previous permit.
2. Discharge Prohibition III.B. (Discharges of any waste in any manner other than as described by this Order/Permit are prohibited.) Because limitations and conditions of the Order/Permit have been prepared based on specific information provided by the Discharger and specific wastes described by the Discharger, the limitations and conditions of the Order/Permit do not adequately address waste streams not contemplated during drafting of the Order/Permit. To prevent the discharge of such waste streams that may be inadequately regulated, the Order/Permit prohibits the discharge of any waste that was not described by the Regional Water Board during the process of permit reissuance.
3. Discharge Prohibition III.C. (The average dry weather monthly rate of discharge to the Pacific Ocean shall not exceed 7.64 MGD.) This flow limitation is retained from the previous permit.
4. Discharge Prohibition III.D. (The discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited.) This prohibition restates a discharge prohibition established in Chapter III.H of the Ocean Plan.
5. Discharge Prohibition III.E. (Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited.) This prohibition restates a discharge prohibition established in Chapter III.H of the Ocean Plan.
6. Discharge Prohibition III.F. (The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G (Bypass), is prohibited.) The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 CFR 122.41 (m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and therefore, is explicitly prohibited by the Order/Permit.

## B. Technology-Based Effluent Limitations

CWA Section 301 (b) and USEPA's NPDES regulations at Title 40 of the Code of Federal Regulations (40 CFR) 122.44 require that permits include, at a minimum, conditions

meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges to surface waters must meet minimum federal technology-based requirements based on secondary treatment standards established at 40 CFR Part 133 and best professional judgment (BPJ) in accordance with 40 CFR 125.3. However, due to the provisions set forth in 40 CFR Part 125.57 discharges authorized by this Order/Permit are subject to modified secondary standards.

CWA section 301(h) provides that an NPDES permit which modifies federal secondary treatment requirements may be issued if the applicant: 1) discharges into oceanic or saline, well-mixed estuarine waters, and 2) demonstrates, to the satisfaction of the Administrator, that the modifications will meet those requirements specified in section 301(h). Modified Waste Discharge Requirements Order No. R3-2004-0129 and NPDES Permit No. CA0048160, waiving secondary treatment requirements, were issued to the Discharger on November 19, 2004. The Discharger applied for reissuance of its 301(h) variance on May 29, 2009. Section 303 of the Water Quality Act of 1987 amended section 301(h); the Discharger's application for reissuance was reviewed under the criteria specified by the 1987 amendments.

The State of California administers an approved NPDES permit program, and issues orders for discharges to waters within state jurisdiction. Authority to grant a variance and issue a modified NPDES permit under section 301(h) of the Act is, however, limited to EPA's Regional Administrator. State concurrence on the issuance of a modified permit is required by section 301(h) of the Act. The Regional Water Board will consider issuance of waste discharge requirements for the Goleta treatment plant under the authority of the California Water Code. If the Regional Water Board adopts the proposed waste discharge requirements, this will constitute concurrence by the state regarding the issuance of a 301(h) modified NPDES permit.

CWA section 301(h) conditionally waives the requirement for municipal wastewater treatment plants to comply with secondary standards before discharging wastewater to the ocean. Secondary standards may be waived for biochemical oxygen demand (BOD), total suspended solids (TSS), and pH. In accordance with federal regulations (40 CFR 125.57), as a condition of the waiver, the discharge must not interfere with the attainment or maintenance of that water quality which assures the protection and propagation of a balanced, indigenous population of fish, shellfish and other wildlife. To demonstrate a balanced population is present, the Discharger must monitor a representative sample of indigenous organisms. In addition, the Discharger must establish and enforce a pretreatment program to control industrial wastes and toxic wastes from industrial and nonindustrial sources.

The 301(h) waiver requires the Discharger to provide at least primary or equivalent treatment to the wastewater before discharging it to the Pacific Ocean. That is, the Discharger must remove from the influent stream, as a 30-day average, at least 30% of the BOD and 75% of the TSS before discharging the treated wastewater to the Pacific Ocean. For the year 2008, which is representative of plant efficiency in past years, an average of 76% of BOD and 85% of suspended solids were removed. In addition, the effluent also



consistently achieves the minimum of 75% suspended solids removal rate required by the California Ocean Plan. During the year 2008, monthly average effluent suspended solids ranged from 32 mg/L to 50 mg/L and removal ranged from 83% to 87%, easily satisfying the primary or equivalent treatment requirement.

BOD removals also met primary or equivalent treatment requirements. BOD removal ranged from 68% to 81% during the year. Effluent BOD concentrations ranged from 48 mg/L to 83 mg/L, well within the monthly 30-day average limit of 98 mg/L. Removal rates were stable over the last five year permit period and are expected to remain stable over the next five years.

## **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.

Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established in accordance with the requirements of 40 CFR 122.44 (d) (1) (vi), 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.

The process for determining "reasonable potential" and calculating WQBELs, when necessary, is intended to protect the designated uses of receiving waters as specified in the Basin and Ocean Plans, and achieve applicable water quality objectives and criteria that are contained in the Basin Plan and in other applicable State and federal rules, plans, and policies, including applicable water quality criteria from the Ocean Plan.

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

Beneficial uses for ocean waters of the Central Coast Region are established by the Basin Plan and Ocean Plan and are described by sections II.H and II.I of the Order/Permit.

Water quality criteria applicable to ocean waters of the Region are established by the Ocean Plan, which includes water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The water quality objectives from the Ocean Plan are incorporated as receiving water limitations into this Order/Permit. In addition, Table B of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations

at 40 CFR 122.44 (d) (1), and in accordance with procedures established by the Ocean Plan (2005), the Regional Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table B toxic pollutants.

