

CALIFORNIA COASTAL COMMISSION

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**W 10a****REVISED STAFF REPORT AND RECOMMENDATION****ON CONSISTENCY CERTIFICATION**

Consistency Certification No.	CC-013-02
Staff:	MPD-SF
File Date:	2/07/2002
3 Months:	5/07/2002
6 Months:	Extended
Commission Meeting:	1/12/2005

APPLICANT: **Goleta Sanitary District****PROJECT LOCATION:** Goleta Municipal Wastewater treatment plant, Santa Barbara County, and offshore waters (Exhibits 1-2)**PROJECT DESCRIPTION:** Reissuance of Secondary Treatment Waiver**FEDERAL AGENCY AND PERMIT:** EPA (Environmental Protection Agency) Reissuance, under Section 301(h) of the Clean Water Act, of a modified National Pollutant Discharge and Elimination System (NPDES) Permit for Wastewater Treatment Plant Discharges**SUBSTANTIVE FILE DOCUMENTS:** See page 27.

Staff Note: This item was originally scheduled for Commission action in mid-2002. The matter was extended, pending Regional Water Quality Control Board (RWQCB) review. In July 2002 the RWQCB denied the waiver, and eventually the Sanitary District agreed to upgrade to secondary treatment. However due to the length of time needed to implement secondary treatment, a waiver is still needed in the interim period. On November 10, 2004, the District and the RWQCB signed a settlement agreement providing for an upgrade to full secondary treatment within ten years (see schedule, pp. 5-6, Exhibit 4, and pp. 6-7, Exhibit 6). On November 29, 2004, the RWQCB approved the District's revised waiver application.

EXECUTIVE SUMMARY

Under the Clean Water Act (CWA), wastewater discharges from publicly owned treatment works (POTWs) are required to receive at least secondary treatment. However, Clean Water Act Section 301(h), sometimes referred to as the "ocean waiver" provision of the Clean Water Act, gives the EPA Administrator (with the concurrence of the RWQCB (Regional Water Quality Control Board)) the authority to grant a waiver from otherwise applicable secondary treatment requirements. Such a waiver would authorize the Sanitary District to continue to discharge effluent receiving less than full secondary treatment in terms of suspended solids, biochemical oxygen demand, and pH. The waivers need to be renewed every five years.

In reviewing past secondary treatment waiver and waiver renewal requests for the City of Morro Bay, San Diego, Goleta and Orange County, the Commission has historically concurred with consistency certifications and found applicable water quality and marine resource policies of the Coastal Act to be met when: (1) adequate monitoring is in place; and (2) EPA and the appropriate RWQCB have determined that the discharger's effluent complies with the applicable Clean Water Act and Ocean Plan requirements. The one exception to this was the Commission's April 8, 2002, objection to the City of San Diego's secondary treatment waiver renewal (CC-10-02). However upon resubmittal (after actions by the RWQCB and the State Water Resources Control Board (SWRCB)), the Commission subsequently concurred with this waiver (CC-28-02).

Goleta's discharges are relatively small; Goleta's flows average 4.7 million gallons per day (mgd) (4.4 mgd of which receive secondary treatment), compared to California's two large waiver applicants: Orange County (approximately 250 mgd),¹ and San Diego (approximately 195 mgd). EPA's Independent Technical evaluation determined that Goleta meets the applicable Clean Water Act standards for a waiver. Monitoring for the 5 years preceding the Sanitary District's submittal in 2002 indicated that the treatment plant averaged, in terms of monthly percent removal, 86% removal of total suspended solids (SS), and 72% removal of BOD (biochemical oxygen demand).² Full secondary treatment standards would require 85% removal of both TSS and BOD. Further, the monitoring of the biological effects of the discharges supports the applicant's claim that the discharges comply with the secondary treatment waiver requirements and would not adversely affect marine resources. The stringent monitoring as required under Section 301(h) will be continued. Moreover, the Sanitary District has agreed to upgrade to full secondary treatment within ten years.

On November 29, 2004, the RWQCB approved the Sanitary District's revised waiver application. As conditioned by the RWQCB (Exhibit 6), the discharges would not adversely affect marine resources and would be consistent with Sections 30230, 30231, 30234, 30234.5,

¹ Orange County has now agreed to upgrade to secondary treatment.

² More recent monitoring data for 2003 indicates 84% removal of total suspended solids (TSS), and 75% removal of BOD.

30213, and 30220 (the marine resources, water quality, commercial and recreational fishing, and public recreation policies) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION:

I. Project Description. The Goleta Sanitary District has requested a waiver under Section 301(h) of the Clean Water Act (the Act), 33 U.S.C. Section 1311(h), from the secondary treatment requirements contained in Section 301(b)(1)(B) of the Act, 33 U.S.C. Section 1311(b)(1)(B). The waiver is being sought for the Goleta wastewater treatment plant and outfall, which is 36 inches in diameter and terminates in a 280-foot long multiport (34 port) diffuser, approximately 1 nautical mile (5,912 ft.) offshore of Goleta, in about 87 feet of water (Exhibit 2).

The treatment plant provides full primary and partial secondary wastewater treatment for a service population of about 80,000, serving the Goleta/Santa Barbara airport and surrounding area. The application is based on an current average dry-weather flow of 4.7 million gallons per day (mgd) (and an estimated flow of 7.64 mgd at the end of the 5-Year permit). Flows up to 4.4 mgd receive secondary treatment; excess flows receive primary treatment and are blended with secondarily treated flows. Total design capacity is 9 mgd. Peak wet weather capacity is 25.4 mgd.

The system includes a pretreatment program for regulating monitoring industrial discharges (which form a low percentage of total flows), as well as recycling and sludge reuse programs. A portion of Goleta's secondary flows (up to 3 mgd) may be diverted for water reclamation. The remaining secondary flow is combined with the primary flows, where it is chlorinated and dechlorinated before discharge to the ocean. Sludge from the primary process is treated through anaerobic digestion, then sent to stabilization basins. Dried sludge is made available as Class A biosolids or as a soil amendment for agricultural lands.

Secondary treatment is defined in Clean Water Act implementing regulations (40 CFR Part 133) in terms of effluent quality for suspended solids (SS), biochemical oxygen demand (BOD) and pH. The secondary treatment requirements for SS, BOD and pH are as follows:

SS: (1) The 30-day average shall not exceed **30 mg/l** (milligrams per liter). (2) The 7-day average shall not exceed 45 mg/l. (3) The 30-day average percent removal shall not be less than **85%**;

BOD: (1) The 30-day average shall not exceed **30 mg/l**. (2) The 7-day average shall not exceed 45 mg/l. (3) The 30-day average percent removal shall not be less than **85%**;

pH: The effluent limits for pH shall be maintained within the limits of 6.0 to 9.0 pH units.

The **current permit** contains the following limits for SS and BOD:

SS: (1) A 30-day average for suspended solids of **63 mg/l**. (2) The maximum allowable at any time shall not exceed 100 mg/l. (3) The 30-day average percent removal shall not be less than **75%**.

BOD: (1) The 30-day average shall not exceed **98 mg/l**. (2) The maximum allowable at any time shall not exceed 150-mg/l.

Data for 2001 showed Goleta's treatment plant removed an average of **85%** of suspended solids and **74%** of BOD. (More recent monitoring data for 2003 indicates **84%** removal of total suspended solids (TSS), and **75%** removal of BOD.) No variance from secondary pH standards is requested, as the plant meets secondary standards for pH.

State water quality standards (i.e., the California Ocean Plan) require removal of **75%** of suspended solids. The Ocean Plan does not have an effluent limitation for BOD; the comparable standard is for dissolved oxygen, and the Plan requires that "dissolved oxygen shall not at any time be depressed more than 10% from that which occurs naturally as a result of the discharge of oxygen-demanding waste materials."

II. Goleta Waiver History. The RWQCB granted the Goleta Sanitary District's previous waiver request on July 26, 1996 (NPDES Permit No. CA0048160). The Commission concurred with a consistency certification for the waiver on January 8, 1997 (CC-126-96). On March 29, 2001, the Sanitary District applied to EPA and the RWQCB for a renewal of the waiver. These waivers and waiver renewal applications are independently reviewed but jointly issued by EPA and the RWQCB. EPA's independent Technical Analysis is attached as Exhibit 3. After EPA performs its technical review it issues a Tentative Decision (TDD) to grant the 301(h) waiver of secondary requirements, which is then followed by a RWQCB hearing (including public comments), and a final EPA decision (including responses to comments).

This item was originally scheduled for the Commission's May 2002 meeting. The matter was extended, pending RWQCB review, and on July 12, 2002, the RWQCB denied a "301h" permit (and "401 certification") for the waiver. The RWQCB's Resolution required the District to submit a modified NPDES permit application to the RWQCB by December 12, 2002. On August 8, 2002, the District appealed the RWQCB action to the State Water Resources Control Board (SWRCB). On January 22, 2003, the SWRCB dismissed the District's petition "by operation of law."

On December 4, 2003, the District submitted an application for a 301(h) permit to the RWQCB and EPA, including a reduced flow limit of 7.64 mgd (down from the previously-proposed 8.24 mgd) (and also including a "Section 401" Water Quality Certification Application. The District provided additional information on December 19, 2003. On December 30, 2003 the Regional Board denied 401 certification without prejudice.

On May 7, 2004, the District agreed to upgrade to secondary treatment, stating that "it would be in the best interests of its constituents to propose an amendment to its pending application to convert to secondary treatment and to further explore how such an amendment might be structured." In addition, while the District had filed a Petition for Writ of Mandate in Santa Barbara County Superior Court, the District and the RWQCB signed a settlement agreement dated November 10, 2004 (Exhibit 4), in which the District agrees to upgrade to full secondary treatment within ten years (and to maintain the total suspended solids (TSS) and biological oxygen demand (BOD) limits at existing permit levels). On November 29, 2004, the RWQCB approved the revised application (Exhibit 6). The RWQCB staff report described the settlement as follows:

After the Regional Board issues the proposed Order and the State Board resolves any third-party challenges regarding 301(h) waiver issues, the District will dismiss its lawsuit. The District proposes a ten-year conversion schedule to full secondary treatment ("Conversion Period") and Regional Board staff will recommend approval to the Regional Board, assuming staff and the Discharger agree upon other settlement terms. The settlement would include a schedule of agreed-upon milestones for the Discharger to complete during the ten-year process. These milestones will be included in the settlement agreement and permit findings. The Regional 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 will continue in effect only if the adopted Order includes findings stating that that (i) Subject to the provisions of the Settlement Agreement regarding Regional Board discretion and new evidence of plant impacts (defined below), the Settlement Agreement contemplates that the Regional 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, (ii) based on the administrative record, including population growth projections through 2014, known environmental and cumulative impacts of the District's existing wastewater treatment facilities, and evidence submitted by the District of the time needed for upgrading the plant, the conversion schedule is appropriate, and (iii) at the end of the Conversion Period, once the District has converted to secondary treatment of effluent from the Plant, the Regional 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 Board determines are necessary to comply with State or Federal law.

Addressing the temporal disparity between the 5-Year permit and the 10-year agreement to convert to full secondary treatment, the RWQCB report also notes:

Under the Clean Water Act, an NPDES permit (and therefore Section 401 certification and 301(h) waiver concurrence) cannot have a term in excess of five years. Therefore, USEPA and the Regional Board will review the record in five years to determine whether, in their discretion, the BOD and TSS limits and conversion schedule are appropriate. Unless there is a change in the law or new evidence of Plant impacts, the Regional Board's Executive Officer will recommend keeping the existing limits and schedule in place so that the District can complete the upgrade and the parties can avoid further litigation. "New evidence of plant impacts" means evidence in addition to what is already contained in the record, and would include information of actual or projected (2010-2014) effluent flows that are significantly higher than current projections and/or that could exceed permitted limits, new evidence showing that the facility does not meet the requirements for a 301(h) waiver, or a change in the law. The Executive Officer will provide a written description of any new evidence that is the basis for not recommending renewed 301(h) waiver.

The second permit will be issued as a 301(h)-modified permit or, if the record does not support a 301(h) waiver, an NPDES permit with a five-year time schedule order or cease and desist order. The settlement agreement will continue in force if either of these permits are issued. If for any reason the Regional Board does not continue the BOD and TSS limits and conversion schedule in the renewed permit, the settlement agreement would have no further effect and the Discharger would not have to pay any stipulated penalties that accrued during the term of the first permit.

III. Changes to the Waiver as Currently Proposed. Significant changes to the RWQCB's Order No. R3-2004-0129 (compared to the previous order - No. 96-21) include the following:

1. Local Wastewater Collection Entities: The Goleta West Sanitary District, the City of Santa Barbara Municipal Airport, the University of California at Santa Barbara, and the County of Santa Barbara Public Works Department have been removed from coverage under this proposed Order and will be regulated under a different Order (proposed Order No. R3-2004-0130).

2. Wastewater Collection System Management Plan: Requirements for the development and implementation of a Wastewater Collection System Management Plan were added to the Permittee's revised Order. The RWQCB has adopted the same or similar requirements for other municipal waste discharges. ...

3. Updates based on current Ocean Plan (includes both Table B effluent limits and updated narrative Ocean Plan requirements).

4. Modified requirements for Biosolids (based on standard current EPA language).

5. Findings regarding a ten-year upgrade to full secondary treatment.

In addition, the terms of the Settlement Agreement between the District and the RWQCB (Exhibit 4) provide:

1. Conversion Schedule [Note: see Exhibit 4, pp. 5-6 for detailed schedule/milestones]

The District shall undertake a program to install and operate equipment at its treatment plant capable of achieving, and achieve, secondary treatment requirements set forth in 40 C.F.R. Part 133, other than 40 C.F.R. section 133.105. The program must be designed to adequately address projected future wastewater flows as of the end of the Conversion Schedule. The District shall complete the planning, design, construction and operation of the facilities necessary to attain compliance with the secondary treatment requirements in accordance with the schedule set forth below (the "Conversion Schedule"). The ten-year upgrade period, commencing with the issuance of the First 5-Year Permit (defined below) and ending on the last date listed in the Conversion Schedule, is the "Conversion Period."

The Settlement Agreement also provides:

2. Secondary Treatment Limits and District's Conversion to Secondary.

a. First Five-Year Permit Cycle.

1. The Regional Board's Executive Officer shall recommend to the Regional Board that it (i) concur in the issuance of a five (5)-year 301(h) permit for the District (the "First 5-Year Permit"), and (ii) provide water quality certification of the First 5-Year Permit under Clean Water Act Section 401 (33 U.S.C. §1341) without changing the District's current requirements for biochemical oxygen demand ("BOD") or total suspended solids ("TSS"). It is not the intent of this Agreement to impose numeric or narrative requirements for other constituents (e.g., limits for bacteria) that would effectively require the District to upgrade to full-secondary treatment faster than provided under the Conversion Schedule. Therefore, unless there is new evidence that was not in the administrative record as of the date the Regional Board's Executive Officer signed this Agreement, the Executive Officer shall recommend that the First 5-Year Permit allow the District to continue with its current treatment process consistent with the provisions of its existing 301(h) permit, Order No. 96-21 (except as provided below with respect to Enhanced Treatment),

2. The BOD and TSS limits to be recommended by the Executive Officer for approval are ... [the same as listed on page 3 above]

3. The findings recommended for adoption by the Regional Board in connection with the First 5-Year Permit and the issuance of water quality certification shall reference the Settlement Agreement and shall incorporate the Conversion Schedule. The findings recommended for adoption by the Regional Board shall also state that:

(i) Subject to the provisions of the Settlement Agreement regarding Regional Board Discretion and New Evidence, the Settlement Agreement contemplates that the Regional Board will concur in or issue the First and Second 5-Year Permits (defined below) 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,

(ii) Based on the administrative record, including population growth projections through 2014, known environmental and cumulative impacts of the District's existing wastewater treatment facilities, and evidence submitted by the District of the time needed for upgrading the plant, the Conversion Schedule is appropriate, and

(iii) At the end of the Conversion Period, once the District has converted to secondary treatment of effluent from the Plant, the Regional Board expects to issue an NPDES permit imposing effluent limitations based on secondary treatment as defined in 40 C.F.R. Part 133, 8 or any more stringent requirements the Regional Board determines are necessary to comply with State or Federal law.

4. If the Regional Board adopts the Executive Officer's recommendation by concurring with the First 5-Year Permit and issuing water quality certification, the District shall commence the process for completing all modifications to its plant necessary to comply with secondary treatment standards ("upgrade to secondary treatment") by the end of the Conversion Period, in accordance with the Conversion Schedule.

The Settlement Agreement also discusses what is expected for the second Five-Year permit cycle, indicating that a second waiver will be considered appropriate, unless:

...there is evidence not in the administrative record at the time the First 5-Year Permit is issued ("New Evidence") that (a) the plant cannot satisfy one or more of the applicable requirements for issuance of a 301(h) permit; (b) population growth is likely to cause the projected average dry weather flows through the plant to exceed 7.64 mgd prior to the end of the Conversion Period; or (c) a change in the law requires more stringent limits. [Note: see Exhibit 4, pp. 8-9, for further details.]

The Settlement Agreement further contains provisions for "Enhanced Treatment," a contingency measure that would be triggered in the event growth in the area results in increases in mass loadings approaching 85% of permitted levels. The Agreement provides:

D. REQUIRED ACTIONS DURING CONVERSION PERIOD.

1. Enhanced Treatment.

a. If, during the Conversion Period, the District's effluent monthly (30-day) average mass emissions for total suspended solids (TSS) or biochemical oxygen demand (BOD) measured over the three-month period of June, July, and August of each year exceed eighty-five percent (85%) of the mass emissions limit set forth in the District's current 301(h) Permit, the District will enhance its treatment process by the use of polymers or other available technologies of equal or lesser cost (taking into account capital, operations and maintenance costs) and equal or better effectiveness ("Enhanced Treatment") in an effort to reduce mass emissions to eighty-five percent (85%) of the Permit limit.

...

e. The Enhanced Treatment requirements shall not be stated as NPDES permit conditions that could give rise to administrative civil liability, but shall be incorporated into the findings adopted as part of any 301(h) or NPDES permit issued to the District during the Conversion Period. [Note: see Exhibit 4, pp. 15-16, for further details.]

IV. Previous Commission Reviews of Waivers Statewide. In 1979, and 1983-1985, the Commission reviewed a number of secondary treatment waiver applications under the federal consistency provisions of the Coastal Zone Management Act, and EPA ultimately granted many of these waivers. During these reviews the Commission expressed concern over the need for treatment meeting the *equivalent* of secondary treatment with respect to removal of toxics. Nevertheless, at that time, the Commission consciously adopted a neutral position on the waivers. Since a position of "neutrality" is not an action that is recognized under CZMA regulations, the Commission's concurrence in the waivers was presumed pursuant to section 307(c)(3)(A) of the CZMA.

Section 301(h) waivers are only valid for 5 years, although administrative extensions commonly occur during processing of renewal applications. Four of the waiver applicants continued to pursue waivers, which subsequently came up for renewal: Goleta, Morro Bay, Orange County (CSDOC), and the City of San Diego. On January 8, 1997, the Commission concurred with Goleta's renewal (CC-126-96). On January 13, 1999, and January 12, 1993, the Commission concurred with Morro Bay's renewals (CC-123-98 and CC-88-92, respectively). On March 10, 1998, the Commission concurred with Orange County's renewal (CC-3-98). Orange County has now agreed to upgrade to secondary treatment, by December 31, 2012.

The City of San Diego had allowed its initial waiver to lapse; however special legislation (the Ocean Pollution Reduction Act of 1994 (OPRA)) enabled the City to reapply. Due to this unique circumstance, on September 27, 1995, after a Commission public hearing, the Commission staff concurred with a "No effects" letter (rather than the normal consistency certification) for the City of San Diego's initial waiver (NE-94-95). On April 8, 2002, the Commission initially objected to the City of San Diego's waiver renewal (CC-10-02), and the San Diego RWQCB echoed several of the Commission's concerns, which involved mass emissions levels, water reclamation, and monitoring provisions. The RWQCB modified its staff-recommended permit conditions and addressed these three areas of Commission concern with additional conditions reducing permitted mass emission loadings by 6.7%, requesting annual reports showing progress towards implementing water reclamation, and further review of the monitoring program. On May 8, 2002, the City of San Diego appealed the Coastal Commission's consistency certification objection (CC-10-02) to the Secretary of Commerce. On May 9, 2002, the City appealed the RWQCB's NPDES permit action modifying the mass emission limits to the State Water Resources Control Board (SWRCB). The City and the Commission staff agreed to "stay" any further deliberations in the Commission/Secretary of Commerce appeal, pending Commission reconsideration of the matter once the SWRCB acted. On August 15, 2002, the SWRCB ordered the mass emission limits to be returned to the originally-drafted 15,000 metric tons (MT)/yr. (for the first four years) (i.e., the level recommended prior to RWQCB modification). On September 9, 2002, the Commission concurred with the City's consistency certification for the permit as modified and ordered by the SWRCB (and resubmitted to the Commission as CC-28-02).

V. Status of Local Coastal Program. The standard of review for federal consistency certifications is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If an LCP that the Commission has certified and incorporated into the California Coastal Management Program (CCMP) provides development standards that are applicable to the project site, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The City of Goleta's LCP has not been submitted to or certified by the Commission; thus it has not been incorporated into the CCMP.

VI. Applicant's Consistency Certification. The Goleta Sanitary District has certified that the proposed activity complies with the federally approved California Coastal Management Program and will be conducted in a manner consistent with such program.

VII. Staff Recommendation. The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency certification CC-13-02 that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).

STAFF RECOMMENDATION:

The staff recommends a YES vote on the motion. Passage of this motion will result in a concurrence in the certification and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

RESOLUTION TO CONCUR IN CONSISTENCY CERTIFICATION:

The Commission hereby **concurs** with the consistency certification made by the Goleta Sanitary District for the proposed project, finding that the project is consistent with the California Coastal Management Program.

VIII. Findings and Declarations:

The Commission finds and declares as follows:

A. Water Quality/Marine Resources.

1. Regulatory Framework. The Environmental Protection agency (EPA) and the applicable RWQCBs (Regional Water Quality Control Boards) regulate municipal wastewater outfalls discharging into the Pacific Ocean under NPDES permits issued pursuant to the federal Clean Water Act. As enacted in 1972, the Clean Water Act required secondary treatment for all wastewater treatment nationwide. Amendments to the Clean Water Act in 1977 provided for Section 301(h) (33 USC Section 1311(h)) waivers of the otherwise applicable requirements for secondary treatment for discharges from publicly owned treatment works into marine waters. Section 301(h) is implemented by EPA regulations set forth in 40 CFR Part 125, Subpart G.

Section 301(h) of the Clean Water Act provides that an NPDES permit which modifies the secondary treatment requirements may be issued if the applicant: (1) discharges into oceanic or saline, well-mixed estuarine waters; and (2) demonstrates to EPA's satisfaction that the modifications will meet those requirements specified in Section 301(h) (see pp. 13-14 below), including: (a) that the waiver will not result in any increase in the discharge of toxic pollutants or otherwise impair the integrity of receiving waters; and (b) that the discharger must implement a monitoring program for effluent quality, must assure compliance with pre-

treatment requirements for toxic control, must assure compliance with water quality standards, and must measure impacts to indigenous marine biota. In California, the applicable water quality standards are embodied in the California Ocean Plan (see pp. 14-16 below, and Exhibit 5).

While the State of California (through the SWRCB and RWQCBs) administers the NPDES permit program and issues permits for most discharges to waters within State waters, authority to grant a waiver and issue a modified NPDES permit under Section 301(h) of the Act is reserved to the Regional Administrator of EPA. Prior state concurrence with the waiver is also required.

Section 307(f) of the federal CZMA specifically incorporates the Clean Water Act into the California Coastal Management Program (CCMP). Commission consistency certification review is required for 301(h) applicants, because EPA NPDES permits are listed in California's program as federal licenses or permits for activities affecting land or water uses in the coastal zone. In reviewing the discharges, the Commission relies on the Clean Water Act and its implementing regulations, the California Ocean Plan, the Coastal Act (Chapter 3 policies), and Water Code Section 13142.5 (incorporated into the Coastal Act by Section 30412(a)). These requirements, which are further described and summarized below, provide both specific numerical standards for pollutants, as well as general standards for protection of marine biological productivity.

a. Clean Water Act/Section 301(h). Implementation of the Clean Water Act in California, for the most part, has been delegated to the applicable RWQCB for issuance of NPDES permits. Under an MOA between EPA and the State of California, NPDES permits for outfalls beyond 3 miles *and* for secondary treatment waivers (regardless of location) are issued jointly by EPA and the applicable RWQCB. The Clean Water Act divides pollutants into three categories for purposes of regulation, as follows: (1) conventional pollutants, consisting of total suspended solids (TSS or SS); biochemical oxygen demand (BOD, a measure of the amount of oxygen consumed during degradation of waste); pH; fecal coliform bacteria; and oil and grease; (2) toxic pollutants, including heavy metals and organic chemicals; and (3) non-conventional pollutants (a "catch-all" category for other substances needing regulation (e.g., nitrogen and phosphorus, chlorine, fluoride)).

Guidelines adopted under Section 403 of the Clean Water Act (40 CFR Part 125.120-124, Subpart M, "Ocean Discharge Criteria") specify that beyond an initial mixing zone, commonly referred to as the zone of initial dilution (ZID), the applicable water quality standards must be met. The zone of initial dilution is the boundary of the area where the discharge plume achieves natural buoyancy and first begins to spread horizontally. Discharged sewage is mostly freshwater, so it creates a buoyant plume that moves upward toward the sea surface, entraining ambient seawater in the process. The wastewater/seawater plume rises through the water column until its density is equivalent to that of the surrounding water, at which point it spreads out horizontally.

Section 301(h) of the Clean Water provides for secondary treatment waivers under certain circumstances. The following requirements must be met for EPA to grant a secondary treatment waiver:

- (1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 304(a)(6) of this Act;*
- (2) 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 the protection and propagation of a balanced, indigenous population (BIP) of shellfish, fish and wildlife, and allows recreational activities, in and on the water;*
- (3) 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 the monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;*
- (4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;*
- (5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;*
- (6) 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;*
- (7) 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;*
- (8) 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;*

(9) 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.

For the purposes of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into saline estuarine waters where there is strong tidal movement and other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this subsection, and section 101(a)(2) of this Act. For the purposes of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation and skimming adequate to remove at least 30 percent of the biochemical oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit pursuant to this subsection which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into marine estuarine waters which at the time of application do not support a balanced, indigenous population of shellfish, fish and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish and wildlife, or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge. ...

b. California Ocean Plan. The California Ocean Plan was originally adopted by the SWRCB and approved by the EPA in June 1972, and is revised every three years. Among the California Ocean Plan requirements are the following water quality objectives (Chapter II):

A. Bacterial Characteristics, for body-contact recreation and shellfish harvesting;

B. Physical Characteristics, including floatables, visible oil and grease, discoloration of the surface, the reduction of light penetration, and the rate of deposition of solid and inert materials on the bottom;

C. Chemical Characteristics, including dissolved oxygen, pH, dissolved sulfide in and near sediments, concentration of substances in the sediments, organic materials in the sediments, and nutrient levels, and including maintenance of standards such as protecting indigenous biota and marine life;

D. Biological Characteristics, including:

- 1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.*
- 2. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.*
- 3. The concentrations of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.*

E. Radioactivity, including maintenance of a standard that marine life shall not be degraded.

General requirements in the Ocean Plan include:

A. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

B. Waste discharged to the ocean must be essentially free of:

- 1. Material that is floatable or will become floatable upon discharge.*
- 2. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.*
- 3. Substances which will accumulate to toxic levels in marine waters, sediments or biota.*
- 4. Substances that significantly decrease the natural light to benthic communities and other marine life.*

5. Materials that result in aesthetically undesirable discoloration of the ocean surface.

C. Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

D. Location of waste discharges must be determined after a detailed assessment of the oceanographic characteristics and current patterns to assure that: ...

1. Pathogenic organisms and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports.

2. Natural water quality conditions are not altered in areas designated as being of special biological significance.

3. Maximum protection is provided to the marine environment.

In addition, the Ocean Plan contains "Table A" effluent limitations for major wastewater constituents and properties, "Table B" limitations that provide maximum concentrations for toxic materials that may not be exceeded upon completion of initial dilution, and other standards. Table A and B limitations are contained in Exhibit 5.

c. Coastal Act Policies. The Coastal Act contains policies protecting water quality and marine resources. Section 30230 of the Coastal Act provides:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 provides:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water

reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

In addition to these resource protection policies, Section 30412 addresses the Commission's relationship with the SWRCB (State Water Resources Control Board and RWQCB); Section 30412 provides (in relevant part):

(a) In addition to the provisions set forth in Section 13142.5 of the Water Code, the provisions of this section shall apply to the commission and the State Water Resources Control Board and the California regional water quality control boards.

(b) The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. The State Water Resources Control Board has primary responsibility for the administration of water rights pursuant to applicable law. The commission shall assure that proposed development and local coastal programs shall not frustrate the provisions of this section. Neither the commission nor any regional commission shall, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

Except as provided in this section, nothing herein shall be interpreted in any way either as prohibiting or limiting the commission, regional commission, local government, or port governing body from exercising the regulatory controls over development pursuant to this division in a manner necessary to carry out the provisions of this division.

Finally, Section 13142.5 of the Water Code, which is referenced in Section 30412 above, provides:

In addition to any other policies established pursuant to this division, the policies of the state with respect to water quality as it relates to the coastal marine environment are that:

(a) Waste water discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. Highest priority shall be given to improving or eliminating discharges that adversely affect any of the following:

- (1) Wetlands, estuaries, and other biologically sensitive sites.*
- (2) Areas important for water contact sports.*
- (3) Areas that produce shellfish for human consumption.*

(4) Ocean areas subject to massive waste discharge.

Ocean chemistry and mixing processes, marine life conditions, other present or proposed outfalls in the vicinity, and relevant aspects of areawide waste treatment management plans and programs, but not of convenience to the discharger, shall for the purposes of this section, be considered in determining the effects of such discharges...

2. EPA Evaluation of the Goleta Sanitary District's Discharges. EPA has conducted a technical evaluation analyzing the Goleta Sanitary District compliance with the 301(h) criteria discussed above. This tentative evaluation, dated, January 17, 2002 (Exhibit 3), includes the following EPA findings:

SUMMARY OF FINDINGS

Based upon review of the data, references, and empirical evidence furnished in the 1997 re-application, and associated monitoring reports, the EPA Region 9 makes the following findings with regard to compliance with the statutory and regulatory criteria:

- 1. The applicant's proposed discharge will comply with the California Ocean Plan water quality standards for suspended solids and dissolved oxygen, and pH. [Section 301(h)(1), 40 CFR 125.61].*
- 2. The applicant's proposed discharge will not adversely impact public water supplies or interfere with the protection and propagation of a balanced, indigenous population of fish, shellfish, and wildlife. [Section 301(h)(2), 40 CFR 125.62].*
- 3. The existing monitoring program is sufficient to assess the impacts associated with the outfall. EPA and the Central Coast Regional Water Quality Control Board have made minor changes to the influent and effluent monitoring requirements that are reflected in the draft permit. [Section 301(h)(3), 40 CFR 125.63].*
- 4. The applicant's proposed discharge will not result in any additional treatment requirements on any other point or nonpoint source. [Section 301(h)(4), 40 CFR 125.64].*
- 5. The applicant has an approved pretreatment program which has been in effect since 1983. [Section 301(h)(5), 40 CFR 125.66 and 125.68].*
- 6. The applicant addresses the urban area pretreatment requirement by establishing applicable local limits for each toxic pollutant introduced in the effluent by industrial sources. [Section 301(h)(6), 40 CFR 125.65].*

7. *The applicant has a nonindustrial source control program which has been in effect since 1986 to characterize pollutants from residential areas and a public education program encouraging waste minimization/source reduction programs to limit entrance of toxic pollutants and pesticides into the treatment plant. [Section 301(h)(7), 40 CFR 125.66].*

8. *There will be no substantially increased discharge from the point source of the pollutants to which the variance would apply (BOD and SS), above those which would be specified in the section 301(h) permit. [Section 301(h)(8), 40 CFR 125.67].*

9. *The applicant has demonstrated through past performance that its treatment facilities will be removing more than 30% of the influent five-day biochemical oxygen demand (BOD) and suspended solids. The applicant will be in compliance with all applicable Federal water quality criteria, as established under Section 304(a) of the Clean Water Act. [Section 301(h)(9), 40 CFR 125.60]*

10. *In a letter dated November 30, 2000, the Central Coast Regional Water Quality Control Board made a determination that the NPDES permit contains provisions to ensure that the discharge will meet water quality standards for the Pacific Ocean and not require imposition of additional treatment or control requirements to be applied to other dischargers. Issuance of final waste discharge requirements will constitute the State's certification and concurrence under 40 CFR 124.54.*

CONCLUSION

It is concluded that the applicant's proposed discharge will comply with the requirements of section 301(h) and 40 CFR Part 125, subpart G, as stated above.

More specifically with respect to TSS and BOD, EPA's analysis stated:

A. Suspended Solids.

1. *Solids Removal. The California Ocean Plan (COP) calls for at least 75% removal of suspended solids (as a 30-day average). The applicant measures the suspended solids concentrations in the influent and effluent five times per week. ... The average monthly suspended solids concentration is 40 mg/l. The maximum monthly average was 56 mg/l.*

...

The average monthly percent removal over this same time period was 86 mg/l. The minimum monthly percent removal over this time period was 81%.

Table 2. Average monthly percent removal of suspended solids concentration in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		87	86	87	88	88
February		87	84	88	85	85
March		86	86	89	82	83
April		85	86	89	83	86
May		87	84	85	86	83
June		87	86	89	89	84
July		87	83	91	86	84
August		86	81	89	87	85
September		88	83	86	89	85
October	88	85	82	87	89	83
November	89	88	84	90	88	
December	89	90	88	88	86	
Annual Average	89	87	84	88		

2. Turbidity. The COP establishes the following effluent limits for turbidity.

	30-day Ave.	Weekly Ave.	Daily Max.
Turbidity	75 NTU ³	100 NTU	225 NTU

These were established as permit limits in the existing permit. Effluent turbidity is measured by the applicant five times per week. These data are summarized in Table 3.

Table 3. Average monthly turbidity concentration (NTU) in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001	Average
January		42	48	48	43	38	44
February		51	46	55	47	46	49
March		53	38	53	45	47	47
April		57	42	37	47	48	46
May		53	51	56	53	55	54
June		54	48	51	52	53	51
July		50	52	49	51	45	49
August		50	57	46	51	42	49
September		46	51	42	41	41	44
October		52	54	45	45	46	48
November	50	49	51	45	51		49
December	41	49	47	50	42		46
Annual Average	45	50	49	48	48	46	48

³ Nephelometric Turbidity Units, measuring light scattering through a solution.

These weekly data were compared to the COP standard for turbidity. The following values represent the maximum 30-day average, the maximum weekly average, and the maximum daily maximum for the time period between October 1996 and October 2001:

	30-day Ave.	Weekly Ave.	Daily Max.
Turbidity	58 NTU	67 NTU	105 NTU

3. Light Transmittance. Increased suspended solids concentrations associated with municipal discharges can cause a decrease in light penetration in the water column. ... The applicant has been monitoring light transmittance in the offshore area to help in the evaluation of the COP standard. ... The overall effect is minimal relative to the range of natural variability at the... [monitoring] stations (Fig 2[Exhibit 2]).

4. Summary of Suspended Solids. The applicant has demonstrated through past performance the ability to meet effluent limitations for suspended solids and turbidity established by the COP. Our review of the offshore monitoring data, indicates that the outfall is not having a significant effect on dissolved oxygen or light transmittance. Limits for suspended solids and turbidity will be included in the revised NPDES permit to ensure continued compliance.

B. Dissolved Oxygen.

...EPA reviewed the effluent BOD data for the outfall for the period between October 1996 and October 2001. The average monthly BOD concentrations was 59 mg/l. The maximum monthly concentration during this time period was 76 mg/l. These numbers are well below the permit limit of 95 mg/l. The average monthly percent removal during this time period was 72%, the minimum monthly percent removal was 62%.

Table 6. Average monthly BOD percent removal in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		74	75	72	77	76
February		77	66	68	68	72
March		74	72	72	72	72
April		71	69	71	72	77
May		71	69	62	71	67
June		73	69	65	70	72
July		71	71	72	72	73
August		72	68	75	72	76
September		76	66	74	76	76
October	77	76	69	72	73	74
November		78	73	76	69	
December		79	76	76	76	
Annual Average		74	70	72	72	

The applicant has been monitoring dissolved oxygen concentrations to help in the evaluation of the COP standard. The data for the years 1999 and 2000 are presented in Figure 3. EPA has summarized these data relative to the COP standard of 10% (Table 7). Positive values in the table indicate that dissolved oxygen concentrations at the ZID station (WC-ZID) were depressed relative to the other water quality stations which might suggest an outfall effect. Negative values in the table indicate that the concentration around the outfall was higher than at the other stations and therefore should not be considered an outfall-related effect. EPA concludes that the outfall is not having an effect on dissolved oxygen concentrations.

Table 7. Percent reduction in dissolved oxygen concentration at edge of zone of initial dilution (WC-ZID) integrated over water column relative to other water quality stations (Negative values in chart indicate that concentrations at WC-ZID were higher than other stations).

Quarter	WC-ZID vs B1	WC-ZID vs B2	WC-ZID vs B3	WC-ZID vs B4	WC-ZID vs B5	WC-ZID vs B6
January 1999	-3%	-4%	-7%	-7%	-7%	-6%
April 1999	4%	4%	4%	6%	3%	3%
July 1999	1%	0%	-3%	0%	-4%	0%
October 1999	3%	4%	3%	3%	-2%	-4%
January 2000	4%	4%	4%	2%	3%	-1%
April 2000	9%	-1%	4%	-2%	0%	6%
July 2000	4%	4%	2%	-2%	-4%	4%
October 2000	1%	0%	2%	1%	0%	1%

The potential for outfall-related DO depressions was also evaluated with respect to 1) initial dilution 2) BOD exertion in the farfield 3) steady-state sediment oxygen demand and 4) oxygen demand due to sediment resuspension. The procedures for making these calculations are detailed in EPA's 301(h) Technical Support Document (EPA, 1982, 1994).

...

5. Summary of Dissolved Oxygen. *The outfall plume will not significantly affect ambient dissolved oxygen concentrations outside the zone of initial dilution of the outfall. This is based on our review of the results of predictive models (summarized in Table 8) and our review of ambient monitoring data (summarized in Table 7).*

Table 8. Estimates of worst-case dissolved oxygen depressions (mg/l) associated with the Goleta Outfall

Sources of potential oxygen demand	Goleta (1992)	EPA (1993)	Goleta (2000)
<i>Dissolved oxygen (DO)depression upon Initial dilution</i>	NA		0.07
<i>DO depression due to BOD exertion in the farfield</i>	0.03	0.01	NA
<i>DO depression due to steady state oxygen demand</i>	<0.01	0.01	0.037
<i>DO depression due to abrupt sediment resuspension</i>	<0.01	0.03	0.075

Concerning biological impacts, EPA states:

E. Conclusions on Balanced Indigenous Population. EPA concludes that a balanced indigenous population is being maintained in the vicinity of the outfall and recreational activities are protected. This conclusion is based on the following considerations:

- 1. The discharge meets all COP standards and EPA water quality criteria. EPA models indicate that the outfall design and location result in a high degree of initial dilution. The applicant's discharge meets effluent limitations specified in the existing permit.*
- 2. The increase in solids deposition near the outfall is relatively small and there is no indication of organic accumulation in the vicinity of the outfall. Thus, benthic communities in the vicinity of the outfall are not likely degraded by the discharge.*
- 3. Benthic communities in the vicinity of the outfall are not being degraded by sediment contamination. Organic pollutants in sediments are below detection levels and metals are at background levels.*
- 4. Benthic monitoring data does not indicate any significant changes in species composition, number of species, abundance, diversity, evenness, or dominance which would suggest an outfall-related impact. Fish populations are not likely to be impacted by the quality and quantity of effluent being discharged.*
- 5. Effluent coliform data indicates that the outfall is not a major source of bacteria. Bacterial monitoring in the offshore and along the beaches indicate that water quality standards are being met.*

In addition to the above analyses, EPA and the RWQCB staff have provided an updated analysis, which is attached as Exhibit 6.