### 3. Determining the Need for WQBELs

Procedures for performing a Reasonable Potential Analysis (RPA) for ocean dischargers are described in section III.C. and Appendix VI of the Ocean Plan. In general, the procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set, and compares the 95<sup>th</sup> percentile concentration at 95 percent confidence of each Table B pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of the three following endpoints.

Endpoint 1 – There is “reasonable potential.” An effluent limitation must be developed for the pollutant. Effluent monitoring for the pollutant, consistent with the monitoring frequency in Appendix III [Ocean Plan], is required.

Endpoint 2 - There is no “reasonable potential.” An effluent limitation is not required for the pollutant. Appendix III [Ocean Plan] effluent monitoring is not required for the pollutant; the Regional Board, however, may require occasional monitoring for the pollutant or for whole effluent toxicity, as appropriate.

Endpoint 3 - The RPA is inconclusive. Monitoring for the pollutant or whole effluent toxicity testing, consistent with the monitoring frequency in Appendix III [Ocean Plan], is required. Existing effluent limitations shall remain in the permit; or if the previous permit did not include limitations, the permit must include a reopener clause to allow for subsequent modification of the permit to include effluent limitations if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to excursions above Table B water quality objectives.

The State Water Resources Control Board has developed a reasonable potential calculator, which is available at

<http://www.waterboards.ca.gov/plnspols/docs/oplans/rpcalc.zip>. The calculator (RPcalc 2.0) was used in the development of this Order/Permit and considers several pathways in the determination of reasonable potential.

#### a. First Path

If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Regional Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303 (d) status of the receiving water, or the presence of threatened or endangered species or their critical habitat, or other information.

b. Second Path

If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

c. Third Path

If the effluent data contains 3 or more detected and quantified values (i.e., values that are at or above the ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95<sup>th</sup> percentile concentration is determined at 95 percent confidence for each pollutant, and compared to the most stringent applicable water quality objective to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed lognormally. If the 95<sup>th</sup> percentile value is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

d. Fourth Path

If the effluent data contains 3 or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a non-parametric or parametric RPA is conducted according to the following steps.

- i. If the number of censored values (those expressed as a "less than" value) account for less than 80 percent of the total number of effluent values, calculate the  $M_L$  (the mean of the natural log of transformed data) and  $S_L$  (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.
- ii. If the number of censored values account for 80 percent or more of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution.)

e. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than 3 detected and quantified values, or when the effluent data set contains 3 or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective, and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the water quality objective. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limits in the expiring permit are retained.

Here, an RPA was conducted using effluent monitoring data generated in several monitoring events between 2004 and 2008. The RPA endpoint for each Table B pollutant is identified in the tables below. Where Endpoint 1 resulted, reasonable potential to exceed water quality objectives has been determined and effluent limitations must be established in the Order/Permit.

Where Endpoint 2 resulted, reasonable potential does not exist. Arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc, chloroform, and ammonia resulted in Endpoint 2. However, the pollutant loading to publicly owned, domestic wastewater treatment facilities varies greatly with residential, commercial, and industrial wastewater sources. These sources have the potential to discharge pollutants to the wastewater treatment facility at levels that may cause, have reasonable potential to cause, or contribute to an excursion above effluent limitations (and therefore above state water quality objectives/standards). Based on the inherent variability of such wastewater, applicable limitations for all Table B constituents established in Order R3-2004-0129 are retained in this Permit.

As shown in the following table, the RPA frequently leads to Endpoint 3, which as described previously is an inconclusive result. Following a finding of Endpoint 3, existing effluent limitations are retained by the Order/Permit; or if the previous Order/Permit did not include limitations, a reopener clause must be established by the proposed Order/Permit to allow for inclusion of effluent limitations at a later time if monitoring establishes that the discharge causes, has the reasonable potential to cause or contribute to excursions above Table B water quality objectives.

**Table F-8. Ocean Plan RPA Results**

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
<b>Objectives For Protection of Marine Aquatic Life</b>					

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
Antimony	4	0.001	1200	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1200.
Arsenic	63	0.005	8	2	Non-Parametric RPA found 63 conclusive non-exceedances of the WQO of 8.
Beryllium	4	<0.2	0.033	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.033.
Cadmium	63	<0.2	1	2	Non-Parametric RPA found 63 conclusive non-exceedances of the WQO of 1.
Chromium	63	10	2	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 0.0627 does not exceed the Co of 2.
Copper	63	62	3	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 2.3395 does exceed the Co of 3.
Lead	61	4	2	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 0.0180 does not exceed the Co of 2.
Mercury	63	0.25	0.04	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 0.0017 does not exceed the Co of 0.04.
Nickel	63	17	5	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 0.0941 does not exceed the Co of 5.
Selenium	3	ND	15	3	No detection value given - RPA is inconclusive
Silver	63	3	0.7	2	Non-Parametric RPA found 63 conclusive non-exceedances of the WQO of 0.7.
Thallium	3	ND	2	3	No detection value given - RPA is inconclusive
Zinc	63	160	20	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 8.8147 does not exceed the Co of 20.
Cyanide	4	<5	1	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1.

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
Acrolein	4	<5	220	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 220.
Acrylonitrile	4	<2	0.1	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.1.
Benzene	4	<5	5.9	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 5.9
Carbon Tetrachloride	4	<0.5	0.9	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.9.
Chlorobenzene	4	<0.5	570	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.9.
Chlorodibromomethane	4	<0.5	8.6	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 8.6.
Chloroform	4	5.6	130	2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 0.0642 does not exceed the Co of 130.
Bromodichloromethane	4	0.6	6.2	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 6.2.
1,2-Dichloroethane	4	<0.5	28	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 28.
1,1-Dichloroethene	4	<0.5	0.9	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.9.
cis-1,3-Dichloropropene	4	<0.5	8.9	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 8.9.
Ethylbenzene	4	<0.5	4100	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 4100.
1,1,2,2-tetrachloroethane	4	<0.5	2.3	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.3.