3. Commission Conclusion. The information submitted by the Goleta Sanitary District, along with the supporting analysis and information from EPA and the RWQCB, supports the Sanitary District's request for a continued secondary treatment waiver. Historically, the Commission has generally concurred with consistency certifications for these types of waivers and waiver renewals, and found applicable water quality and marine resource policies of the Coastal Act to be met, when: (1) adequate monitoring is in place; and (2) EPA and the appropriate RWQCB have determined that the discharger's effluent complies with the applicable Clean Water Act and Ocean Plan requirements. In this case, the Sanitary District has monitored its discharges since its initial waiver was granted, and these monitoring efforts support the Sanitary District's conclusions that its discharges meet the applicable water quality and marine resource requirements. Moreover, the stringent monitoring as required under Section 301(h) will be continued.

More importantly, the Sanitary District has now agreed to upgrade its facilities to provide for secondary treatment of its discharges, as described in the November 10, 2004, settlement agreement between the District and the RWQCB (Exhibit 4). This agreement provides for an upgrade to full secondary treatment within ten years.

Based on EPA's analysis, including a review of plant performance and modeling efforts performed since the previous permit was issued, the outfall does not appear to be resulting in any significant reduction in light transmissivity, any biologically significant changes in benthic community structure in the vicinity of the outfall (beyond the zone of initial dilution), or any significant changes in fish populations or fish diseases in the area. EPA and the RWQCB have also addressed a historic Commission's historic concern over toxics by continuing to include requirements for the implementation of a pollution prevention program to minimize discharge of toxic pollutants into the sewer system. These factors, combined with the District's commitment to upgrade its system to full secondary treatment within ten years, enable the Commission to conclude that the Goleta Sanitary District's discharges would be consistent with the applicable marine resource and water quality provisions (Sections 30230 and 30231) of the Coastal Act.

B. Commercial Fishing/Recreation. Section 30230 of the Coastal Act, quoted in full on page 16 above, includes a requirement that:

Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

The Coastal Act also contains more specific policies protecting commercial and recreational fishing; Section 30234 provides:

Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

Section 30234.5 provides:

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

The Coastal Act also protects public recreation (such as surfing and other water-contact recreation). Section 30213 provides, in part:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided.

Section 30220 provides:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

As discussed in the water quality/marine resource section above, the Sanitary District's monitoring efforts over the past five years are sufficient to enable a determination that commercial/recreational fishing and other recreational concerns are met. EPA states concerning effects on fish populations:

Given the relatively small volume of discharge and small area of potential impact, EPA finds that potential for impacts to local fish populations to be unlikely. This is supported by the low concentrations of toxics in the effluent which ensure that water quality standards are being met and the lack of impact to the benthic communities.

Concerning recreational diving, EPA states:

D. Impact of Discharge on Recreational Activities. Under section 125.62(d), the applicant's proposed modified discharge must allow for the attainment or maintenance of water quality which allows for recreational activities at and beyond the zone of initial dilution, including, without limitation, swimming, diving, boating, fishing, picnicking and sports activities along shorelines and beaches.

The COP applies the following bacterial standards for shoreline and body contact sports areas:

Total Coliform bacteria: Greater than 80% of samples in a 30-day period shall be less than 1,000 MPN per 100 ml at each sampling station. No single sample, when verified by a repeat sample within 48 hours, shall be greater than 10,000 MPN per 100 ml.

Fecal Coliform bacteria: The geometric mean shall not exceed 200 MPN per 100 ml based on at least 5 samples in any 30-day period and not more than 10% of the total samples during any 60-day period shall exceed 400 MPN per 100 ml.

In shellfish harvest areas, total coliform shall not exceed a median value of 70 MPN per 100 ml and not more than 10% of the samples shall exceed 230 MPN per 100 ml.

The permit requires the Goleta Sanitation District to disinfect the effluent such that no more than 10% of the final effluent samples in any monthly period shall exceed a total coliform density of 2,400 MPN/100 ml, and no sample shall exceed 16,000 MPN/100 ml. Assuming a dilution factor of 122:1 an effluent concentration of 2400 MPN would result in a expected plume concentration in the plume is around 20 MPN/100 ml. An effluent concentration of 16,000/100 ml would result in a plume concentration of 132 MPN/100 ml. The permit limits are designed to ensure that the outfall does not affect either recreational use or shell fish harvest uses in the area.

The effluent is monitored for total coliform, fecal coliform and enterococcus five days per week. ... EPA's review of the applicant's data indicates that these limits have been consistently met throughout the permit period.

...

The applicant also monitors the shoreline along the beach for both total coliforms, fecal coliforms and enterococcus seven stations as part of their NPDES permit (See ...[Exhibit] 2). The monitoring at Goleta Slough is not part of the NPDES permit but is done by the applicant to evaluate the influence of runoff from the slough on shoreline bacterial concentrations.

...almost all of the exceedances of threshold at [shoreline] station E are associated with threshold exceedances at Goleta Slough This suggests that non-point sources from Goleta Slough contribute to shoreline bacterial contamination. ...

EPA concludes that bacterial concentrations associated with the discharge of waste from the Goleta outfall is not likely to affect recreational uses in the Goleta area. This is based on our review of effluent data relative to the COP and Basin Plan standards as well as water quality data from the offshore, nearshore and shoreline areas.

The Commission notes that the average effluent coliform concentrations over the five years period of 1996-2001 (total coliform averaged 57 MPN/100), without any dilution, were well below California Ocean Plan standards for body contact areas. (The 2003 average was 50 MPN/100.) Based on the above analysis and the information contained in the previous section of this report, with continued monitoring, and with the Sanitary District's commitment to upgrade its facilities to provide for secondary treatment of its discharges within 10 years (as described in the November 10, 2004, settlement agreement (Exhibit 4)), the Commission concludes that the discharges would be consistent with the applicable commercial and recreational fishing and general recreation policies (Sections 30230, 30234, 30234.5, 30213, and 30220) of the Coastal Act.

IX. SUBSTANTIVE FILE DOCUMENTS:

1. Consistency Certification No. CC-62-91/Coastal Development Permit No. 6-91-217 (City of San Diego, Point Loma outfall extension).
2. No Effects Determination NE-94-95 (City of San Diego, secondary treatment waiver).
3. RWQCB Tentative Order No. 96-21, Draft NPDES Permit No. CA0048160, Goleta Sanitary District, Order No. R3-2004-0129, and Settlement Agreement between RWQCB and Goleta Sanitary District dated November 10, 2004.
4. Consistency Certifications for secondary treatment waiver renewals, CC-88-92 and CC-123-98 (City of Morro Bay), CC-126-96 (Goleta Sanitary District), CC-3-98 (County Sanitation Districts of Orange County (CSDOC)), and CC-10-02 and CC-28-02 (City of San Diego).
5. Consistency Determination No. CD-137-96 (IBWC) International Boundary and Water Commission International Wastewater Treatment Plant Interim Operation.

X. Exhibits:

1. Area Map
2. Sampling Stations
3. EPA Analysis, 1/12/02
4. Settlement Agreement, RWQCB/Goleta Sanitary District, 11/10/04
5. California Ocean Plan
6. RWQCB Decision, Order No. R3-2004-0129, 11/19/04

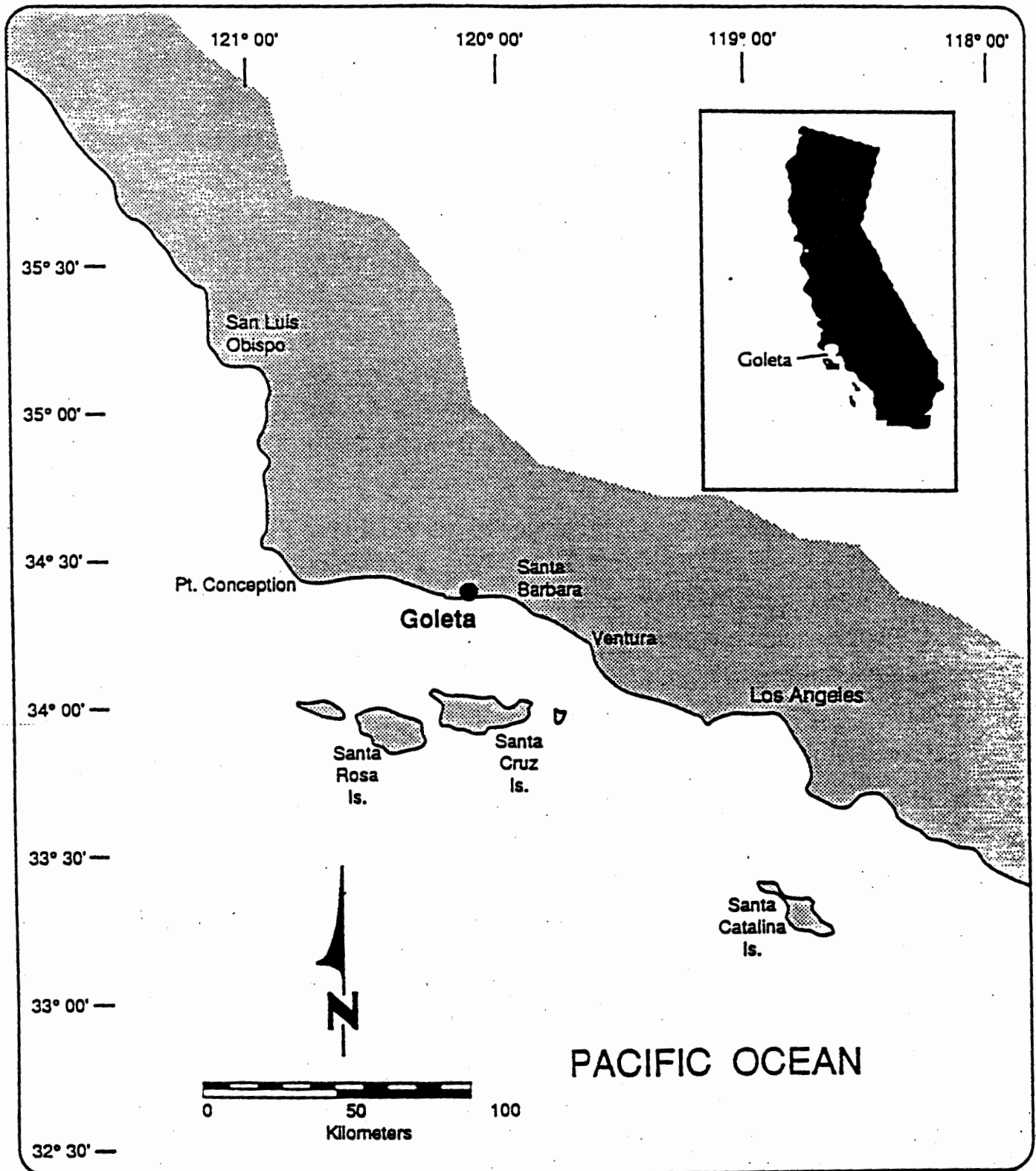


Figure 1. Location of the Goleta Sanitary District Wastewater Treatment

EXHIBIT NO. 1

APPLICATION NO.

CC-13-02

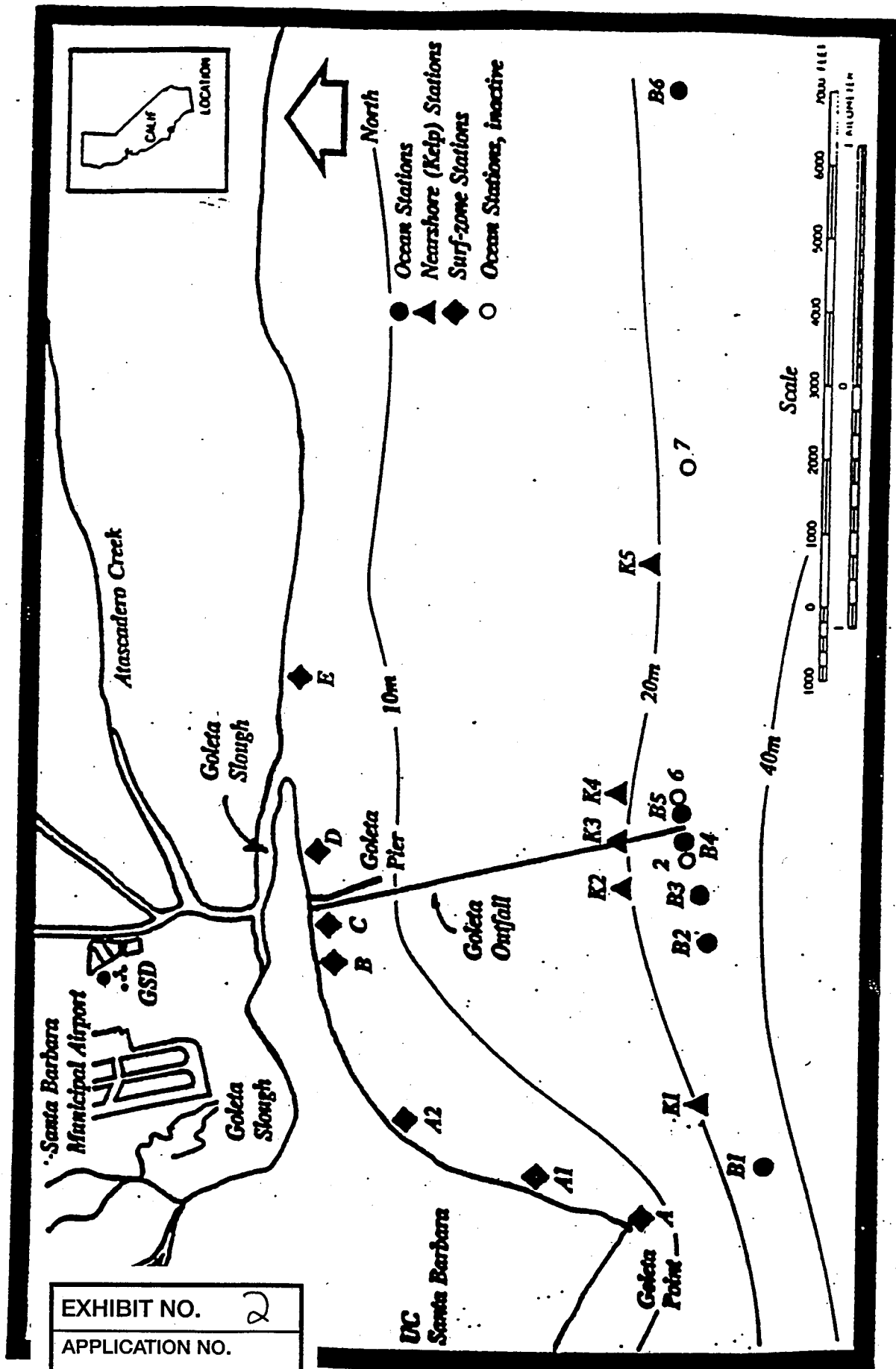


EXHIBIT NO.	2
APPLICATION NO.	
CC-13-02	
Sampling Stations	

ATTACHMENT A

Attachment A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3801

RECEIVED

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CALIFORNIA
COASTAL COMMISSION
REGIONAL ADMINISTRATOR

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Phone #		Phone #	805 542 4649		
Fax #	415 904 5400	Fax #			

In Re:

GOLETA SANITARY DISTRICT
APPLICATION FOR A MODIFIED
NPDES PERMIT UNDER SECTION
301(h) OF THE CLEAN WATER ACT


TENTATIVE DECISION OF THE
REGIONAL ADMINISTRATOR
PURSUANT TO 40 CFR PART 125,
SUBPART G

I have reviewed the attached evaluation analyzing the merits of the application of the Goleta Sanitary District (GSD) requesting a variance from secondary treatment requirements of the Clean Water Act (the Act) pursuant to section 301(h). It is my tentative decision that GSD be granted a variance in accordance with the terms, conditions and limitations of the attached evaluation, subject to concurrence by the State of California with the granting of a variance as required by section 301(h) of the Act. USEPA Region 9 will prepare a draft modified National Pollutant Discharge Elimination System (NPDES) permit in accordance with this decision.

Because my decision is based on available evidence specific to this particular discharge, it is not intended to assess the need for secondary treatment in general, nor does it reflect on the necessity for secondary treatment by other publicly owned treatment works discharging to the marine environment. This decision and the NPDES permit implementing this decision are subject to revision on the basis of subsequently acquired information relating to the impacts of the less-than-secondary discharge on the marine environment.

Under the procedures of the Permit Regulations, 40 CFR Part 124 (45 Fed. Reg. 33848 *et seq.*) public notice, comment and administrative appeals regarding this decision and accompanying draft NPDES permit will be made available to interested persons.

Dated: 17 JANUARY 2002


Wayne Nasti
Regional Administrator

3/18/02 10:00 AM
SANDY L. GORDON, CA

02 JAN 25 PM 11

EXHIBIT NO. 3

APPLICATION NO.

cc - 13 - 02

EPA Analysis

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INTRODUCTION

The Goleta Sanitary District (the applicant) has requested a variance under section 301(h) of the Clean Water Act, 33 U.S.C. section 1311(h), from the secondary treatment requirements contained in section 301(b)(1)(B) of the Act, 33 U.S.C. section 1311(b)(1)(B). The variance is being sought for the Goleta Wastewater Treatment Plant, which is a publicly owned treatment works (POTW). The applicant is seeking permit renewal for a variance from secondary treatment requirements for the discharge of sewage into the Pacific Ocean located off of Central California. This document presents Findings, Conclusions, and Recommendations of the U.S. Environmental Protection Agency (EPA) Region 9, Water Division regarding the compliance of the applicant's proposed discharge with the criteria set forth in section 301(h) of the Act as implemented by regulations contained in 40 CFR Part 125, Subpart G (59 Fed. Reg. 40642, August 9, 1994).

Secondary treatment is defined in regulations (40 CFR Part 133) in terms of effluent quality for suspended solids (SS), biochemical oxygen demand (BOD) and pH. The secondary treatment requirements for SS, BOD and pH are listed below:

SS: (1) The 30-day average shall not exceed 30 mg/l. (2) The 7-day average shall not exceed 45 mg/l. (3) The 30-day average percent removal shall not be less than 85%;

BOD: (1) The 30-day average shall not exceed 30 mg/l. (2) The 7-day average shall not exceed 45 mg/l. (3) The 30-day average percent removal shall not be less than 85%;

pH: The effluent limits for pH shall be maintained within the limits of 6.0 to 9.0 pH units.

A modified NPDES permit was issued to the Goleta Sanitary District in 1985 (Permit No. CA0048160) by the U.S. Environmental Protection Agency (EPA), Region 9 and the California Regional Water Quality Control Board, Central Coast. The modified NPDES permit was renewed in July 26, 1996. This permit expired on July 26, 2001 and was administratively extended until the decision herein.

The current permit contains the following limits for SS and BOD:

SS: (1) A 30-day average for suspended solids of 63 mg/l. (2) The maximum allowable at any time shall not exceed 100 mg/l. (3) The 30-day average percent removal shall not be less than 75%.

BOD: (1) The 30-day average shall not exceed 98 mg/l. (2) The maximum allowable at any time shall not exceed 150 mg/l.

The applicant submitted a renewal application for a modification of secondary treatment requirements on January 23, 2001 requesting a continued variance for SS and BOD based on the current effluent limitations and characteristics.