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
Tetrachloroethene	4	<0.5	2	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.
Toluene	4	0.6	0.0049	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 85000.
1,1,1-Trichloroethane	4	<0.5	540000	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 540000.
1,1,2-Trichloroethane	4	<0.5	9.4	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 9.4
Trichloroethene	4	<0.5	27	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 27.
Vinyl chloride	4	<0.5	36	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 36.
2-Methyl,-4,6-dinitrophenol	4	<500	220	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 220.
2,4-Dinitrophenol	4	<500	4	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 4.
2,4,6-Trichlorophenol	4	<100	0.29	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.29.
Benzidine	4	<500	0.000069	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000069.
bis(2-Chloroethoxy)methane	4	<100	4.4	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 4.4
bis(2-chloroethyl) ether	4	<100	0.045	3	Non-Parametric RPA found 1 conclusive non-exceedances of the WQO of 0.045
Bis-(2-chloroisopropyl) ether	4	<100	1200	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1200.

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
Bis-(2-ethylhexyl) phthalate	4	6	3.5	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 3.5.
Dichlorobenzenes	4	<10	5100	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 5100.
1,4-Dichlorobenzene	4	0.6	18	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 18.
3,3-Dichlorobenzidine	4	<200	0.0081	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.0081.
Diethyl phthalate	4	1	33000	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 33000.
Dimethyl phthalate	4	<100	820000	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 820000
Di-N-butyl phthalate	4	<100	3500	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 3500.
2,4-Dinitrotoluene	4	<100	2.6	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.6.
1,2-Diphenylhydrazine	4	<500	0.16	3	Non-Parametric RPA found 1 conclusive non-exceedances of the WQO of 0.16.
Fluoranthene	4	<1	15	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 15.
Hexachlorobenzene	4	<100	0.00021	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Hexachlorobutadiene	4	<100	14	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 14.
Hexachlorocyclopentadiene	4	<100	58	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 58.



Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
Hexachloroethane	4	<100	2.5	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.5.
Isophorone	4	<100	730	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 730.
Nitrobenzene	4	<100	4.9	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 4.9.
N-nitrosodimethylamine	4	10	7.3	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 7.3.
N-nitrosodi-n-propylamine	4	<200	0.38	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.38.
N-nitrosodiphenylamine	4	<100	2.5	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 2.5.
Aldrin	4	<0.05	0.000022	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000022.
Chlordane total	4	<0.05	0.000023	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000023.
DDT	4	<0.05	0.00017	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00017.
Dieldrin	4	<0.05	0.00004	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00004.
Endosulfan sum	4	<0.05	0.009	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.009.
Endrin	4	<0.05	0.002	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.002.
Heptachlor	4	<0.05	0.00005	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00005.
Heptachlor epoxide	4	<0.05	0.00002	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00002.
PCB Sum	4	<0.05	0.000019	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000019.

Parameter	n <sup>[1]</sup>	MEC (µg/l) <sup>[2]</sup>	WQO (µg/l) <sup>[3]</sup>	RP end point	Rationale
PAHs	3	ND	0.0088	3	No detection value given - RPA is inconclusive
HCH	3	ND	0.004	3	No detection value given - RPA is inconclusive
Toxaphene	4	<2	0.00021	3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Halomethanes	7	<0.5	130	3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 130.
Total Chlorine Residual	63	1300	2	1	Detected observation(s) after complete mixing of 2.43902439, 2.43902439, 3.25203252, 4.06504065, 4.06504065, 4.87804878, 4.87804878, 10.5691057, exceed the Co of 2.
TCDD	3	1.90E-07	3.90E-09	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 3.90E-09.
Total Non-Chlorinated Phenol	3	100	30	3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 30.
Total Chlorinated Phenol	3	ND		3	No detection value given - RPA is inconclusive
Ammonia (expressed as nitrogen)	63	57600	600	2	Parametric RPA found the LogNormal UCB(.95,.95,63) of 423.3549 does not exceed the Co of 600.

<sup>[1]</sup> Number of data points available from 2004 through 2008.

<sup>[2]</sup> Maximum effluent concentration.

<sup>[3]</sup> Most stringent water quality objective.

#### 4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Regional Water Board is establishing WQBELs for all Table B pollutants.

As described by section III.C of the Ocean Plan, effluent limits for Table B pollutants are calculated according to the following equation.

$$C_e = C_o + D_m (C_o - C_s)$$

Where ...

Ce = the effluent limitation ( $\mu\text{g/L}$ )

Co = the concentration (the water quality objective) to be met at the completion of initial dilution ( $\mu\text{g/L}$ ).

Cs = background seawater concentration ( $\mu\text{g/L}$ )

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 122)

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. As site-specific water quality data is not available, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following.

**Table F-9. Background Concentrations—Ocean Plan**

Pollutant	Background Seawater Concentration
Arsenic	3 $\mu\text{g/L}$
Copper	2 $\mu\text{g/L}$
Mercury	0.0005 $\mu\text{g/L}$
Silver	0.16 $\mu\text{g/L}$
Zinc	8 $\mu\text{g/L}$

Effluent limitations for the Table B pollutants are presented in section IV.A.1. of this Order/Permit.

## 5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion 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 growth.

Based on the RPA, Regional Water Board staff have determined that treated wastewater from the Wastewater Treatment Plant has a reasonable potential to cause or contribute to acute and chronic toxicity. Acute and chronic toxicity effluent limitations have been established in the Order/Permit.