The Goleta Wastewater Treatment Plant provides full primary and partial secondary wastewater

treatment for a service population of about 80,000. The application is based on an average dry-weather flow of 7.7 million gallons per day (MGD) projected for the end of permit term (2005). Based on the definition in 40 CFR 125.58(c), the applicant is considered to be a large discharger.

DECISION CRITERIA

Under section 301(b)(1)(B) of the Act, 33 U.S.C. section 1311(b)(1)(B), publicly owned treatment works (POTWs) in existence on July 1, 1977, were required to meet effluent limitations based upon secondary treatment as defined by the Administrator of EPA. Secondary treatment has been defined by the Administrator in terms of three parameters: biochemical oxygen demand (BOD), suspended solids (SS), and pH. Uniform national effluent limitations for these pollutants were promulgated and included in National Pollutant Discharge Elimination System (NPDES) permits for POTWS issued under section 402 of the Act. POTWs were required to comply with these limitations by July 1, 1977.

Congress subsequently amended the Act, adding section 301(h), which authorizes the Administrator, with State concurrence, to issue NPDES permits which modify the secondary treatment requirements of the Act [P.L. 95-217, 91 Stat. 1566, as amended by, P.L. 97-117, 95 Stat. 1623; and section 303 of the Water Quality Act (WQA) of 1987]. Section 301(h) provides that the Administrator, with the concurrence of the State, may issue a permit under section 402 [of the Act] which modifies the requirements of subsection (b)(1)(B) of this section [the secondary treatment requirements] with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters, if the applicant demonstrates to the satisfaction of the Administrator that:

- (1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 304(a)(6) of this Act;
- (2) 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 the protection and propagation of a balanced, indigenous population (BIP) of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;
- (3) 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 the monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;
- (4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- (5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- (6) 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;

(7) 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;

(8) 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;

(9) 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.

For the purposes of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into saline estuarine waters where there is strong tidal movement or other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this subsection, and section 101(a)(2) of this Act. For the purposes of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit under this subsection which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced, indigenous population of shellfish, fish, and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish, and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge. Notwithstanding any other provisions of this subsection, no permit may be issued under this subsection for discharge of

a pollutant into the New York Bight Apex consisting of the ocean waters of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.

EPA regulations implementing section 301(h) provide that a 301(h) modified NPDES permit may not be issued in violation of 40 CFR 125.59(b), which requires among other things, compliance with the provisions of the Coastal Zone Management Act (16 U.S.C. 1451 *et seq.*), the Endangered Species Act (16 U.S.C. 1531 *et seq.*), the Marine Protection, Research, and Sanctuaries Act (16 U.S.C. 1431 *et seq.*), and all other applicable provisions of State or Federal law or Executive Order. In the discussion which follows, the data submitted by the applicant are analyzed in the context of the statutory and regulatory criteria.

SUMMARY OF FINDINGS

Based upon review of the data, references, and empirical evidence furnished in the January 23, 2001 re-application, and associated monitoring reports, the EPA Region 9 makes the following findings with regard to compliance with the statutory and regulatory criteria:

1. The applicant's proposed discharge will comply with the California Ocean Plan water quality standards for suspended solids and dissolved oxygen, and pH. [Section 301(h)(1), 40 CFR 125.61].
2. The applicant's proposed discharge will not adversely impact public water supplies or interfere with the protection and propagation of a balanced, indigenous population of fish, shellfish, and wildlife. [Section 301(h)(2), 40 CFR 125.62].
3. The existing monitoring program is sufficient to assess the impacts associated with the outfall. EPA and the Central Coast Regional Water Quality Control Board have made minor changes to the influent and effluent monitoring requirements that are reflected in the draft permit. [Section 301(h)(3), 40 CFR 125.63].
4. The applicant's proposed discharge will not result in any additional treatment requirements on any other point or nonpoint source. [Section 301(h)(4), 40 CFR 125.64].
5. The applicant has an approved pretreatment program which has been in effect since 1983. [Section 301(h)(5), 40 CFR 125.66 and 125.68].
6. The applicant addresses the urban area pretreatment requirement by establishing applicable local limits for each toxic pollutant introduced in the effluent by industrial sources. [Section 301(h)(6), 40 CFR 125.65].
7. The applicant has a nonindustrial source control program which has been in effect since 1986 to characterize pollutants from residential areas and a public education program encouraging waste minimization/source reduction programs to limit entrance of toxic pollutants and pesticides into the treatment plant. [Section 301(h)(7), 40 CFR 125.66].

8. There will be no substantially increased discharge from the point source of the pollutants to which the variance would apply (BOD and SS), above those which would be specified in the section 301(h) permit. [Section 301(h)(8), 40 CFR 125.67].

9. The applicant has demonstrated through past performance that its treatment facilities will be removing more than 30% of the influent five-day biochemical oxygen demand (BOD) and suspended solids. The applicant will be in compliance with all applicable Federal water quality criteria, as established under Section 304(a) of the Clean Water Act. [Section 301(h)(9), 40 CFR 125.60]

10. In a letter dated November 30, 2000, the Central Coast Regional Water Quality Control Board made a determination that the NPDES permit contains provisions to ensure that the discharge will meet water quality standards for the Pacific Ocean and not require imposition of additional treatment or control requirements to be applied to other dischargers. Issuance of final waste discharge requirements will constitute the State's certification and concurrence under 40 CFR 124.54.

CONCLUSION

It is concluded that the applicant's proposed discharge will comply with the requirements of section 301(h) and 40 CFR Part 125, subpart G, as stated above.

RECOMMENDATION

It is recommended that the applicant be allowed to retain the 301(h) variance in accordance with the above findings, contingent upon the satisfaction of the following conditions, and that a National Pollutant Discharge Elimination System (NPDES) Permit be renewed in accordance with the applicable provisions of 40 CFR Parts 122-125. The applicant's renewal of a section 301(h) variance is contingent upon:

1. The California Coastal Commission determination that the applicant's proposal is consistent with the relevant State Coastal Zone Program [40 CFR 125.59(b)(3)].
2. Findings from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that operation of the discharge will not adversely impact threatened or endangered species or critical habitats pursuant to the Endangered Species Act [40 CFR 125.59(b)(3)].
3. Final concurrence from the Central Coast Regional Water Quality Control Board on the approval of a section 301(h) variance [40 CFR 125.59(i)(2)].

The draft NPDES permit is to include, in addition to all applicable terms and conditions required under 40 CFR Part 122, the following terms and conditions specific to section 301(h):

1. Final effluent limitations (including flows, concentrations and loadings) in accordance with the terms and conditions of this document.

2. Reporting requirements in accordance with 40 CFR 125.68(d). These include reporting the monitoring results at the prescribed frequency in the approved monitoring program.

DESCRIPTION OF THE TREATMENT SYSTEM

The Goleta Wastewater Treatment Plant discharges a blend of primary and secondary treated effluent through an ocean outfall located approximately 1 mile offshore in about 87 feet of water. The raw waste water is pumped through a bar screen to remove large debris. This flows to three primary sedimentation basins. A portion of the effluent stream goes through secondary treatment, consisting of biofiltration and secondary sedimentation. A portion of the secondary flow (up to 3 MGD) may be diverted to the water reclamation facility. The remaining secondary flow is combined with the primary flows where it is chlorinated and dechlorinated before discharge to the ocean. The outfall terminates in a 280-foot long multiport (34 port) diffuser.

Sludge from the primary process are treated through anaerobic digestion (55 days), sent to stabilization basins (roughly 2 years). The dried sludge is made available as Class A biosolids or as a soil amendment for agricultural lands.

The plant is designed to accommodate an average dry weather flow of 9.0 MGD and a peak wet weather flow of 25.4 MGD.

APPLICATION OF STATUTORY AND REGULATORY CRITERIA

1. Compliance with the California State Water Quality Standards [Section 301(h)(1), 40 CFR 125.61]

Under 40 CFR 125.61, which implements section 301(h)(1), there must be a water quality standard applicable to the pollutants for which the modification is requested and the applicant must demonstrate that the proposed modified discharge will comply with these standards. The applicant must obtain a favorable State determination that the proposed discharge will comply with applicable provisions of State law including water quality standards. The applicable water quality standards are established in the California Ocean Plan (SWRCB, 2001).

The applicant has requested modified requirements for biochemical oxygen demand (BOD) and suspended solids (SS). The applicant must demonstrate that it meets (and will continue to meet through the end-of-permit period) all effluent limits for suspended solids and turbidity and meets ambient standards for turbidity, light transmittance, and dissolved oxygen.

A. Suspended Solids.

1. Solids Removal. The California Ocean Plan (COP) calls for at least 75% removal of suspended solids (as a 30-day average). The applicant measures the suspended solids concentrations in the influent and effluent five times per week. These monitoring results are summarized below (Table 1 and 2). The average monthly suspended solids concentration is 40 mg/l. The maximum monthly average was 56 mg/l. The average monthly percent removal over this same time period was 86%. The minimum monthly percent removal over this time period was 81%.

Table 1. Average monthly suspended solids concentration (mg/l) in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		41	38	42	34	36
February		39	50	47	43	40
March		39	35	46	45	43
April		41	38	45	43	39
May		40	42	56	43	48
June		37	39	41	39	44
July		39	41	37	38	44
August		37	43	36	40	42
September		34	47	36	31	43
October	35	39	55	32	36	49
November	37	34	48	32	44	
December	32	35	44	32	34	
Annual Average	35	38	43	40	39	43

Table 2. Average monthly percent removal of suspended solids concentration in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		87	86	87	88	88
February		87	84	88	85	85
March		86	86	89	82	83
April		85	86	89	83	86
May		87	84	85	86	83
June		87	86	89	89	84
July		87	83	91	86	84
August		86	81	89	87	85
September		88	83	86	89	85
October	88	85	82	87	89	83
November	89	88	84	90	88	
December	89	90	88	88	86	
Annual Average	89	87	84	88		

2. Turbidity. The COP establishes the following effluent limits for turbidity.

	30-day Avg.	Weekly Avg.	Daily Max.
Turbidity	75 NTU	100 NTU	225 NTU

These were established as permit limits in the existing permit. Effluent turbidity is measured by the applicant five times per week. These data are summarized in Table 3. These weekly data were compared to the COP standard for turbidity. The following values represent the maximum 30-day average, the maximum weekly average, and the maximum daily maximum for the time period between October 1996 and October 2001:

	30-day Avg.	Weekly Avg.	Daily Max.
Turbidity	58 NTU	67 NTU	105 NTU

Table 3. Average monthly turbidity concentration (NTU) in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001	Average
January		42	48	48	43	38	44
February		51	46	55	47	46	49
March		53	38	53	45	47	47
April		57	42	37	47	48	46
May		53	51	56	53	55	54
June		54	48	51	52	53	51
July		50	52	49	51	45	49
August		50	57	46	51	42	49
September		46	51	42	41	41	44
October		52	54	45	45	46	48
November	50	49	51	45	51		49
December	41	49	47	50	42		46
Annual Average	45	50	49	48	48	46	48

3. **Light Transmittance.** Increased suspended solids concentrations associated with municipal discharges can cause a decrease in light penetration in the water column. The COP states that "natural light shall not be significantly reduced at any point outside the zone of initial dilution as the result of the discharge." The applicant has been monitoring light transmittance in the offshore area to help in the evaluation of the COP standard (See Fig. 1 for station locations). The light transmittance at the zone of initial dilution integrated over the entire water column is compared to light transmittance at six other water quality stations and presented as percent reduction relative to the other six stations (Table 4). Light transmittance at the zone of initial dilution is reduced by a few percentage points. The overall effect is minimal relative to the range of natural variability at these stations.

Table 4. Percent reduction in light transmittance at edge of zone of initial dilution (WC-ZID) integrated over the the water column relative to other water quality stations (Negative values in table indicate that light transmittance WC-ZID was higher than other stations).

Quarter	WC-ZID vs B1	WC-ZID vs B2	WC-ZID vs B3	WC-ZID vs B4	WC-ZID vs B5	WC-ZID vs B6
January 1999	3%	0%	0%	-1%	1%	-2%
April 1999	1%	2%	2%	2%	2%	1%
July 1999	2%	3%	2%	2%	3%	-1%
October 1999	8%	6%	5%	6%	7%	6%
January 2000	1%	1%	2%	2%	3%	0%
April 2000	1%	2%	1%	0%	2%	0%
July 2000	1%	-1%	-2%	2%	-2%	3%
October 2000	0%	0%	-1%	-3%	-2%	1%

4. **Summary of Suspended Solids.** The applicant has demonstrated through past performance the ability to meet effluent limitations for suspended solids and turbidity established in the COP. Our

review of the offshore monitoring data indicates that the outfall is not having a significant effect on dissolved oxygen or light transmittance. Limits for suspended solids and turbidity will be included in the revised NPDES permit to ensure continued compliance.

B. Dissolved Oxygen.

The COP does not have an effluent limit for BOD. The COP provides that the "dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen-demanding waste materials."

EPA reviewed the effluent BOD data for the outfall for the period between October 1996 and October 2001. The average monthly BOD concentration was 59 mg/l. The maximum monthly concentration during this time period was 76 mg/l. These numbers are well below the permit limit of 95 mg/l. The average monthly percent removal during this time period was 72%, the minimum monthly percent removal was 62%.

Table 5. Average monthly BOD concentration (mg/l) in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		63	53	62	55	55
February		59	52	76	65	61
March		62	48	75	56	54
April		71	59	66	58	52
May		71	57	72	65	71
June		63	60	72	74	64
July		69	53	65	66	60
August		60	61	58	62	54
September		53	67	58	53	56
October		58	75	57	64	62
November	57	53	67	62	72	
December	47	45	60	57	58	
Annual Average	52	61	59	65	62	59

Table 6. Average monthly BOD percent removal in Goleta effluent.

Month	1996	1997	1998	1999	2000	2001
January		74	75	72	77	76
February		77	66	68	68	72
March		74	72	72	72	72
April		71	69	71	72	77
May		71	69	62	71	67
June		73	69	65	70	72
July		71	71	72	72	73
August		72	68	75	72	76
September		76	66	74	76	76
October	77	76	69	72	73	74
November		78	75	76	69	
December		79	76	76	76	
Annual Average		74	70	72	72	

The applicant has been monitoring dissolved oxygen concentrations to help in the evaluation of the COP standard. EPA has summarized these data relative to the COP standard of 10% (Table 7). Positive values in the table indicate that dissolved oxygen concentrations at the ZID station (WC-ZID) were lower than at other water quality stations which might suggest an outfall effect. Negative values in the table indicate that the concentration around the outfall was higher than at the other stations and therefore should not be considered an outfall-related effect. The differences between dissolved oxygen concentrations at the ZID station and other stations were less than the 10% and therefore in compliance with the COP standard. EPA concludes that the outfall is not having an effect on dissolved oxygen concentrations.

Table 7. Percent reduction in dissolved oxygen concentration at edge of zone of initial dilution (WC-ZID) integrated over water column relative to other water quality stations (Negative values in chart indicate that concentrations at WC-ZID were higher than other stations).

Quarter	WC-ZID vs B1	WC-ZID vs B2	WC-ZID vs B3	WC-ZID vs B4	WC-ZID vs B5	WC-ZID vs B6
January 1999	-3%	-4%	-7%	-7%	-7%	-6%
April 1999	4%	4%	4%	6%	3%	3%
July 1999	1%	0%	-3%	0%	-4%	0%
October 1999	3%	4%	3%	3%	-2%	-4%
January 2000	4%	4%	4%	2%	3%	-1%
April 2000	9%	-1%	4%	-2%	0%	6%
July 2000	4%	4%	2%	-2%	-4%	4%
October 2000	1%	0%	2%	1%	0%	1%

The potential for outfall-related DO depressions was also evaluated with respect to 1) initial dilution 2) BOD exertion in the farfield 3) steady-state sediment oxygen demand and 4) oxygen demand due to sediment resuspension. The procedures for making these calculations are detailed in EPA's 301(h) Technical Support Document (EPA, 1982, 1994).

1. **Dissolved Oxygen Depression Upon Initial Dilution.** The applicant predicted the dissolved oxygen demand following initial dilution to be 0.07 mg/l, assuming an immediate dissolved oxygen demand in the effluent of 2 mg/l, an ambient seawater concentration of 7.8 mg/l, and an initial dilution of 128:1. EPA re-evaluated this for a range of ambient concentrations and a range of initial dilutions (representing the 128:1 dilution factor used by the applicant, the 111:1 dilution factor used for COP compliance and the 55:1 used by EPA in this document to evaluate worst-case conditions). The results are presented graphically in Figure 2. The predicted DO depressions vary between 0.04 mg/l and a worst-case of 0.20 mg/l. Even under worst-case conditions the maximum predicted change is less than 3%.

2. **Dissolved Oxygen Depression Due to Biochemical Oxygen Demand in the Farfield.** Subsequent to initial dilution, dissolved oxygen in the water column is consumed by the BOD in the waste field. This issue was evaluated by the applicant and EPA in the 1993 permit application. Both the

applicant's estimate of 0.033 mg/l and EPA's estimate of 0.01 mg/l were minor relative to ambient concentrations and the 10% standard.

3. **Steady-State Sediment Oxygen Demand.** These estimates are based in part on sediment deposition modeling performed by the applicant (and discussed more fully in section 2.A.4). Previous estimates ranged from 0.0002 mg/l (Goleta, 1990) to 0.03 mg/l (EPA, 1993). Based on a design flow of 9.0 MGD, the applicant predicts a steady-state DO depression of 0.037 mg/l. DO concentrations of bottom water are typically above 6 mg/l. So the predicted reduction is less than 1%. EPA concludes that steady-state oxygen demand will not result in DO depressions greater than 10%.

4. **Sediment Demand Due to Sediment Resuspension.** Previous estimates of sediment DO demand associated with resuspension ranged from 0.002 mg/l (Goleta, 1990) to 0.03 mg/l (EPA, 1993). Based on more recent sediment modeling and an assumed flow rate of 9 MGD, the applicant predicted a maximum sediment DO demand of 0.075 mg/l. These calculations are based on the very conservative assumption that 90 days of accumulated sediment are resuspended into the water column. Oceanographic conditions capable of resuspending this quantity of sediment into the water column would also be associated with a well-mixed (and well-oxygenated) water column. Therefore it is unlikely that abrupt sediment resuspension would result in a 10% depression of dissolved oxygen concentrations.

5. **Summary of Dissolved Oxygen.** The outfall plume will not significantly affect ambient dissolved oxygen concentrations outside the zone of initial dilution of the outfall. This is based on our review of the results of predictive models (summarized in Table 8) and our review of ambient monitoring data (summarized in Table 7).

Table 8. Estimates of worst-case dissolved oxygen depressions (mg/l) associated with the Goleta Outfall

Sources of potential oxygen demand	Goleta (1990)	EPA (1993)	Goleta (2000)
Dissolved oxygen depression upon initial dilution	NA		0.07
Dissolved oxygen depression due to BOD exertion in the farfield	0.03	0.01	NA
Dissolved oxygen depression due to steady state oxygen demand	<0.01	0.01	0.037
Dissolved oxygen depression due to abrupt sediment resuspension	<0.01	0.03	0.075

C. pH Compliance.

The applicant has not requested a variance for pH. The COP states that "pH shall not be changed more than 0.2 units from that which occurs naturally." In addition, the COP requires that effluent pH be within 6.0 to 9.0 pH units at all times. This is the same as the secondary treatment requirement for pH. The applicant is not seeking a waiver from the pH requirement.

D. Conclusions on Applicable Water Quality Standards.

Based on the information provided by the applicant and a review of past performance, the discharge will be operated in a manner which ensures compliance with the State water quality standards relevant to suspended solids, BOD, and pH. This includes the effluent limits based on the COP for suspended solids (75% removal), turbidity (75 NTU) and pH (6.0 to 9.0) and the ambient standards for dissolved oxygen and light transmittance. The revised NPDES permit will contain effluent limitations for suspended solids, turbidity, BOD and pH to ensure continued compliance.

2. Protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities [Section 301(h)(2), 40 CFR 125.62].

A. Physical Characteristics of the Discharge.

1. Outfall/Diffuser and Initial Dilution. 40 CFR 125.62(a)(1) provides that the proposed outfall and diffuser must be located and designed to provide adequate initial dilution, dispersion, and transport of wastewater to meet all applicable water quality standards at and beyond the boundary of the zone of initial dilution. This evaluation is based on conditions during periods of maximum stratification; and during other periods when discharge characteristics, water quality, biological seasons, or oceanographic conditions indicate more critical situations may exist.

The COP states that "waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment." In the COP, minimum initial dilution is defined as the "lowest average initial dilution within any single month of the year." Dilution estimates are "based on observed waste flow characteristics, observed receiving water density structure and the assumption that no currents, of sufficient strength to influence the initial dilution process, flow across the discharge structure."

Based on modeling results done in 1993, the minimum monthly initial dilution was determined to be 122:1. This modeling was based on an average flow rate of 7.2 MGD. The applicant re-calculated the minimum monthly initial dilution using the EPA PLUMES model to evaluate dilution for flow rates of 7.7 MGD and 9.0 MGD, which correspond to the end-of-permit flow and the design capacity of the plant, respectively. The revised dilution factor is 111:1. This number is used in the current document and permit for evaluating compliance with the COP. EPA also established a critical initial dilution of 55:1 which is used throughout this document to assess worst-case conditions.

2. EPA Water Quality Criteria and State Water Quality Standards. State standards for a variety of toxic materials are established in the COP. The receiving water standards for the protection of marine aquatic life and the protection of human health (noncarcinogens and carcinogens) are listed in Table B of the COP. In addition, it must be shown that the discharge will not result in exceedances of EPA water quality criteria for those pollutants where there is no corresponding state water quality standard. EPA reviewed the results of monthly effluent monitoring from 1994 to 2000 (Table 9). Effluent limitations for the permit were developed assuming an initial dilution of 111:1. The actual effluent concentrations are well below the effluent limitations established in the permit.

Table 9. Summary of monthly effluent data for metals concentrations (µg/l) for 1994-2000.

	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Silver	Zinc
Range	2 - 10	0.2 - 5.0	1 - 8	5 - 82	0.7 - 7.0	0.02 - 0.50	5 - 50	0.5 - 17.0	20 - 120
ave	6	0.8	4.5	38	2.7	0.19	26	2.3	46
std dev	3	0.7	1.2	17	1.8	0.12	17	2.7	19
COP (2001) objective	8	1	2	3	2	0.04	5	0.7	20
Permit limit	560	110	220	110	220	442	560	78.4	1350

3. Dilution Water Recirculation. Under section 303(e) of the Water Quality Act of 1987, before a 301(h) permit may be issued for discharge of a pollutant into marine water, such marine waters must exhibit characteristics assuring that the water providing dilution does not contain significant amounts of previously discharged effluent from the treatment works.

4. Transport and Dispersion of Wastewater and Particulates. Accumulation of suspended (settleable) solids in and beyond the vicinity of the discharge can have adverse effects on biological communities. Following initial dilution, the diluted wastewater and particulate must be transported and dispersed so that water use areas and areas of biological sensitivity are not adversely affected [40 CFR 125.62(a)(2)].

In addition, the COP has narrative standards related to the deposition of outfall-related solids, the accumulation of organic material in sediments, and the concentrations of contaminants in sediments as these relate to biological communities around the outfall.

Solids Deposition. The COP states that "The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded." and that "The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life."

The applicant modeled sediment deposition around the outfall using two different methods. The first used a simplified model described in EPA's 1994 Amended Section 301(h) Technical Support Document (ATSD). In this model sedimentation is a simple function of the settling velocities of the various effluent particles and current velocities. The applicant used the particle settling velocities in the ATSD, average current velocities around the outfall (west of 9 cm/s, east of 4 cm/s, offshore 2 cm/sec, onshore 2 cm/sec), and a plume height of 12 meters. The results in the application were based on a flow rate of 7.7 MGD and an effluent solids concentration of 60 mg/l. These have been updated by the applicant to reflect the design flow rate of 9.0 MGD to assess the worst-case condition (Table 10).

Table 10. Summary of ATSD sediment deposition model results based on design capacity of 9 MGD.

Area of deposition (Km ²)	Solids deposition rate (g/m ² /d)	Organic deposition rate (g/m ² /d)	Steady state organic accumulation (g/m ²)	Peak 90-day organic accumulation (g/m ²)
0.61	0.174	0.140	13.963	8.286
60.7	0.006	0.005	0.505	0.300
169	0.001	0.001	0.102	0.061
6,079	<0.001	<0.001	0.005	0.003

The bulk of the particles that settle in the area near the outfall are in silt size range. The model predicts that the highest deposition rate of $0.174 \text{ g/m}^2/\text{d}$ occurs over an 0.61 Km^2 around the outfall. The predicted depositional pattern is an ellipse oriented in an east-west direction (1586 meters by 488 meters) and shifted slightly toward the west.

The applicant also used EPA's SEDDEP model to evaluate sediment deposition around the outfall. This model is more refined in that it has a more realistic particle distribution and allows for the use of more current information, and bathymetry. The results of this model are similar to the ATSD model. The maximum deposition rate of $0.15 \text{ g/m}^2/\text{d}$ occurs over a 1 Km^2 area near the outfall. The model predicts that most of the 85% of the settleable particles are deposited in a 4 Km^2 area around the outfall. The shape of the sedimentation field is an ellipse 1067 meters long and 366 meters wide. Based on mesocosm experiments in Narragansett Bay, loadings of organic carbon less than $0.1 \text{ g/m}^2/\text{d}$ are not likely to have any effect on benthic communities, loadings between $0.1 \text{ g/m}^2/\text{d}$ and $1.0 \text{ g/m}^2/\text{d}$ are thought to result in benthic enrichment, and loadings greater than $1.5 \text{ g/m}^2/\text{d}$ are thought to produce degraded conditions (Maughan and Oviatt, 1993). The organic carbon content of the organic matter associated with the outfall is around 26 to 36%.

As recommended in the ATSD, estimates of organic deposition were derived from the sediment deposition models by assuming that the deposits are 80% organic matter. Estimates of organic accumulation were derived assuming a decay rate of $0.01/\text{day}$. The simple model yields a steady state organic accumulation rate of 14.0 g/m^2 , with a peak 90-day deposition rate of 8.3 g/m^2 . The SEDDEP model yields a steady-state accumulation of 15.4 g/m^2 over the 1 Km^2 area with a peak 90-day deposition rate of 7.3 g/m^2 . These sediment models provide very conservative estimates of sediment accumulation because they do not account for any losses associated with resuspension of sediments. Empirical evidence suggests that steady-state organic accumulations less than 50 g/m^2 have minimal effects on benthic communities (EPA, 1982).

Contaminant Concentrations in Sediments. Contaminants associated with the effluent have the potential to accumulate in sediments. The COP states that "The concentration of toxics substances in marine sediments shall not be increased to levels that would degrade marine life." EPA reviewed sediment contaminant data collected by the applicant at six monitoring stations during the time period 1990 to 1999. The locations of the stations can be found in Figure 1 and Table 20. Stations B3 and B4 are 25 meters from the outfall and are considered ZID boundary stations. Stations B3 and B2 are considered nearfield stations and are located 250 meters and 500 meters upcoast of the outfall diffuser respectively. Station B1 is a farfield station located 1500 meters upcoast of the diffuser. Station B6 is a reference station located 3000 meters downcoast of the diffuser. The data are summarized in Table 11.

To assess the potential impacts to biological communities, these data were compared to sediment guidelines in the literature (Table 12). Although these guidelines are not regulatory in nature, they do provide some information on the concentrations where the potential for biological effects are likely to occur. The TELs and ERLs are thought to reflect concentrations which pose little risk of toxicity. When sediment concentrations are higher than PEL and ERM values there may be a potential for sediment toxicity and further investigation is warranted (Long et al., 1998).

The concentrations of copper, chromium, lead, and zinc were all below the NOAA ERI value (concentrations below which biological effects are unlikely). Concentrations of arsenic, mercury,

Table 11. Summary of sediment chemistry results ($\mu\text{g/g}$) for time period between April 1990 - October 1999

	Station B1	Station B2	Station B3	Station B4	Station B5	Station B6
BOD						
Avg.	341	341	289	392	326	289
Min.	77	72	75	100	91	76
Max.	650	660	590	960	660	650
TVS						
Avg.	33,362	30,742	25,600	22,908	25,731	25,242
Min.	18,000	16,000	15,000	13,000	12,000	16,000
Max.	119,000	100,000	71,000	56,000	102,000	67,000
TKN						
Avg.	508	436	332	416	318	417
Min.	120	140	110	148	54	89
Max.	1100	710	560	850	740	880
Arsenic						
Avg.	4.3	4.5	4.0	4.1	3.8	3.7
Min.	2.2	2.7	2.9	2.8	2.2	2.5
Max.	10.0	9.8	8.2	8.1	8.8	7.0
Cadmium						
Avg.	1.2	1.1	1.0	1.2	0.9	0.6
Min.	0.0	0.3	0.3	0.3	0.2	0.3
Max.	9.5	8.8	7.7	10.5	5.9	1.6
Chromium						
Avg.	18.2	20.6	18.8	17.6	17.6	18.7
Min.	9.9	14.3	12.0	10.0	11.0	9.2
Max.	32	34	27	28	31	31
Copper						
Avg.	6.7	8.0	6.1	7.3	6.3	5.1
Min.	2.9	5.0	4.0	3.8	3.2	1.9
Max.	13.0	20.6	11.0	14.0	13.0	10.0
Lead						
Avg.	4.8	5.4	4.7	5.3	4.8	4.3
Min.	1.5	2.7	1.8	2.7	2.3	2.4
Max.	9.0	10.0	7.9	9.0	9.1	7.1
Mercury						
Avg.	0.152	0.143	0.143	0.152	0.151	0.140
Min.	0.010	0.010	0.010	0.010	0.010	0.010
Max.	0.600	0.600	0.600	0.600	0.600	0.600
Nickel						
Avg.	18.1	19.9	17.4	15.5	15.9	16.8
Min.	11.0	14.0	12.1	10.8	10.7	7.3
Max.	32.0	37.0	26.0	26.0	31.0	30.0
Zinc						
Avg.	27.7	31.9	28.3	26.5	27.4	28.6
Min.	11.3	23.0	22.0	18.0	19.0	13.1
Max.	53.0	60.0	49.0	48.0	54.0	51.0

nickel (Figs. 3-5) were occasionally above the ERL but below the ERM (concentration above which biological effects are thought to be likely). Cadmium concentrations (Fig. 6) were on two occasions greater than the ERM and greater than the ERL on nine occasions. Two of these were greater than the ERM. The higher concentrations for arsenic, mercury, nickel and cadmium all occurred prior to 1995. Concentrations do not appear to be increasing over time and there is no obvious spatial pattern to suggest that the outfall is contributing to increased concentrations in the sediments.

EPA finds that concentrations of toxics in sediments are below levels that would degrade marine life. Concentrations at the ZID-boundary stations and the nearfield stations are similar to concentrations at the reference stations. The concentrations of contaminants are generally below threshold concentrations where biological effects are likely.

Table 12. Overview of numeric sediment quality guidelines (from NOAA SquiRTS, 1999).

Pollutant	TEL	ERL	PEL	ERM	AET
Arsenic ($\mu\text{g/g}$)	7.24	8.2	41.6	70	35
Cadmium ($\mu\text{g/g}$)	0.67	1.2	4.2	9.6	3.0
Chromium-total ($\mu\text{g/g}$)	52.3	81	160.4	370	260
Copper ($\mu\text{g/g}$)	18.7	34	108	270	390
Lead ($\mu\text{g/g}$)	30.2	46.7	112	218	400
Mercury ($\mu\text{g/g}$)	0.13	0.15	0.696	0.71	0.41
Nickel ($\mu\text{g/g}$)	15.9	20.9	42.8	51.6	110
Silver ($\mu\text{g/g}$)	0.73	1	1.77	3.7	3.1
Zinc ($\mu\text{g/g}$)	124	150	271	410	410
DDT-total ($\mu\text{g/kg}$)	3.89	1.58	51.7	46.1	11

TEL = threshold effects level; PEL = probable effects level; ERL = effects range low; ERM = effects range median; AET = apparent effects threshold

B. Impact of Discharge on Public Water Supplies. The applicant's discharge, alone or in combination with other pollutant sources, must allow for the attainment or maintenance of water quality which assures protection of public water supplies and must not interfere with the use of planned or existing public water supplies.

According to the applicant there are no existing seawater supply intakes in the area of the Goleta Sanitary District discharge. The desalination facility constructed in 1992 by the City of Santa Barbara (11 miles east of the outfall) is no longer operational. It has been mothballed and sections of the facility have been sold.

C. Biological Impact of the Discharge. The proposed modified discharge must allow for attainment or maintenance of water quality to protect a balance indigenous population (BIP) of shellfish, fish, and wildlife and the applicant must demonstrate that a BIP of shellfish, fish, and wildlife will exist in all areas beyond the zone of initial dilution (ZID) that might be affected by the proposed modified discharge.

A BIP is generally defined in the section 301(h) regulations [40 CFR 125.58(f)] as an *ecological community* which exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions. Consequently, for the purpose of 301(h), the term *population* should be interpreted to mean biological communities and the terms *shellfish, fish and wildlife* should be interpreted to include any or all biological communities that might be adversely affected by the discharge.

The COP states that "Marine communities, including vertebrate, invertebrate, and plant species shall not be degraded."

1. Benthic community structure. Benthic infaunal data were evaluated relative to (1) number of species per unit area, (2) number of individuals per unit area, (3) measures of community structure such as diversity, evenness and dominance, and (4) species composition. The data from the ZID boundary stations (Stations B4 and B5) and the nearfield stations (Stations B2, B3 and B6) were also evaluated relative to the range of variability at the reference station (Station B1). The benthic infaunal data is summarized below (Table 13)

Species Richness. A decrease in the number of benthic species near an outfall relative to a reference station would generally indicate an outfall-related effect. There does not appear to be any outfall-related trend in the number of benthic species (Fig. 7). The differences among stations are small relative to differences between seasons or years.

Table 13. Summary of Benthic Data (1990 to 1990)

	Station B1	Station B2	Station B3	Station B4	Station B5	Station B6
Number of Species						
Avg.	125	114	109	120	109	105
Min.	76	62	71	58	78	66
Max.	168	164	169	174	171	152
Abundance						
Avg.	661	567	509	663	456	451
Min.	98	231	241	132	253	180
Max.	1133	1197	1250	1344	1077	929
Diversity (H')						
Avg.	4.0	4.0	3.9	3.8	4.0	4.0
Min.	3.6	3.4	3.6	3.4	3.7	3.6
Max.	4.3	4.2	4.2	4.2	4.5	4.3
Richness						
Avg.	19	18	17	18	18	17
Min.	13	11	12	12	14	13
Max.	24	23	24	24	24	22
Dominance						
Avg.	33	34	33	31	34	32
Min.	21	23	23	23	23	21
Max.	46	41	44	41	55	45
ITI						
Avg.	76	81	79	74	77	81
Min.	61	68	68	58	70	69
Max.	84	90	89	86	86	89

Benthic abundance. Benthic abundances are generally predicted to increase in response to organic enrichment. This enrichment is not generally considered adverse unless it is accompanied by a reduction in the number of species. At high levels of organic enrichment, the number of species may begin to

decline. High abundances associated with reduced number of species would be considered an indication of an adverse outfall-related effect. Where organic enrichment results in anoxic conditions, benthic abundances would be predicted to decrease. Such a decrease in abundances would be indicative of a degraded condition. Benthic abundances near the outfall are similar to those observed at other stations (Fig. 8).

Other Measures of Community Structure. Diversity, species richness and dominance are three common measures used to evaluate changes in the relative abundance of species. The infaunal trophic index (ITI) is a benthic index which incorporates the abundance of certain species that are thought to be either pollutant tolerant or pollutant sensitive (Word, 1978, 1980).

Species diversity (H') combines species richness and the relative abundances of species. Low diversity near the outfall relative to the reference station would indicate an outfall related effect. Although diversity has been variable over time, there are no spatial or temporal trends which would indicate an outfall-related effect (Fig. 9). Species diversity values at the ZID and nearfield stations are similar to those at the reference station.

One simple measure of dominance is the number of species representing 75% of the total abundance in a given sample (Swartz, 1978). Increased dominance by opportunistic or pollution tolerant species (resulting in fewer species comprising 75% of the sample abundance) would be indicative of an outfall effect. No such pattern is observed around the outfall.

The ITI was originally developed for assessing impacts associated with sewage discharges. It is scaled from 0 to 100, higher values represent good conditions lower values represent more degraded conditions. There does not appear to be any pattern in ITI abundances to suggest that the outfall is having a significant effect on species composition (Fig. 10).

EPA finds that the outfall is not degrading the benthic community. This conclusion is based on the lack of any apparent outfall-related effect on number of species, abundance, or any other measures of community structure. Species composition in and around the outfall reflects organisms that are typical of reference conditions.

2. Fish. Commercial and recreational fish species are present in the area of the outfall and likely to be exposed to some degree, to the wastewater being discharged.

The applicant conducts duplicate trawls for fish on an annual basis from two stations (Fig. 1). Station TB3 is located near the diffuser. Station TB6 is located 3000 meters east (downcoast) of the diffuser. Community measures from the annual trawls are summarized in (Table 14) and presented graphically in Figures 11 - 14. Station TB3 had slightly higher lower number of species, abundance, and diversity and slightly higher biomass than TB6. These differences are well within the range of variability. There is no significant difference in fish community parameters between Station TB6 and TB3.

To assess the potential for bioaccumulation of toxics in fish, the muscle and liver tissue of speckled sanddab (*Citharichthys stigmaeus*) collected during the trawl surveys were analyzed for a variety of contaminants. These results are summarized below (Table 15). We compare concentrations from fish collected near the outfall (Station TB3) with concentrations from fish caught at the control station (TB6). Where applicable the data were compared to Food and Drug Administration (FDA) action levels and EPA's risk-based screening numbers for consumption of fish (EPA, 2000).