The Discharger must also maintain a Toxicity Reduction Evaluation (TRE) Workplan, as described in section VI.C.2.a of the Order/Permit, which describes the steps that

the Discharger intends to follow in the event that acute and/or chronic toxicity limitations are exceeded. When monitoring measures WET in the effluent above the limitations established by the Order/Permit, the Discharger must resample, if the discharge is continuing, and retest. The Executive Officer will then determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE or to implement other measures.

#### **D. Final Effluent Limitations**

Final, technology-based and water quality-based effluent limitations established by the Order/Permit are discussed in the preceding sections of the Fact Sheet.

##### **1. Satisfaction of Anti-Backsliding Requirements**

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 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.

All effluent limitations in this Order/Permit are at least as stringent as the effluent limitations in the previous Order/Permit and are consistent with State and federal anti-backsliding requirements.

##### **2. Satisfaction of Antidegradation Policy**

The provisions of this Order/Permit are consistent with the previous Order/Permit and are consistent with applicable antidegradation policy expressed by NPDES regulations at 40 CFR 131.12 and by State Water Board Resolution No. 68-16. No changes due to the issuing of this permit are expected to result in decreased water quality in the receiving water.

##### **3. Stringency of Requirements for Individual Pollutants**

This Order/Permit contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD<sub>5</sub>, TSS, settleable solids, turbidity, oil and grease, and pH. Restrictions on these pollutants are discussed in section IV of the Fact Sheet. This Order/Permit's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order/Permit contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

Final, technology and water quality based effluent limitations are summarized in sections IV of this Fact Sheet.

**4. Summary of Final Effluent Limitations – Discharge Point No. 001**

- a. The following technology-based effluent limitations are applicable to the discharge of secondary treated wastewater from the POTW.

**Table F-10. Effluent Limitations for BOD and TSS**

Constituent	Units	Average Monthly	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	98	150
	lbs/day <sup>1</sup>	6,240	9,560
Total Suspended Solids	mg/L	63	100
	lbs/day <sup>1</sup>	4,010	6,370

**Table F-11. Effluent Limitations for Major Wastewater Constituents**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
	lbs/day <sup>1</sup>	1,590	2,550	4,780
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	Within limits of 6.0 to 9.0 at all times		

- b. The following water quality-based effluent limitations are applicable to the final effluent discharged from the Facility.

**Table F-12. Effluent Limitations for the Protection of Marine Aquatic Life<sup>2</sup>**

Parameter	Units	Effluent Limitations		
		6-Month Median	Maximum Daily	Instantaneous Maximum
Arsenic	µg/L	618	3,570	9,474
Cadmium	µg/L	123	492	1,230
Chromium (Hex) <sup>3</sup>	µg/L	246	987	2,460
Copper	µg/L	125	1,232	3,446
Lead	µg/L	246	987	2,460
Mercury	µg/L	4.9	20	49
Nickel	µg/L	615	2,460	6,150
Selenium	µg/L	1,845	7,348	18,450

<sup>1</sup> Mass emission rates are based on the annual monthly average design flow of 7.64 MGD.

<sup>2</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

<sup>3</sup> The Discharger may at its option meet this limitation as a Total Chromium limitation.

Parameter	Units	Effluent Limitations		
		6-Month Median	Maximum Daily	Instantaneous Maximum
Silver	µg/L	67	325	841
Zinc	µg/L	1,484	8,864	23,624
Cyanide	µg/L	123	492	1,230
Total Chlorine Residual	µg/L	246	984	7,380
Ammonia (as N)	mg/L	73.8	295.2	738
Acute toxicity	TUa	N/A	4.0	N/A
Chronic Toxicity	TUc	N/A	123	N/A
Phenolic Compounds (non-chlorinated)	mg/L	3.69	14.76	36.9
Chlorinated Phenolics	µg/L	123	492	1,230
Endosulfan <sup>4</sup>	µg/L	1.107	2.214	3.321
Endrin	µg/L	0.246	0.492	0.738
HCH <sup>5</sup>	µg/L	0.492	0.984	1.476
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			

**Table F-13. Effluent Limitations for Protection of Human Health – Non-Carcinogens<sup>6</sup>**

Parameter	Units	Effluent Limitations
		Average Monthly
Acrolein	mg/L	27.06
Antimony	mg/L	147.6
bis(2-chloroethoxy) methane	µg/L	541.2
bis(2-chloroisopropyl) ether	mg/L	147.6
Chlorobenzene	mg/L	70.11
chromium (III)	mg/L	23,370
di-n-butyl phthalate	mg/L	430.5
Dichlorobenzenes	mg/L	627.3

<sup>4</sup> ENDOSULFAN shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

<sup>5</sup> HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

<sup>6</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

Parameter	Units	Effluent Limitations
		Average Monthly
diethyl phthalate	mg/L	4,059
dimethyl phthalate	g/L	100.86
4,6-dinitro-2-methylphenol	mg/L	27.06
2,4-dinitrophenol	mg/L	0.492
Ethylbenzene	mg/L	504.3
Fluoranthene	mg/L	1.845
Hexachlorocyclopentadiene	mg/L	7.134
Nitrobenzene	mg/L	0.6027
Thallium	mg/L	0.246
Toluene	g/L	10.45
Tributyltin	µg/L	0.172
1,1,1-trichloroethane	g/L	66.42

Table F-14. Effluent Limitations for Protection of Human Health – Carcinogens<sup>7</sup>