Table 14. Summary of annual fish trawl data (1990 - 1999)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Ave	SD
SPECIES (number of species per trawl)													
TB3	Min	7	5	13	5	6	11	5	4	3	7	8	2.9
	Max	8	8	14	6	7	14	8	8	6	9		
TB6	Min	10	4	10	5	8	12	5	6	4	10	9	3.5
	Max	10	14	16	13	9	13	8	9	4	10		
ABUNDANCE (number of fish per trawl)													
TB3	Min	19	52	65	19	128	283	148	80	43	75	116	88
	Max	31	168	81	34	141	308	193	152	81	228		
TB6	Min	89	32	145	25	169	169	48	262	24	37	126	109
	Max	153	130	188	39	356	228	87	263	30	39		
BIOMASS (kg/trawl)													
TB3	Min	0.54	0.49	0.79	0.48	0.49	3.85	5.11	15.8	1.05	0.75	3.4	4.4
	Max	2.36	4.10	2.21	0.78	0.55	3.85	5.11	15.8	1.23	2.97		
TB6	Min	2.91	1.25	2.35	0.35	1.30	5.88	1.32	1.82	0.28	0.34	1.9	1.6
	Max	2.92	2.40	2.35	1.28	1.76	5.88	1.32	1.82	0.29	0.53		
DIVERSITY													
TB3	Min	1.30	0.58	1.67	1.27	0.87	1.27	0.76		0.57	1.07	1.2	0.3
	Max	1.46	1.15	1.78	1.35	1.02	1.48	0.99		1.07	1.09		
TB6	Min	1.71	0.58	0.80	1.00	0.88	1.14	1.22		1.03	1.17	1.3	0.5
	Max	1.79	1.10	0.88	2.38	1.31	1.41	1.27		1.04	1.80		

Table 15. Summary of contaminant concentrations (ug/g) in muscle tissue of speckled sanddab (1990-1999)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Ave	SD
Arsenic												
TB3	2.1		18.0	1.0	3.8	2.6	4.9	0.5	10.3	3.9	5.2	5.6
TB6	1.8		21.4	0.8	2.4	2.8	4.3	0.4	6.4	2.3	4.7	6.5
Cadmium												
TB3				0.2	3.8	0.3	0.1	0.1	0.1	0.2	0.7	1.4
TB6				0.2	3.0	0.3	0.2	0.1	0.1	0.2	0.6	1.1
Chromium												
TB3				1.0	2.4	2.6	0.8	0.2	1.5	4.3	1.8	1.4
TB6				0.8	2.4	2.8	0.6	0.2	1.5	3.3	1.7	1.2
Copper												
TB3			1.9	1.0	4.7	5.3	1.4	0.5	1.6	1.2	2.2	1.8
TB6			1.4	0.8	4.8	5.6	1.2	0.4	1.3	1.0	2.1	2.0
Lead												
TB3				0.5	2.4	2.6	0.6	0.2	0.1	0.2	0.9	1.1
TB6				0.4	2.4	2.8	0.6	0.1	0.1	0.2	0.9	1.2
Mercury												
TB3	0.75		0.24	0.41	0.09	1.10	0.10	0.04	0.21	0.11	0.34	0.36
TB6	0.78		0.12	0.41	0.14	1.10	0.14	0.04	0.13	0.07	0.33	0.37
Nickel												
TB3	2.5			2.0	14.2	2.6	0.8	0.1	0.4	0.2	2.8	4.7
TB6				1.7	1.4	2.8	0.8	0.1	0.3	0.2	1.0	1.0
Zinc												
TB3	12.0		19.9	15.0	30.0	21.0	19.8	4.8	18.8	11.1	16.9	7.2
TB6	13.0		18.7	11.6	33.0	17.0	15.3	3.8	17.5	10.5	15.6	8.0
PCBs												
TB3						0.0105		0.0098	0.25	0.004	0.0686	0.1210
TB6						0.0111		0.014	0.25	0.004	0.0698	0.1202
DDTs												
TB3			0.0021	0.066	0.0047	0.0226	0.0283	0.0058	0.05	0.0073	0.0233	0.0237
TB6			0.0019	0.016	0.0048	0.0211	0.0343	0.017	0.05	0.0076	0.0191	0.0162

Table 16. Comparison of maximum contaminant concentrations ($\mu\text{g/g}$) in muscle tissue from fish collected in the vicinity of the Goleta outfall with recommended screening values for recreational fishers.

Analyte	Maximum observed concentration level	Health Risk Level	
		Non carcinogenic	Carcinogenic
Arsenic (inorganic)	21.4 (total)	1.2	0.026
Cadmium	3.8	4.0	
Methyl mercury	1.1 (total)	0.4	
Selenium	5.3	20	
Total DDT	0.066	2.0	0.117
PCBs	0.25	0.08	0.02

Arsenic. The concentrations of arsenic in speckled sanddab (Fig. 15) around the Goleta outfall were consistently higher than the EPA screening levels of $1.2 \mu\text{g/g}$ (for non carcinogenic) and $0.026 \mu\text{g/g}$ (for carcinogenic risk). However, it is important to note that the values measured around Goleta are typical of other locations in the Southern California Bight. Mearns et al., 1991 reported that the mean arsenic concentration in the Bight was $2.1 \mu\text{g/g}$. The toxicity of arsenic in marine systems was reviewed by Neff (1997). This review (and references therein) documents that concentrations of total arsenic in clean coastal waters (which range from 1 to $3 \mu\text{g/l}$) are much higher than the EPA water quality criteria for the protection of human health ($0.14 \mu\text{g/l}$). This review suggests that EPA's human health water quality criterion is inappropriate for marine waters and that arsenic concentrations typically found in clean coastal waters represent a low risk to human consumers of fish.

Mercury. The FDA limit for total mercury is $0.5 \mu\text{g/g}$. EPA has established a health risk value of $0.4 \mu\text{g/g}$ based on methyl mercury. The maximum methyl mercury concentration measured in speckled sanddab was $1.1 \mu\text{g/g}$ (Fig. 16). This value was measured in 1995 from both TB3 and TB6. There is no pattern to suggest that the outfall is a significant source of mercury. Overall the mercury concentrations were low. The average concentration of mercury in fish was $0.34 \mu\text{g/g}$, which is below both FDA and EPA thresholds. The concentrations measured in fish near Goleta are not atypical of the Bight.

DDT and PCBs. The use of DDT and PCBs was banned in the 1980's. However, these contaminants continue to be observed in fish throughout the Southern California Bight. The maximum concentration of DDT in muscle tissue was 0.066 below EPA screening level thresholds. The maximum concentration of PCBs was $0.25 \mu\text{g/g}$ which is higher than the EPA screening thresholds of $0.08 \mu\text{g/l}$ (for non carcinogenic risk) and $0.02 \mu\text{g/g}$ (for carcinogenic risk). The average concentration was $0.0692 \mu\text{g/g}$. DDT and PCBs were rarely detected above detection limits in liver tissue of speckled sanddab. This may be due to the small sample sizes. In 1999 the average DDT concentration was $0.7459 \mu\text{g/g}$ and the average PCB concentration was $0.0540 \mu\text{g/g}$. These values were also compared to fish tissue data from the 1994 Southern California Bight Pilot Project (SCBPP) where the average DDT concentrations in liver of Pacific sanddab was $0.15 \mu\text{g/g}$. The average PCB concentration in Longfin sanddab was around $0.07 \mu\text{g/g}$ and the average for Pacific sanddab was around $0.02 \mu\text{g/g}$. The concentrations of DDT and PCBs in fish from the Goleta area are typical of the Southern California Bight.

Given the relatively small volume of discharge and small area of potential impact, EPA finds that

potential for impacts to local fish populations to be unlikely. This is supported by the low concentrations of toxics in the effluent which ensure that water quality standards are being met and the lack of impact to the benthic communities.

D. Impact of Discharge on Recreational Activities. Under section 125.62(d), the applicant's proposed modified discharge must allow for the attainment or maintenance of water quality which allows for recreational activities at and beyond the zone of initial dilution, including, without limitation, swimming, diving, boating, fishing, picnicking and sports activities along shorelines and beaches.

The COP applies the following bacterial standards for shoreline and body contact sports areas:

Total Coliform bacteria: Greater than 80% of samples in a 30-day period shall be less than 1,000 MPN per 100 ml at each sampling station. No single sample, when verified by a repeat sample within 48 hours, shall be greater than 10,000 MPN per 100 ml.

Fecal Coliform bacteria: The geometric mean shall not exceed 200 MPN per 100 ml based on at least 5 samples in any 30-day period and not more than 10% of the total samples during any 60-day period shall exceed 400 MPN per 100 ml.

In shellfish harvest areas, total coliform shall not exceed a median value of 70 MPN per 100 ml and not more than 10% of the samples shall exceed 230 MPN per 100 ml.

The permit requires the GSD to disinfect the effluent such that no more than 10% of the final effluent samples in any monthly period shall exceed a total coliform density of 2,400 MPN/100 ml, and no sample shall exceed 16,000 MPN/100 ml. Assuming a dilution factor of 122:1, an effluent concentration of 2,400 MPN would result in an expected plume concentration of around 20 MPN/100 ml. An effluent concentration of 16,000/100 ml would result in a plume concentration of 132 MPN/100 ml. The permit limits are designed to ensure that the outfall does not affect either recreational use or shellfish harvest uses in the area.

The effluent is monitored for total coliform, fecal coliform and enterococcus five days per week. The results of this monitoring effort are summarized below (Table 17 - 19). The average effluent concentration for total coliform over the five-year period was 60 MPN/100 ml. The maximum reported concentration of >1600, was observed only 7 times out of a total of 1,388 measurements. The average fecal coliform concentration was 7 MPN/100 ml. The average enterococcus concentration was 6 MPN/1000 ml. EPA's review of the applicant's data indicates that these limits have been consistently met throughout the permit period.

EPA reviewed the results of the offshore water quality monitoring program where total coliform, fecal coliform and enterococcus were measured at eight offshore stations (WC-ZID, WC-100M, B1, B2, B3, B4, B5 and B6) and five nearshore stations near the kelp beds (K1, K2, K3, K4, K5). Water samples were collected at these stations at three depths (surface, midwater, and bottom) on a quarterly basis. We reviewed 13 quarters of data collected between October 1996 to October 1999. Bacterial concentrations greater than the detection limits of 2 MPN were rarely encountered in samples from the offshore or kelp bed stations. Total coliform were detected at concentrations greater than 2 MPN in a little over 5% of the measurements (34 out of 676 samples). The maximum concentration for total coliform was 50 MPN. Fecal coliforms were detected at concentrations above 2 MPN in a little less than 2% of the measurements (12 out of 676 samples). The maximum concentration for fecal coliform was 50 MPN.

Enterococcus was measured at concentrations greater than 2 MPN in slightly more than 1% of the measurements (9 out of 676 samples). The maximum concentration for enterococcus was 17 MPN.

The applicant also monitors the shoreline along the beach for both total coliforms, fecal coliforms and enterococcus at seven stations as part of their NPDES permit (See Figure 1). The monitoring at Goleta Slough is not part of the NPDES permit but is done by the applicant to evaluate the influence of runoff from the slough on shoreline bacterial concentrations.

The results of the shoreline fecal coliform data for the shoreline stations are summarized in Figure 19. Samples at Goleta slough frequently exceeded threshold concentrations. The instantaneous maximum standard for total coliform of 10,000 MPN was exceeded 7% of the time, the instantaneous maximum standard for fecal coliform of 400 MPN was exceeded 23% of the time and the instantaneous maximum standard for enterococcus of 104 MPN was exceeded 34% of the time. Much lower exceedance rates are seen at the shoreline stations at Station E upcoast of Goleta Slough. Further analysis indicates that almost all of the exceedances of threshold at station E are associated with threshold exceedances at Goleta Slough (Figs. 20-22). This suggests that non-point sources from Goleta Slough contribute to shoreline bacterial contamination. Still lower rates are seen at Station D. With the exception of station E, total coliform did not exceed the instantaneous maximum standard in the three years studied. Fecal coliform exceedances were also relatively rare (0 to 1% of the samples). Enterococcus values exceeding the threshold were observed more frequently (between 1 and 5% of the time). This is consistent with the idea that enterococcus tend to survive longer in marine waters than either total coliforms or fecal coliforms. We calculated the 30-day geometric mean for enterococcus. At Goleta Slough the geometric mean was greater than 35 MPN roughly 51% of the time (95 out of 185 times). At station E the exceedance rate was less than 4% (7 out of 185 times) and at Station D it was roughly 2% (4 out of 185 times). With the exception of one event at Station A2, the mean enterococcus concentrations were below the 35 MPN value.

EPA concludes that bacterial concentrations associated with the discharge of waste from the Goleta outfall is not likely to affect recreational uses in the Goleta area. This is based on our review of effluent data relative to the COP and Basin Plan standards as well as water quality data from the offshore, nearshore and shoreline areas.

Table 17. Average of total coliform (MPN/100ml) in GSD effluent.

Month	1996	1997	1998	1999	2000	2001
January		39	39	150	37	61
February		53	100	110	75	73
March		49	96	73	118	173
April		23	134	103	82	130
May		35	50	94	176	102
June		29	46	149	26	56
July		27	37	41	40	24
August		27	34	19	23	89
September		60	34	28	7	68
October		58	18	45	85	46
November	22	16	40	26	17	
December	43	27	47	45	21	

Table 18. Average of fecal coliform (MPN/100ml) in GSD effluent.

Month	1996	1997	1998	1999	2000	2001
January		3	4	72	3	2
February		3	5	4	4	2
March		4	3	4	6	3
April		2	6	9	6	3
May		2	4	6	9	3
June		5	3	16	3	5
July		3	4	4	2	6
August		2	14	4	4	10
September		26	4	3	3	16
October		17	3	3	69	8
November	3	4	2	3	3	
December	4	3	4	3	2	

Table 19. Average of enterococcus (MPN/100ml) in GSD effluent.

Month	1996	1997	1998	1999	2000	2001
January		2	3	47	2	3
February		3	4	5	3	3
March		3	3	9	3	3
April		3	13	11	3	2
May		3	4	5	2	2
June		3	6	68	4	2
July		3	2	2	2	3
August		2	2	2	4	3
September		14	5	2	6	2
October		3	3	2	25	3
November	2	3	3	5	3	
December	5	4	6	2	2	

E. Conclusions on Balanced Indigenous Population. EPA concludes that a balanced indigenous population is being maintained in the vicinity of the outfall and recreational activities are protected. This conclusion is based on the following considerations:

1. The discharge meets all COP standards and EPA water quality criteria. EPA models indicate that the outfall design and location result in a high degree of initial dilution. The applicant's discharge meets effluent limitations specified in the existing permit.

2. The increase in solids deposition near the outfall is relatively small and there is no indication of organic accumulation in the vicinity of the outfall. Thus, benthic communities in the vicinity of the outfall are not likely degraded by the discharge.

3. Benthic communities in the vicinity of the outfall are not being degraded by sediment contamination. Organic pollutants in sediments are below detection levels and metals are at background levels.

4. Benthic monitoring data does not indicate any significant changes in species composition, number of species, abundance, diversity, evenness, or dominance which would suggest an outfall-related impact. Fish populations are not likely to be impacted by the quality and quantity of effluent being discharged.

5. Effluent coliform data indicates that the outfall is not a major source of bacteria. Bacterial monitoring in the offshore and along the beaches indicate that water quality standards are being met.

Since the application is based on a current discharge, continued discharge at current levels of performance will allow continued maintenance of the balanced indigenous population through the next permit cycle. NPDES permit limits will be established to ensure future compliance with state standards and to protect marine resources.

3. Establishment of a Monitoring Program [Section 301(h)(3), 40 CFR 125.63].

Under 40 CFR 125.63, which implements section 301(h), the applicant must have a monitoring program designed to evaluate the impact of the modified discharge on the marine biota, demonstrate compliance with applicable water quality standards, measure toxic substances in the discharge, and have the capability to implement the program upon issuance of a 301(h) modified NPDES permit. The frequency and extent of the monitoring program are to be determined by taking into consideration the applicant's rate of discharge, quantities of toxic pollutants discharged, and potentially significant impacts on receiving water, marine biota, and designated water uses. The existing ambient monitoring program is being kept intact. The locations of the ambient monitoring stations are listed in Table 20. On the influent and effluent monitoring program the frequency of sampling for oil and grease is being reduced from "weekly" to "every other week" for the influent and from "twice a week" to "weekly" for the effluent. The rationale for this change is based on fourteen years of monitoring which indicates that oil and grease concentrations are well below the effluent limitations in the permit. The applicant also notes that the such a reduction in frequency of sampling would still allow trends in plant removal to be evaluated and reduce the amount of solvent (freon) needed for the oil and grease analysis. EPA concurs with this recommendation.

A detailed description of the monitoring plan can be found in the draft permit. In accordance with 40 CFR 125.63(a)(2), the applicant's monitoring program is subject to revision as may be required by EPA.

Table 20. Receiving water monitoring station locations.

Offshore Water Quality Stations	
Station B1	1500 meters west of outfall at diffuser depth
Station B2	500 meters west of outfall at diffuser depth
Station B3	250 meters west of outfall at diffuser depth
Station B4	25 meters west of outfall at diffuser depth
Station B5	25 meters east of outfall at diffuser depth
Station B6	3000 meters east of outfall at diffuser depth
Station WC-ZID 25	25 meters from the outfall in the wastewater plume
Station WC-100 M	100 meters from the outfall same heading as WC-ZID 25
Station K1	1200 meters west of outfall at edge of kelp bed
Station K2	200 meters west of outfall at edge of kelp bed
Station K3	above outfall at edge of kelp bed
Station K4	200 meters east of outfall at edge of kelp bed
Station K5	1200 meters east of outfall at edge of kelp bed
Shoreline Bacteria Stations	
A2	1000 meters northeast of Goleta Point
A1	500 meters northeast of Goleta Point
A	Goleta Point
B	300 meters west of outfall line
C	outfall line
D	300 meters east of outfall line
E	1000 meters east of outfall line
GS*	Goleta Slough

4. Effect of Modified Discharge on Other Point and Nonpoint Sources [Section 301(h)(4), 40 CFR 125.64].

Under 40 CFR 125.64, which implements section 301(h)(4), the applicant's proposed modified discharge must not result in the imposition of additional treatment requirements on any other point or nonpoint source. The Central Coast Regional Water Quality Control Board has the authority to make this determination. The applicant sent a letter to the Regional Board (letter dated November 21, 2000) requesting State concurrence under 40 CFR 124.64(b). The Regional Board has made a preliminary determination that the discharge will not require the imposition of additional treatment or control

requirements to be applied to other dischargers (letter dated November 30, 2000).

5. Toxics Control Program [Section 301(h)5, 40 CFR 125.66(a)-(c)].

The toxics control program is designed to identify and ensure control of toxic pollutants and pesticides discharged to the POTW. The Section 301(h) toxics control regulations require both industrial and nonindustrial source control programs.

A. Chemical Analysis. Under 40 CFR 125.66(a), applicants are required to submit chemical analyses of its effluent discharge for specific toxic pollutants and pesticides. The applicant monitors the effluent for toxic pollutants listed in Table B of the COP on a regular basis. Metals are monitored on a monthly basis, the remaining Table B constituents are monitored on an annual basis. Information on toxic pollutants and pesticide concentrations in the final effluent for the years 1996 to 2000 is provided in the current application (See Application, Table IIA-3).

B. Toxic Pollutant Source Identification. Under 40 CFR 125.66(b), the applicant must submit an analysis of the sources of toxic pollutants identified in section 125.66(a) and to the extent practicable categorize the sources according to industrial and nonindustrial types. The applicant has identified and categorized the industrial type facilities in the GSD service area as part of their existing industrial pretreatment program.

C. Industrial Pretreatment Requirements. Under 40 CFR 125.66(c), applicants with known or suspected industrial sources of toxic pollutants must have an approved industrial pretreatment program. The control of industrial sources is also addressed by the pretreatment program regulations [40 CFR 403.8(d)]. The applicant's industrial pretreatment program was approved by EPA on July 19, 1983.

6. Urban Area Pretreatment Program [Section 301(h)(6), Section 303(c) of the Water Quality Act of 1987].

Large applicants for a modified NPDES permit under section 301(h) of the Act that receive one or more toxic pollutants from an industrial source are required to comply with the urban area pretreatment requirements. A POTW subject to these requirements must demonstrate, for each toxic pollutant known or suspected to be introduced by an industrial source, that it either has an applicable pretreatment requirement in effect, or that it has a program that achieves secondary removal equivalency. In addition, an applicant must demonstrate that industrial sources are in compliance with applicable pretreatment requirements. GSD is subject to these requirements as a large discharger.

Under 40 CFR 125.65(b)(2), the applicant must demonstrate that industrial sources introducing waste into the applicant's treatment works are in compliance with all applicable pretreatment requirements, including numerical standards set by local limits, and that it will enforce those requirements.

As explained in the preamble to the revised 301(h) regulations (FR 40656, August 9, 1994), "EPA intends to determine a POTW's continuing eligibility for a 301(h) waiver under section 301(h)(6) by measuring industrial user compliance and POTW enforcement activities against existing criteria in the Agency's National Pretreatment Program. ... In 1989, EPA established criteria for determining POTW compliance with pretreatment implementation obligations. One element of these criteria is the level of significant noncompliance of the POTW's industrial users. The General Pretreatment Regulations (part 403) identify the circumstances when industrial user noncompliance is significant. The industrial user

7. Nonindustrial Source Control Program [Section 301(h)(7), 40 CFR 125.66(d)].

Under 40 CFR 125.66(d), which implements section 301(h)(7), the applicant must have a proposed public education program designed to minimize the entrance of nonindustrial toxic pollutants and pesticides into their water pollution control facility (40 CFR 125.66(d)(1)). In certain cases, applicants may be required to implement additional nonindustrial source control programs (40 CFR 125.66(d)(2)).

GSD began implementing their non-industrial toxics control program in 1986. This program involves regular sampling and chemical analyses of wastewater from manholes located in residential areas within the service area. GSD's public education effort includes the publication of two newsletters which provide information on issues related to pollution prevention and waste minimization. The existing non-industrial toxics control program will be included as a provision of the existing NPDES permit to meet the requirements for a nonindustrial source control program under 40 CFR 125.66(d)(1).

8. Increase in Effluent Volume or Amount of Pollutants Discharged [Section 301(h)(8), 40 CFR 125.67]

Under 40 CFR 125.67, which implements section 301(h)(8), the applicant's proposed modified pollutant discharge may not increase above the amount specified in the 301(h) modified NPDES permit. The NPDES permit establishes the following limits based on an average dry weather flow of 7.7 MGD.

Table 21. Concentration and mass-based effluent limits.

Constituent	Monthly (30-day) average	Instantaneous Maximum
Suspended Solids	63 mg/l 2,151 Kg/d	100 mg/l 3,414 Kg/d
Biochemical Oxygen Demand	98 mg/l 3,345 Kg/d	150 mg/l 5,120 Kg/d

9. Compliance with Primary Treatment and Federal Water Quality Criteria [Section 301(h)(9), Section 303(d)(1) and (2) of the Water Quality Act of 1987].**A. Primary Treatment Standards.**

Under Section 303(d)(1) of the Water Quality Act of 1987 (WQA), the applicant's wastewater effluent must be receiving at least primary treatment at the time their Section 301(h) permit becomes effective. Section 303(d)(2) of the WQA states that, "Primary or equivalent treatment means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and other suspended solids in the treatment works influent, and disinfection, where appropriate." In addition, the COP requires 75% removal of suspended solids based on a 30-day average. To meet the 30-day average permit limit for BOD (98 mg/l) the plant must remove greater than 30% of BOD.

Over the time period between October 1996 and October 2001, the average monthly percent removal for suspended solids was 86%. The minimum monthly percent removal over this time period was 81%. For BOD removal over this same time period, the average monthly percent removal was 72%, the minimum monthly removal was 62%. The applicant has demonstrated the ability to meet the 30% removal requirement of TSS and BOD and the COP requirement for 75% removal of TSS. Effluent limitations

being established as part of the 301(h) modified NPDES permit will ensure that this requirement is met throughout the permit term.

B. U.S. EPA Water Quality Criteria.

Under section 303(d)(1) of the WQA, a discharger must be in compliance with the criteria established under section 304(a)(1) of the Clean Water Act at the time their 301(h) permit becomes effective. These criteria include saltwater Water Quality Criteria, and 301(h) pesticides Water Quality Criteria.

Based on a review of the applicant's discharge data, EPA concludes that all federal criteria will be met after initial dilution (See Section 2A). NPDES permit limits have been established along with effluent monitoring requirements to ensure continued compliance with EPA criteria.

COMPLIANCE WITH OTHER APPLICABLE LAWS.

40 CFR 125.59(b)(3) provides that a 301(h) modified NPDES permit may not be issued if such issuance would conflict with applicable provisions of State, local, or other Federal laws or Executive Orders.

1. State Coastal Zone Management Program [40 CFR 125.59(b)(3)].

40 CFR 125.59(b)(3) provides that issuance of a 301(h) modified NPDES permit must comply with the Coastal Zone Management Act, 16 U.S.C. 1451 *et seq.* In accordance with 16 U.S.C. 1456(c)(3)(A), a 301(h) modified NPDES permit may not be issued unless the proposed discharge is certified by the State to comply with the applicable State coastal zone management program(s) approved under the Coastal Zone Management Act, or the State waives such certification.

The applicant notified the California Coastal Commission of its intent to renew the waiver in a letter dated November 21, 2000 and requested a determination of concurrence. EPA believes that this renewal of the 301(h) waiver for Goleta Sanitation District is consistent with the California Coastal Zone Management Act. This is based on the previous positive consistency determination made by the Commission in January 1997 during the last waiver decision and the fact that there the applicant has not proposed any changes in plant operation. The Commission is scheduled to address the Goleta waiver issue at the April 9, 2002 meeting in Santa Barbara. No permit may be issued if the Commission determines that a variance from the secondary treatment requirements is inconsistent with the policies of the California Coastal Management Program.

2. Marine Sanctuaries [40 CFR 125.59(b)(3)].

40 CFR 125.59(b)(3) provides that issuance of a 301(h) modified NPDES permit must comply with Title III of the Marine Protection, Research, and Sanctuaries Act, 16 U.S.C. 1431 *et seq.* In accordance with 16 U.S.C. 1432(f)(2), a 301(h) modified permit may not be issued for a discharge located in a marine sanctuary designated pursuant to Title III if the regulations applicable to the sanctuary prohibit issuance of such a permit.

There are no federal marine sanctuaries in the vicinity of the Goleta outfall. The closest federal marine sanctuary would be the Channel Islands Marine Sanctuary which is well outside the influence of the outfall.

3. Endangered or Threatened Species [40 CFR 125.59(b)(3)].

40 CFR 125.59(b)(3) provides that issuance of a 301(h) modified NPDES permit must comply with the Endangered Species Act, 16 U.S.C. 1531 *et seq.* In accordance with 16 U.S.C. 1536(a)(2), a 301(h) modified NPDES permit may not be issued if the proposed discharge will adversely impact threatened or endangered species or critical habitats listed pursuant to the Endangered Species Act.

In 1983, EPA designated GSD as their non-Federal representative to the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to conduct informal consultation on the potential impact of the discharge on endangered species under section 7 of the Endangered Species Act.

In the last renewal, the gray whale (*Eschrichtius robustus*), the California brown pelican (*Pelecanus occidentalis*), and the western snowy plover (*Charadrius alexandrinus*) were identified as species protected under the Act. Compliance was affirmed by NMFS in a letter dated August 27, 1993 and by USFWS in a letter dated September 20, 1994.

Since that time the gray whale populations recovered sufficiently to be removed from the list on June 16, 1994. There have been no significant changes in plant operations or effluent quality that would change the level of impacts to endangered species. The applicant sent letters to NMFS and USFWS on November 21, 2000 indicating that the proposed discharge complies with the Endangered Species Act and requesting concurrence from these agencies.

STATE CONCURRENCE IN VARIANCE.

Section 301(h) and 40 CFR 125.59(i)(2) provide that a 301(h) variance may not be granted until the appropriate State certification/concurrence is granted or waived pursuant to 40 CFR 124.54. In accordance with the procedures of 40 CFR 124.53(a), before EPA may issue the applicant a 301(h) modified NPDES permit, the State must either grant certification pursuant to section 401 of the Act or waive certification. Such action by the State will serve as State concurrence in the variance.

EPA Region IX and the California State Water Resources Control Board have developed a Memorandum of Understanding (MOU, May 1984) outlining the procedures that each agency will follow to coordinate the implementation of section 301(h) and State waste discharge requirements. The MOU specifies that the joint issuance of an NPDES permit which incorporates both the 301(h) decision and State waste discharge requirements will serve as the State's concurrence.

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FIGURE 1. OFFSHORE AND NEARSHORE SAMPLING STATIONS

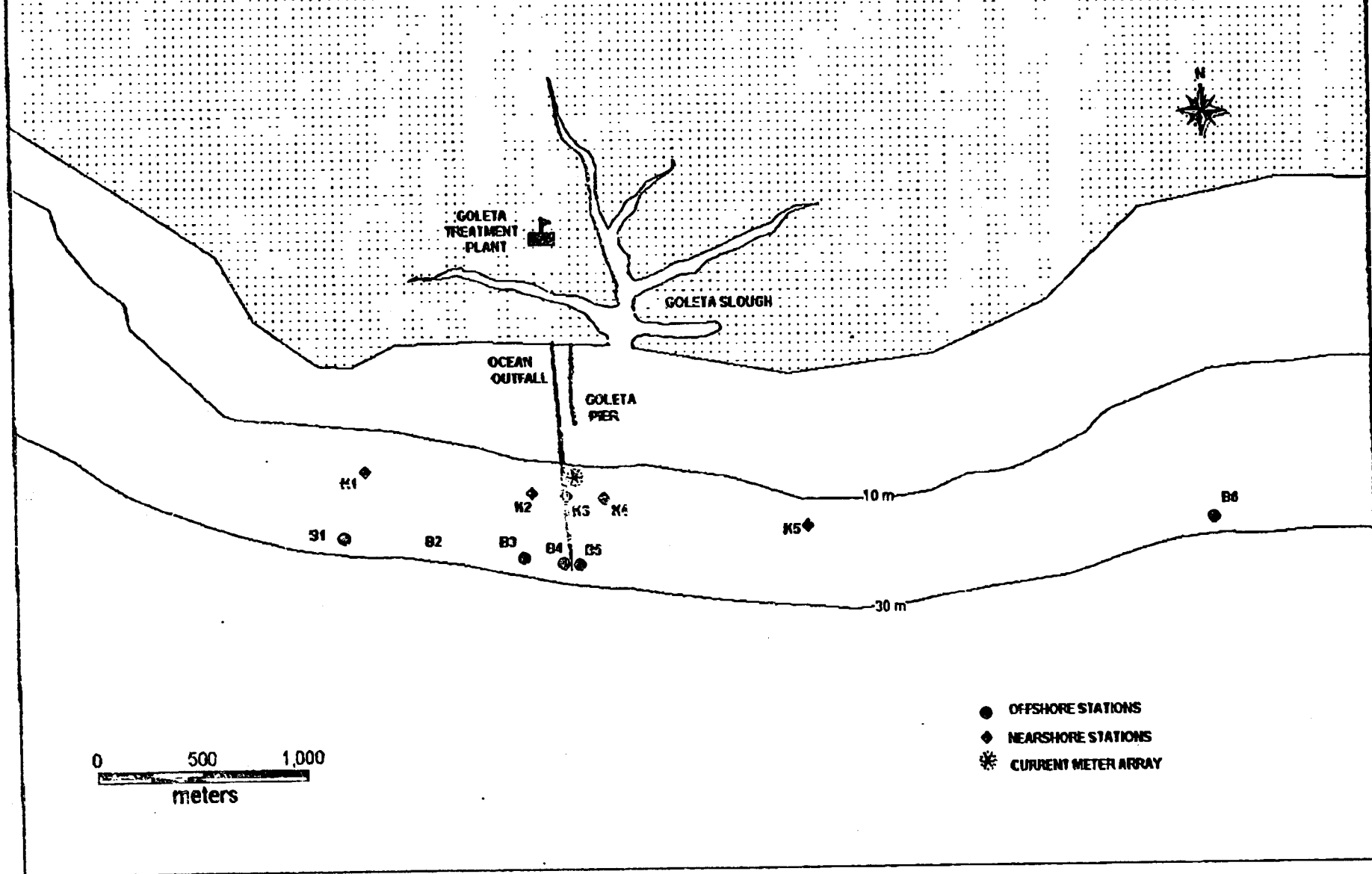


Figure 2. Percent DO Reduction as a function of ambient DO concentration for four different estimates of minimum initial dilution

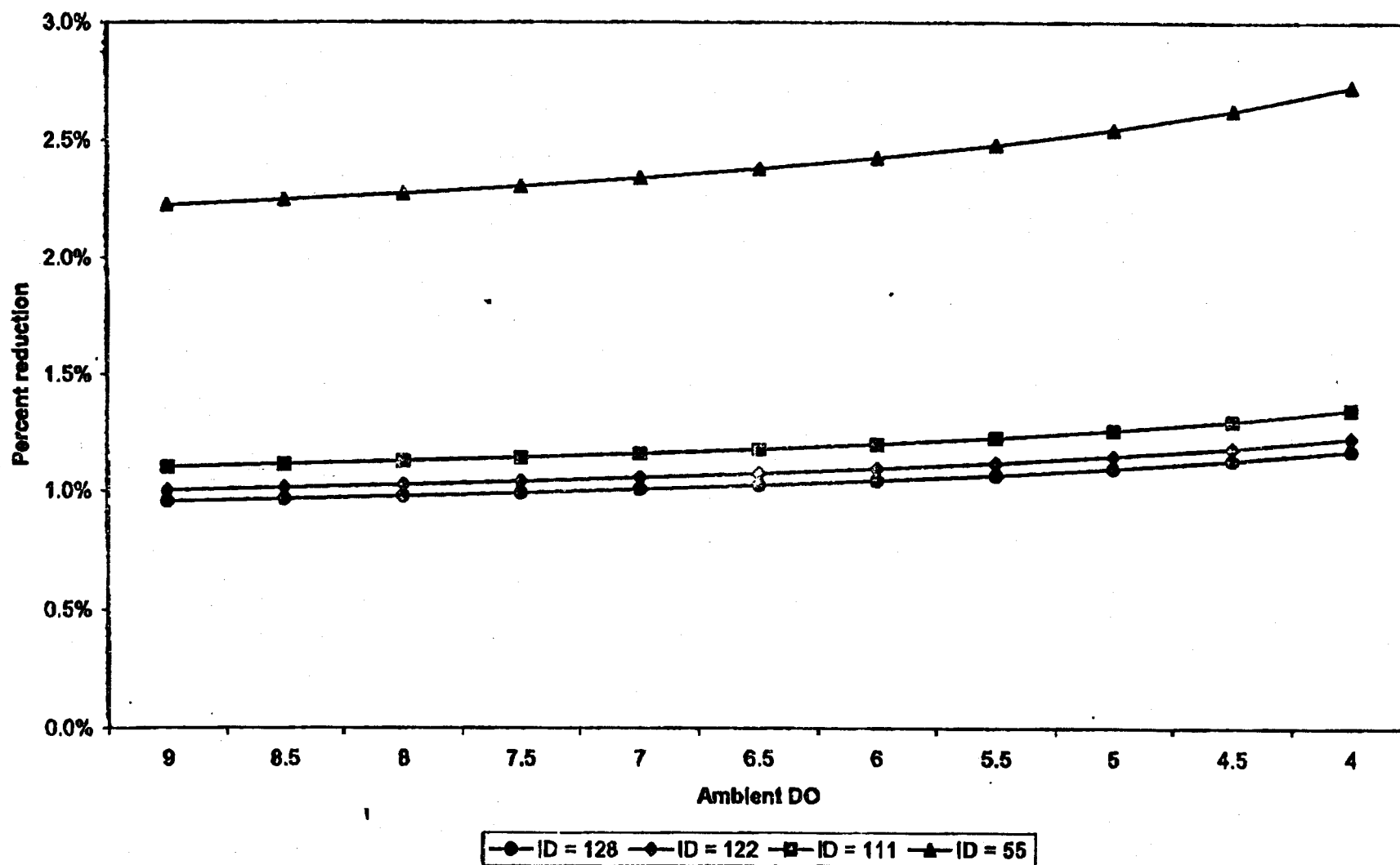


Figure 3. Sediment arsenic concentration at offshore stations (1990-1999)

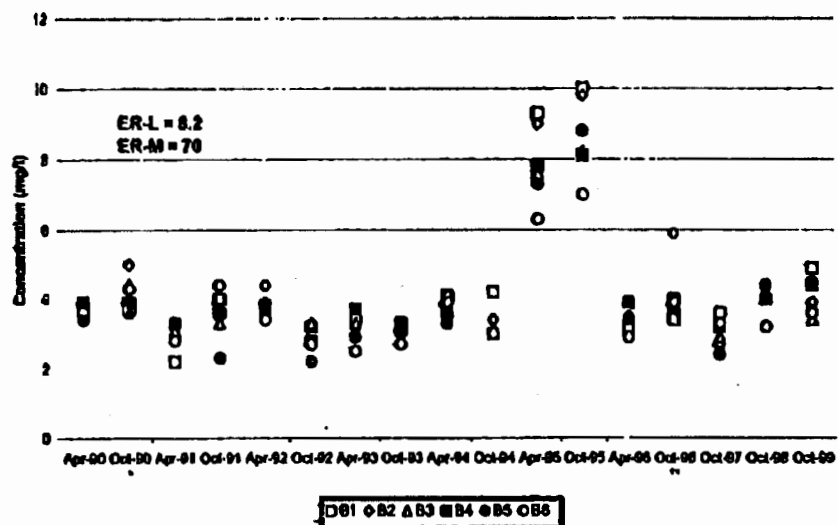


Figure 4. Sediment mercury concentrations at offshore stations (1990-1999)

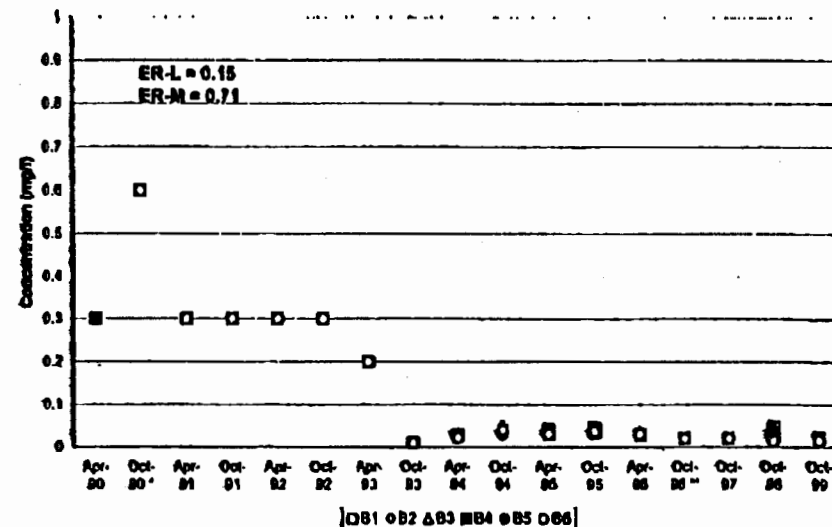


Figure 5. Sediment nickel concentrations at offshore stations (1990-1999)

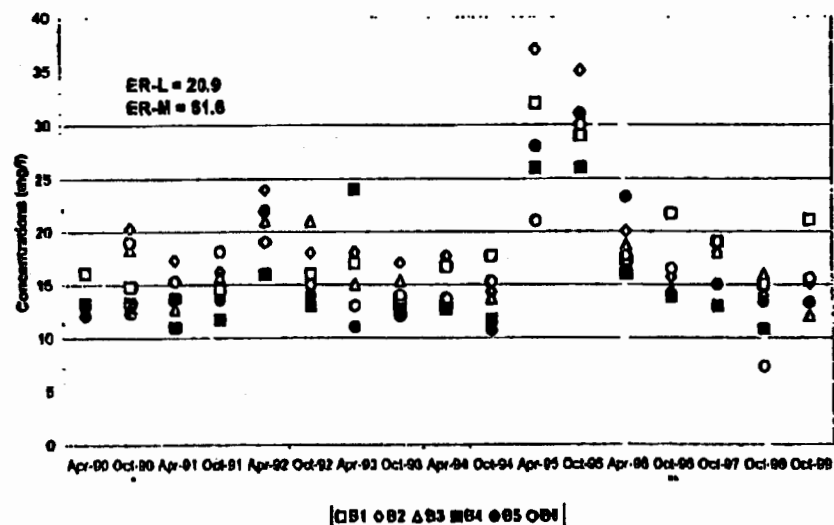


Figure 6. Sediment cadmium concentrations at offshore stations (1990-1999)