Parameter	Units	Effluent Limitations
		Average Monthly
Acrylonitrile	µg/L	12.3
Aldrin	µg/L	0.0027
Benzene	µg/L	725.7
Benzidine	µg/L	0.0085
beryllium	µg/L	4.059
bis(2-chloroethyl) ether	µg/L	5.535
bis(2-ethylhexyl) phthalate	µg/L	430.5
carbon tetrachloride	µg/L	110.7
Chlordane <sup>8</sup>	µg/L	0.0028
chlorodibromomethane	mg/L	1.057
chloroform	mg/L	15.99
DDT <sup>9</sup>	µg/L	0.02091
1,4-dichlorobenzene	mg/L	2.214
3,3'-dichlorobenzidine	µg/L	0.9963
1,2-dichloroethane	mg/L	3.444
1,1-dichloroethylene	µg/L	110.7
dichlorobromomethane	µg/L	762.6
dichloromethane	mg/L	55.35
1,3-dichloropropene	mg/L	1.094
dieldrin	µg/L	0.00492

<sup>7</sup> Based on Ocean Plan, Chapter II, Table B toxic materials objectives and a calculated critical initial dilution of 122:1. If actual dilution is found to be less than 122:1, these limitations will be recalculated.

<sup>8</sup> CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

<sup>9</sup> DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

Parameter	Units	Effluent Limitations
		Average Monthly
2,4-dinitrotoluene	µg/L	319.8
1,2-diphenylhydrazine	µg/L	19.68
halomethanes	mg/L	15.99
Heptachlor <sup>10</sup>	µg/L	0.00615
Heptachlor epoxide	µg/L	0.00246
hexachlorobenzene	µg/L	0.02583
hexachlorobutadiene	mg/L	1.722
hexachloroethane	µg/L	307.5
Isophorone	mg/L	89.79
N-nitrosodimethylamine	µg/L	897.9
N-nitrosodi-N-propylamine	µg/L	46.74
N-nitrosodiphenylamine	µg/L	307.5
PAHs <sup>11</sup>	µg/L	1.0824
PCBs <sup>12</sup>	µg/L	0.0023
TCDD equivalents <sup>13</sup>	pg/L	0.48
1,1,2,2-tetrachloroethane	µg/L	282.9
tetrachloroethylene	µg/L	246
toxaphene	µg/L	0.026
trichloroethylene	mg/L	3.321
1,1,2-trichloroethane	mg/L	1.156
2,4,6-trichlorophenol	µg/L	36.67
vinyl chloride	mg/L	4.428

<sup>10</sup> HEPTACHLOR formerly meant the sum of heptachlor and heptachlor epoxide. Each specie is now listed separately.

<sup>11</sup> PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

<sup>12</sup> PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

<sup>13</sup> TCDD EQUIVALENTS shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001



**E. Interim Effluent Limitations – Not Applicable****F. Land Discharge Specifications – Not Applicable****G. Reclamation Specifications**

The Discharger shall comply with Waste Discharge Requirements Order No. 91-03 for reclaimed water production. The Order/Permit does not address use of reclaimed wastewater except to require compliance with applicable State and local requirements regarding the production and use of reclaimed wastewater, including those requirements established by the California Department of Public Health at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Criteria. The Goleta Water District, as the primary user of reclaimed water, is responsible for the distribution and use of reclaimed water to the general public under Order No 91-04.

**V. RATIONALE FOR RECEIVING WATER LIMITATIONS****A. Surface Water**

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order/Permit considers these factors and is designed to minimize the influence of the discharge on the receiving water. Receiving water limitations within the proposed Order/Permit generally include the receiving water limitations of the previous Order/Permit; however these limitations have been supplemented and modified to reflect all applicable, general water quality objectives of the Ocean Plan (2005). In particular, receiving water limitations for bacteria have been modified to accurately reflect the updated Ocean Plan.

**B. Groundwater – Not Applicable****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/Permit, 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**

In addition to influent flow monitoring, monitoring for BOD<sub>5</sub> and TSS is required to determine compliance with the Order/Permit's percent removal requirement for those pollutants. Influent monitoring has been carried over from the previous Monitoring and Reporting Program.

**B. Effluent Monitoring**

Effluent monitoring requirements for Discharge Point No. 001 have been established and are intended to evaluate compliance with technology-based effluent limitations and water quality-based effluent limitations for the POTW effluent.

**C. Whole Effluent Toxicity Testing Requirements**

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period, and chronic toxicity testing is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. This Order/Permit retains limitations and monitoring requirements for acute and chronic toxicity for Discharge Point No. 001 from the existing Order/Permit.

**D. Receiving Water Monitoring****1. Surface Water**

Surf zone monitoring, nearshore monitoring, and offshore monitoring of the receiving water have been carried over from Order No. R3-2004-0129. Receiving water monitoring is necessary to evaluate compliance with water quality objectives contained in the Ocean Plan, and for the protection of human health.

**E. Other Monitoring Requirements****1. Biosolids/Sludge Monitoring.**

Biosolids monitoring is required in this Order/Permit. The requirements are retained from the previous Order/Permit.

**2. Benthic Sediment, Biota, Monitoring and Chemical Analysis**

Benthic sediment and biota monitoring, and chemical analysis monitoring requirements have been carried over from Order No. R3-2004-0129.

**3. Pretreatment Monitoring.**

Pretreatment monitoring requirements have been carried over from Order No. R3-2004-0129. These requirements are authorized under 40 CFR Part 403.8.

**4. Outfall Inspection.**

The Order/Permit retains the requirement of the previous permit to conduct annual visual inspections of the outfall and diffuser system and provide a report of this inspection to the Regional Water Board regarding the system's physical integrity.

## 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 to the Order/Permit.

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/Permit. 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/Permit 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/Permit incorporates by reference Water Code section 13387(e).

### B. Special Provisions

#### 1. Reopener Provisions

The Order/Permit may be modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include appropriate conditions or limits based on newly available information, or to implement any, new State water quality objectives that are approved by the USEPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order/Permit will be reopened to incorporate such limitations.

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

**Toxicity Reduction Requirements** - The requirement to perform a Toxicity Reduction Evaluation if the Acute or Chronic Toxicity limit is exceeded is retained from Order No. R3-2004-0129. When toxicity monitoring measures acute or chronic toxicity in the effluent above the limitation established by the Order/Permit, the Discharger is required to resample and retest, if the discharge is continuing. When all monitoring results are available, the Executive Officer can determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation (TRE) requirements, or whether other measures are warranted.

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

**Pollutant Minimization Program** - The 2005 Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order/Permit no known evidence was available that would require the

Discharger to immediately develop and conduct a PMP. The Regional Water Board will notify the Discharger in writing if such a program becomes necessary. The 2005 Ocean Plan PMP language is included to provide guidance in the event that a PMP must be developed and implemented by the Discharger

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

This section of the standardized permit template is not applicable.

#### **5. Special Provisions for Municipal Facilities (POTWs Only)**

##### **a. Biosolids Management**

Provisions regarding sludge handling and disposal ensure that such activity will comply with all applicable regulations.

40 CFR Part 503 sets forth USEPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment.

USEPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not the Regional Water Board, will oversee compliance with 40 CFR Part 503.

40 CFR Part 503.4 (Relationship to other regulations) states that the disposal of sewage sludge in a municipal solid waste landfill unit, as defined in 40 CFR 258.2, that complies with the requirements in 40 CFR part 258 constitutes compliance with section 405 (d) of the CWA. Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit must ensure that the sewage sludge meets the applicable requirements of 40 CFR Part 503.

##### **b. Pretreatment**

Pretreatment requirements for POTWs are contained within 40 CFR Part 403. Per 40 CFR Part 403.8, any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards will be required to establish a POTW pretreatment program unless the NPDES State exercises its option to assume local responsibilities as provided for in §403.10(e). The Executive Officer may require that a POTW with a design flow of 5 MDG or less develop a POTW pretreatment program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or

other circumstances warrant in order to prevent interference with the POTW or pass through as defined in 40 CFR Part 403.3.

The Order/Permit retains pretreatment requirements as the Facility has total effluent flows in excess of 5 MGD and a number of significant industrial users.

## 6. Other Special Provisions

### a. Discharges of Storm Water

Discharges of storm water from POTWs with a design capacity greater than 1.0 MGD are applicable for coverage under General State Water Board Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Dischargers of Storm Water Associated with Industrial Activities Excluding Construction Activities*.

### b. Sanitary Sewer System Requirements

Section D of Order No. R3-2004-0122 established wastewater collection system requirements for the proper operation, maintenance, and monitoring of the Discharger's collection system. Since the adoption of the previous Order/Permit in October 2004, the State Water Board has adopted a State-wide general permit for the regulation of the operation, maintenance, and monitoring of collection systems. This Order/Permit requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). This General Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger is enrolled under the General Permit.

## 7. Compliance Schedules – Not Applicable

## VIII. PUBLIC PARTICIPATION

The Central Coast Regional Water Board and USEPA Region IX are jointly issuing a notice of proposed actions under the Clean Water Act and Division 7 of the California Water Code, and regulations thereunder. The Regional Water Board and USEPA are proposing to jointly reissue Waste Discharge Requirements and an NPDES permit to the Goleta Sanitary District for the Goleta Sanitary District Wastewater Treatment Plant. The NPDES permit and Waste Discharge Requirements are based on a variance from federal secondary treatment standards at 40 CFR 133, as provided for improved

discharges under CWA Section 301(h) and 40 CFR 125, Subpart G. The Regional Water Board's participation in the reissuance of a 301(h)-modified NPDES permit will ensure that all applicable State water quality standards are satisfied, and as such, the Regional Water Board intends that issuance of the permit with USEPA will serve as its certification of the federal permit under CWA Section 401. The Regional Water Board and USEPA encourage public participation in this reissuance process.

#### A. Notification of Interested Parties

The Regional Board and the USEPA have notified the Discharger, interested agencies, and the public of the proposed actions, public hearing, and the opportunity to provide comments. In a February 11, 2010 letter, Regional Water Board staff informed the Discharger of our intent to have the item before the Regional Water Board at its May 13, 2010 meeting. The letter also transmitted instructions (and a Public Notice) for the Discharger to publish in a local newspaper. Notification was provided through the publication in the local newspaper on February 18, 2010, and posting on the Regional Water Board's website and the USEPA Region IX website stating that comments were due by March 22, 2010.

#### B. Written Comments

The proposed actions are tentative. Beginning February 18, 2010, interested persons were invited to submit written comments concerning the Administrative Record, including the draft Order and 301(h)-modified NPDES permit and fact sheet, comments received, 301(h) permit application, USEPA's 301(h) Tentative Decision Document, and other relevant documents. The public comment period ended on March 22, 2010. During the public comment period the Regional Board received a comment letters from the Goleta Sanitary District.

Goleta Sanitary District – The Discharger submitted a comment letter with minor editorial comments and corrections, which have been incorporated into the proposed Order/Permit, as well as the following comments.

1. Page 14. AA. Facility Upgrade. Update the description of the facility upgrade to reflect changes that have been incorporated into the design. The corrected description should read: *"The proposed upgraded facility will utilize the existing biofilter, and will include construction of a new biofilter identical to the existing, new activated sludge aeration basin and two new secondary clarifiers..."*

Staff Response: Regional Water Board staff concurs with the comment and has made the requested change to the facility upgrade description.

2. Page 22. C. Reclamations Specifications. This section states that the "The Discharger shall comply with Waste Discharge Requirements Order No. 91-03 for reclaimed water production. The Discharger shall comply with applicable state and local requirements regarding the *production and use of reclaimed wastewater* including requirements of

California Water Code (CWC) ..." The District requests the reference to the use of reclaimed water be removed from the second sentence.

Staff Response: The Discharger uses reclaimed water for landscape irrigation and for incidental uses at the wastewater treatment facility and therefore is required to comply with regulations pertaining to reclaimed water use. However, Regional Board staff will add the following sentence, "The Goleta Water District, as the primary user of reclaimed water, is responsible for the distribution and use of reclaimed water to the general public under Order No 91-04."

3. Page 22, section A.1.a.i indicates that the 30-day geometric mean requires that, "The following standards are based on the geometric mean of the *five most recent samples* from each receiving water monitoring location." The District requests that the reference to the five most recent samples be removed from the 30-day geometric mean limitation. The monitoring program requires weekly sampling of the surf zone. For most months of the year there would be a maximum of four samples taken during a 30 day period.

Staff Response: Section A.1.a.i contains receiving water limitations based on water quality objectives contained in the Ocean Plan. Regional Board staff does not have the authority to modify Ocean Plan receiving water limitations. The Discharger should work to collect surf zone samples on a schedule that will allow five samples to be collected within 30-days (taking samples the same day of the week each week). The limit is not a monthly limit, but rather a 30-day geometric mean using the five most recent samples. The Discharger must calculate the mean as a rolling value recalculating it each time a new piece of data is collected. No change to the Order/Permit is recommended.

4. Page 23, section A.1.b. describes the bacteriological standards established by the California Department of Public Health (CDPH). The District requests the removal of this section. It is not clear to the District the reason for this section to be included in the discharge specifications. The CDPH has no regulatory authority over the Goleta Sanitary District. All Goleta Sanitary District receiving water limitations and requirements are regulated by the USEPA and the RWQCB.

Staff Response: The CDPH standards referenced in permit section A.1.b. are identical to the objectives included in permit section A.1.a. Permit section A.1.b. includes background information regarding protective bacteriological standards for coastal waters, but does not include receiving water limitations and therefore it is appropriate to remove the language from the proposed permit. Regional Water Board staff concurs with the comment and removed the language in section A.1.b. from the proposed permit.

5. Page 33, section C.5.a.ix indicates that, "There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inter objects with a *diameter greater than 3/8 inches are removed.*" The District requests that the wording be changed to clarify the intent of this requirement. The existing headworks bar screen has 3/4 inch spaces.

Staff Response: Regional Water Board staff does not generally prescribe physical specifications for treatment plant processes. Regional Board staff proposes to change the language as follows, "There shall be adequate screening at the plant headworks and/or biosolids treatment units to ensure large pieces of metal, plastic, glass, and other inert object are removed."

6. Page E-9, section A, Acute Toxicity Testing. The District requests to have the option of using Topsmelt as the marine test species instead of Silversides (*Menidia beryllina*) as described in paragraph 2 of this section. *Menidia* is an east coast species, whereas the Topsmelt was developed by the State of California for testing on California effluents. The Topsmelt is discussed in the EPA manual, see page 239. *Menidia* may need to be used in some analyses due to the lack of availability of the Topsmelt.

Staff Response: The second paragraph of section A on page E-9 indicates that the Discharger shall use one of the approved marine test species, preferably Silversides, however other approved test species may be used. The Discharger is not required to use Silversides and can use other test species with sufficient justification and approval by the Executive Officer. No changes to the proposed Order/Permit are recommended as a result of this comment.

7. Page E-11 and E-12, Chronic Toxicity Testing. This section is inconsistent indicating the use of two species and no fewer than two tests and also indicating using three species and no fewer than three tests. The District requests clarification.

Staff Response: The second paragraph on page E-11 is the same as paragraphs one and two on page E-12. Regional Water Board staff deleted the second paragraph on page E-11. The section should indicate a minimum of three species to measure toxicity for a screening period of no fewer than three sampling events. Regional Water Board staff revised paragraph two on page E-12 to read, "A minimum of ~~two~~ *three* test species with approved test protocols with approved test protocols shall be used to measure compliance with the toxicity objective. ~~If possible,~~ *The* test species shall include a vertebrate, an invertebrate, and an aquatic plant. The sensitivity of test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. After a screening period of no less than *three* tests, monitoring may be reduced to the most sensitive species."

8. Page E-15, Surf Zone Monitoring. The District requested removal of the weekly surf zone sampling requirements. The elimination of this monitoring requirement is based on data collected over the past 15 years which has shown that disinfection of the effluent to kill bacteria and other pathogens is extremely effective. Effluent bacteria data collected after chlorination and dechlorination continue to show low concentrations of coliform and enterococcus bacteria leaving the treatment plant regardless of the season.

Effluent monitoring has clearly demonstrated the effectiveness of the disinfection process used by the District. Samples taken from Goleta Slough show consistently high



bacteria concentrations throughout the rainy winter months and indicate the true source of the high surf zone bacteria concentrations.

The District request the removal of the requirement for weekly surf zone monitoring and include a requirement for surf zone sampling based on the concentration of coliform in the final effluent. Suggested wording:

*"If three consecutive effluent total coliform bacteria tests exceed 16,000 MPN/100mL, samples shall be collected at surf zone stations A, A1, A2, B, C, D, and E and analyzed for total and fecal coliform and enterococcus organisms once a week. Sampling will continue until the effluent bacteria total coliform concentrations returns to compliance."*

Staff Response: The surf zone monitoring requirements are in place to ensure that the District's discharge does not impact receiving water beneficial uses including contact recreation at the beach. The results of surf-zone monitoring demonstrate that the Discharger is not adversely affecting the beach, and thereby justify the level of treatment to the wastewater. No changes to the proposed Order/Permit are recommended as a result of this comment.

9. Page E-24, Table E-11 includes reference to footnote #30 for cavity weight, condition factor, and gonadal index. However the table does not have a footnote #30.

Staff Response: The reference to footnote #30 was an error and instead should reference footnote #11 instead. Regional Board staff corrected the error so that cavity weight, condition factor, and gonadal index reference footnote #11 in Table E-11.

10. Page E-33 does not include paragraph #5. The Discharger requests the section be reviewed and updated to include all numbered paragraphs.

Staff Response: Paragraph #5 was erroneously omitted from the draft permit. Regional Water Board staff added the following sentence to page E-33, "A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs."

11. Page E-34, section B is titled Quarterly Reports but the section discusses semiannual reports. The District requests clarification of the requirement as either quarterly or semi-annual and if it is semi-annual then clarify if the second report should be included in the annual report.

Staff Response: The section title is incorrect and should be titled Semiannual Reports. Regional Water Board staff changed Quarterly to Semiannual.

12. Page F-4, section A does not contain the correct description of the upgraded facility design. The upgraded plant will include a new biofilter in addition to the existing biofilter. As part of facility upgrades the Discharger will construct a new solids handling building to house mechanical thickeners, polymer storage and a screw press to process

waste activated sludge. The District requests that paragraph two and three be modified to reflect the design changes.

Staff Response: Regional Water Board staff modified the language to include the new biofilter and the new solids handling information to section A on page F-4.

13. Page F-14, section 7 indicates that sediment monitoring includes BOD. However, BOD is not measured in sediment samples.

Staff Response: Regional Water Board staff concurs with the comment and removed BOD from the sediment sampling section.

14. Page F-15, section A indicates that the dry weather monthly rate of discharge shall not exceed 7.64 MGD and that reflects the design of the treatment capacity of the plant. The design capacity of the plant is 9.0 MGD as indicated in Table 4, the effluent flow limitation is retained from the previous permit but is not the design capacity.

Staff Response: Regional Water Board staff concurs with the comment and changed the proposed language to indicate that the flow limit is retained from the previous permit and removed reference to the design flow.

15. Page F-29, Table F-12 includes effluent limitation for the protection of marine aquatic life. The effluent limitations in the table do not match the effluent limitations listed in Table 10 of the permit.

Staff Response: The effluent limitations in Table F-12 were rounded by mistake, making the values very similar to those in Table 10, but not the same. Regional Water Board staff modified the values in Table F-12 to reflect the correct effluent limitations consistent with the values in Table 10.

### C. Public Hearing

The Regional Water Board held a public hearing on these proposed actions during its regular Board meeting on the following date and time and at the following location:

Date: **May 13, 2010**  
Time: **8:30 am**  
Location: **California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906**

Interested persons were invited to attend. No public testimony was presented at the public hearing. The Regional Water Board adopted the Order with no discussion.

Upon issuance of the final Order and 301(h)-modified NPDES permit decision and response to comments, the Regional Water Board and USEPA will notify the Discharger and persons who submitted written comments, or requested notice of the final decision.

Please be aware that dates and venues may change. Our Web address is <http://www.waterboards.ca.gov/centralcoast/> 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 documents, above, are available for public inspection at the Regional Water Board and USEPA office locations, Monday through Friday, between 8:00 a.m. and 5:00 p.m. Copying of documents may be arranged by calling the Regional Water Board at (805) 549-3147, or USEPA at (415) 972-3044.

#### **F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding these proposed actions should contact the Regional Water Board and USEPA, reference this facility, and provide a name, address, and phone number.

#### **G. Waste Discharge Requirements Petitions**

Any aggrieved person may petition the State Water Resource Control Board to review the decision of the Regional Board regarding the final Waste Discharge Requirements. 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  
PO Box 100, 1001 I Street  
Sacramento, CA 95812-0100

## H. Appeal of Federal Permit

When a final 301(h)-modified NPDES permit is issued by USEPA, it will become effective 33 days following the date it is mailed to the Discharger, unless a request for review is filed. If a request for review is filed, only those permit conditions which are uncontested will go into effect pending deposition of the request for review. Requests for review must be filed within 33 days following the date the final permit is mailed and must meet the requirements of 40 CFR 124.19. All requests for review should be addressed to the Environmental Appeals Board (EAB) as follows. Requests sent through the U.S. Postal Service (except by Express Mail) must be addressed to the EAB's mailing address, which is:

U.S. Environmental Protection Agency  
Clerk of the Board  
Environmental Appeals Board (MC 1103B)  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460-0001

All filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Express Mail, should be directed to the following address:

Environmental Appeals Board  
U.S. Environmental Protection Agency  
Colorado Building  
1341 G Street, N.W., Suite 600  
Washington, D.C. 20460

Those persons filing a request for review must have filed comments on the tentative decision and draft permit, or participated in the public hearing, except as provided in 40 CFR 124.19. Otherwise, any such request for review maybe filed only to the extent of changes from the draft permit to the final permit decision.

## I. Additional Information

Requests for additional information or questions regarding this order should be directed to Ryan Lodge of the Regional Water Board at (805) 549-3506 or [rlodge@waterboards.ca.gov](mailto:rlodge@waterboards.ca.gov) and Elizabeth Sablad of USEPA at (415) 972-3044.

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