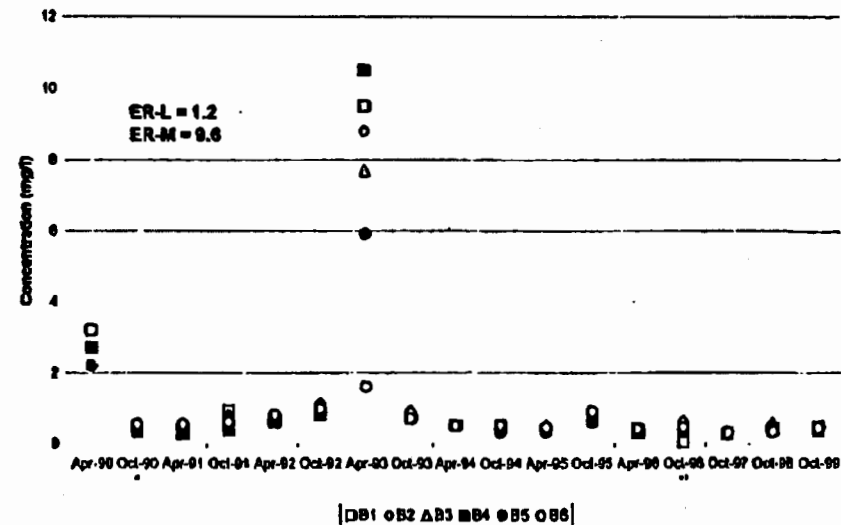


Figure 7. Number of benthic species at offshore stations (1990-1999)

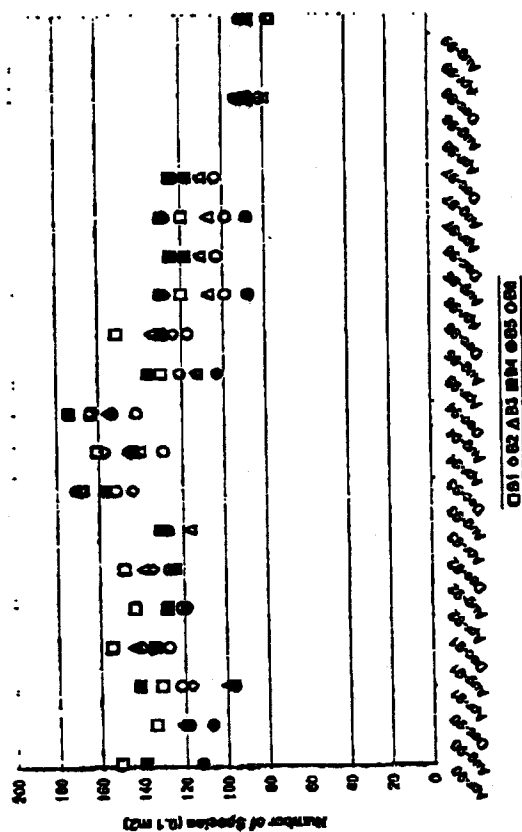


Figure 8. Abundances of benthic organisms at offshore stations (1990-1999)

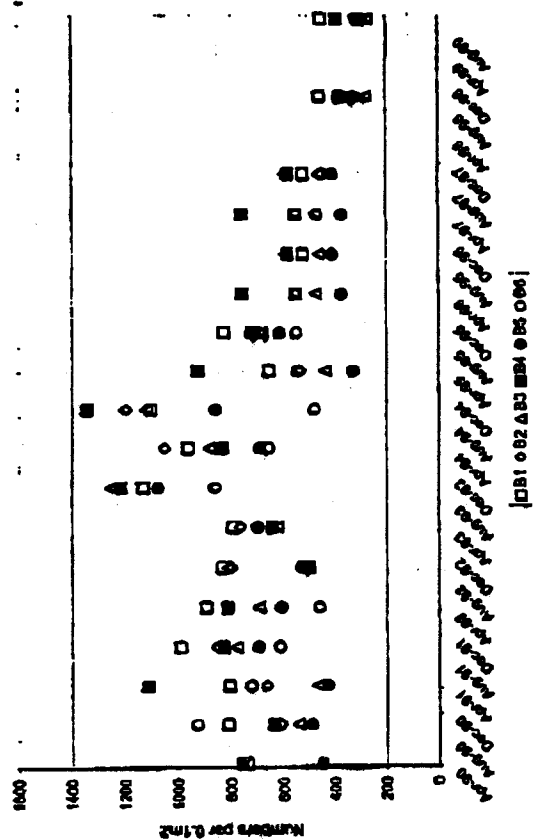


Figure 9. Diversity of benthic assemblages (H') at offshore stations (1990-1999)

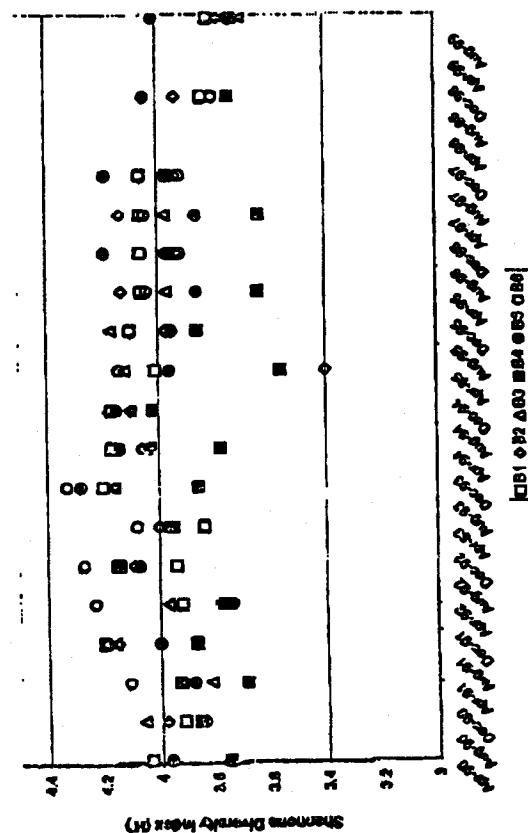


Figure 10. Infaunal Trophic Index values at offshore stations (1990-1999)

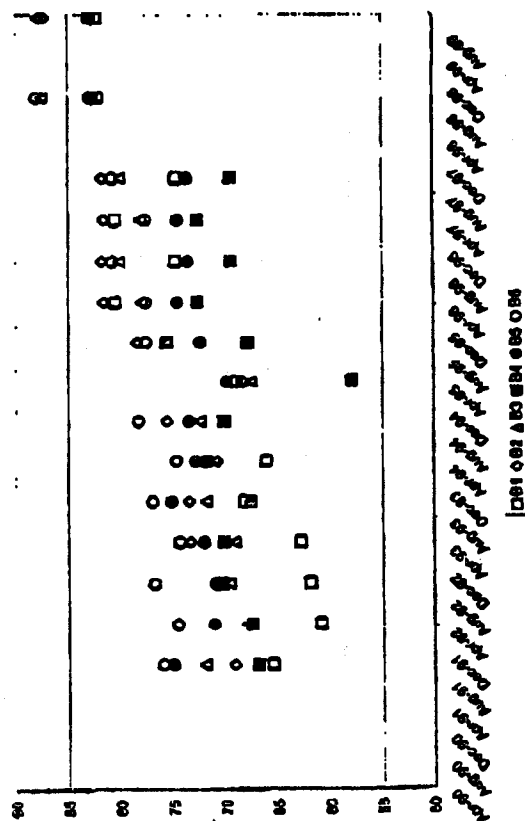


Figure 11. Number of fish species at offshore trawl stations (1990-1999)

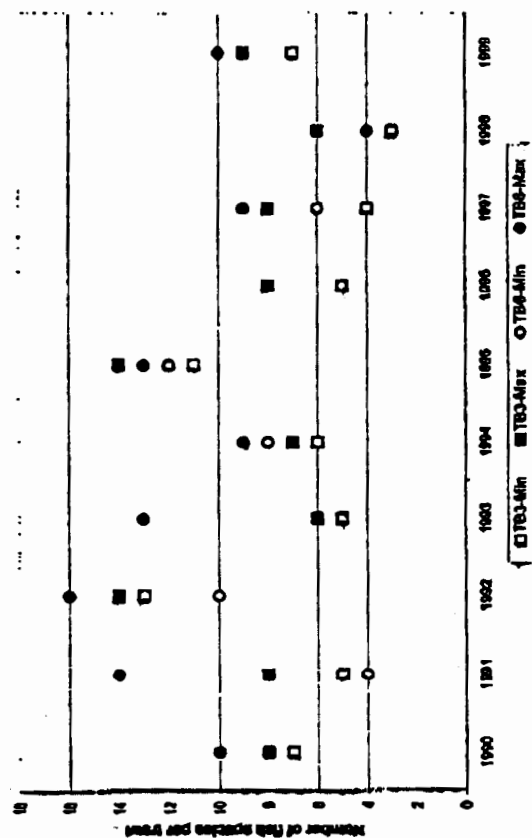


Figure 12. Fish abundances at offshore trawl stations (1990-1999)

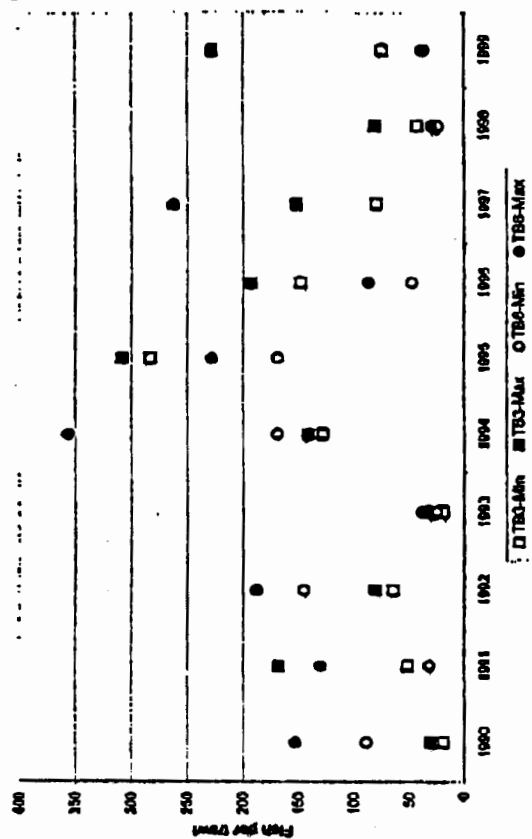


Figure 13. Fish Biomass at offshore trawl stations (1990-1999)

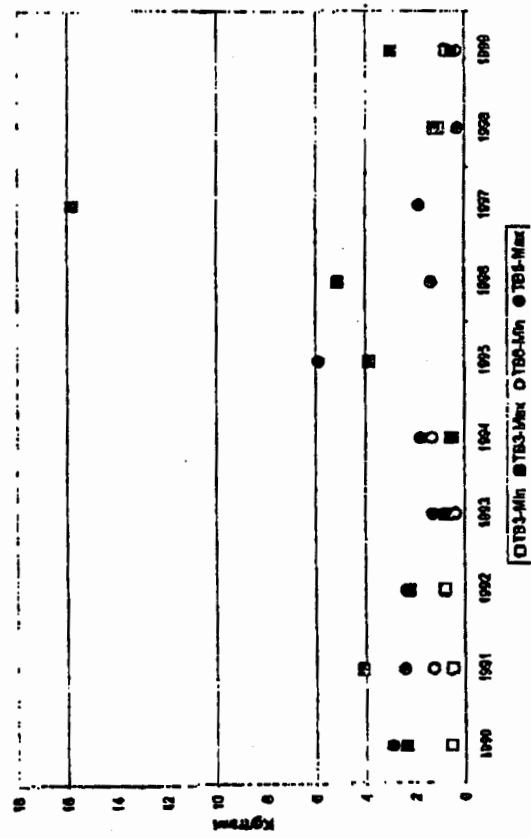


Figure 14. Fish diversity (Shannon's H') at offshore trawl stations (1990-1999)

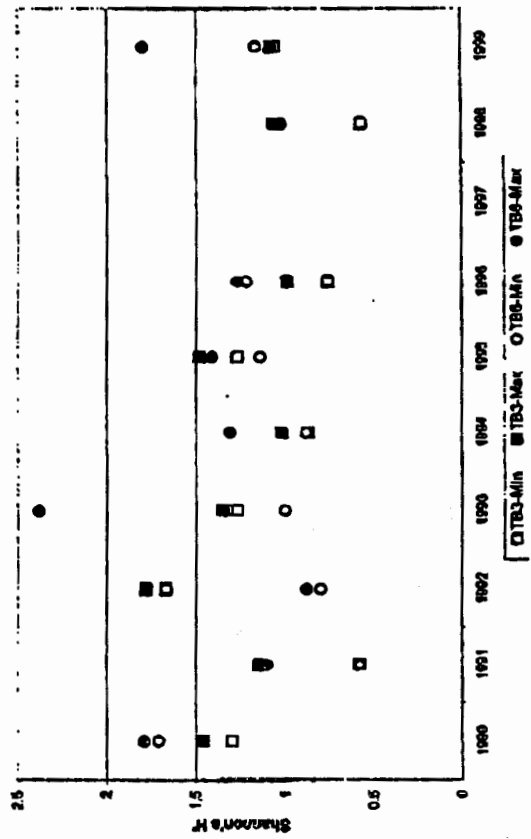


Figure 16. Mercury concentrations in the muscle tissue of Speckled sanddab collected at the offshore trawl stations (1990-1999)

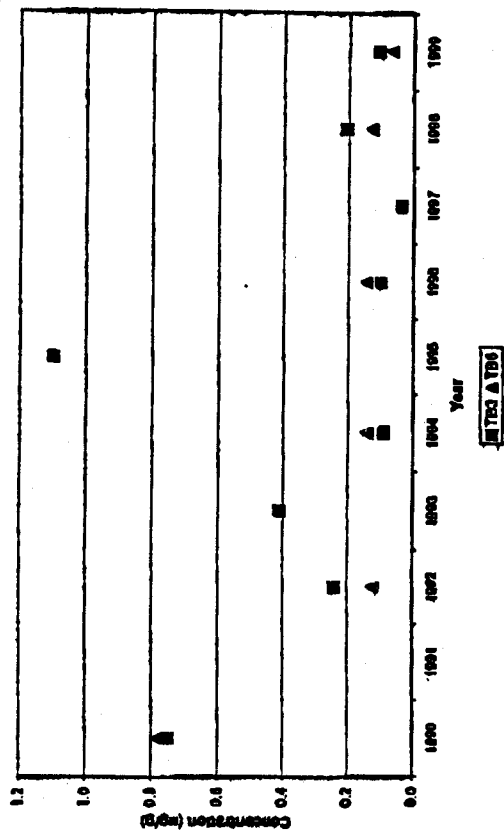


Figure 18. DDT concentrations in the muscle tissue of Speckled sanddab collected at the offshore trawl stations (1990-1999)

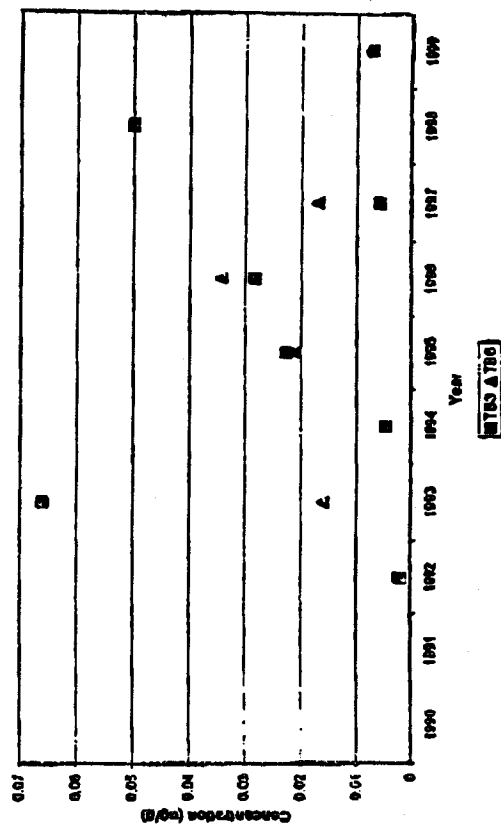


Figure 16. Arsenic concentrations in the muscle tissue of Speckled sanddab collected at the offshore trawl stations (1990-1999)

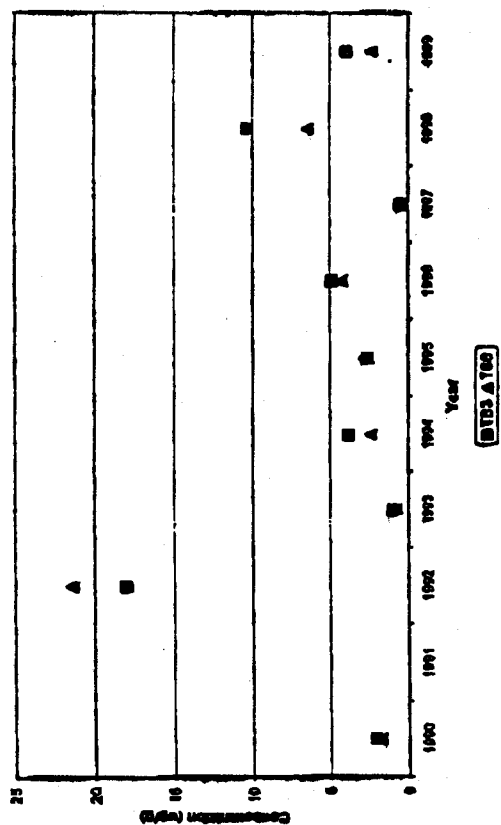


Figure 17. PCBs concentration in the muscle tissue of Speckled sanddab collected at the offshore trawl stations (1990-1999)

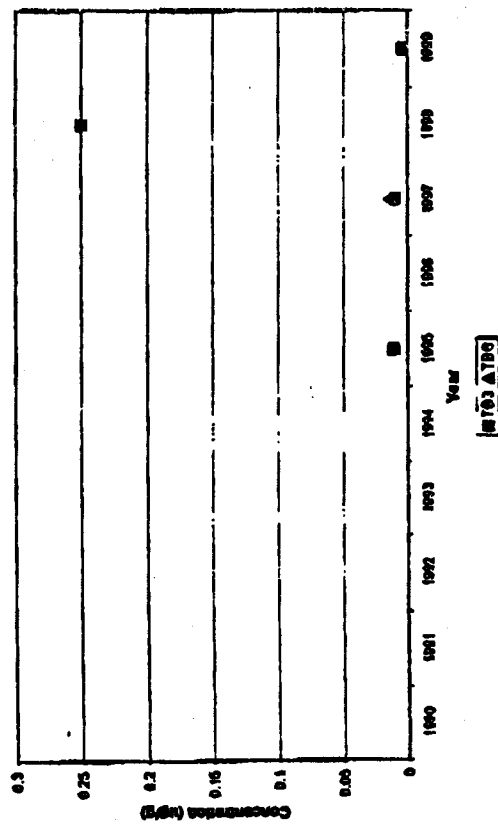


Figure 10. Summary of weekly shoreline sampling data off Goleta (1987-2000)

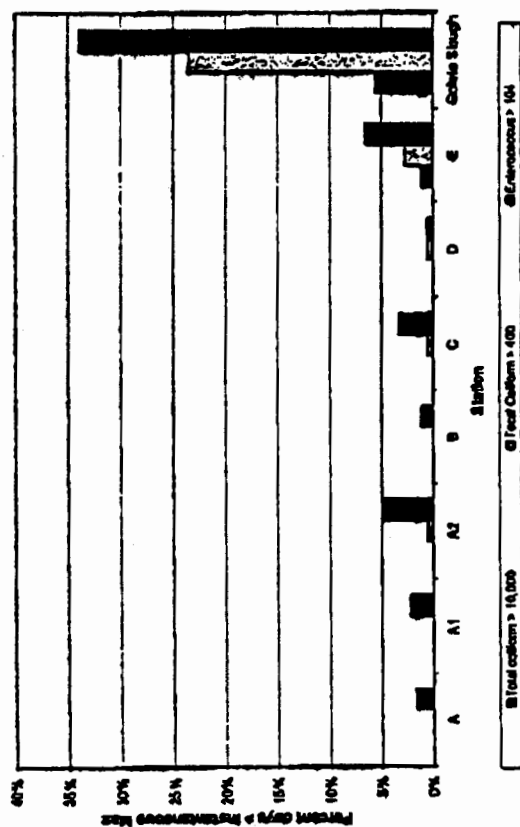


Figure 20. Relationship between Total coliform concentrations at Goleta Slough and Station E

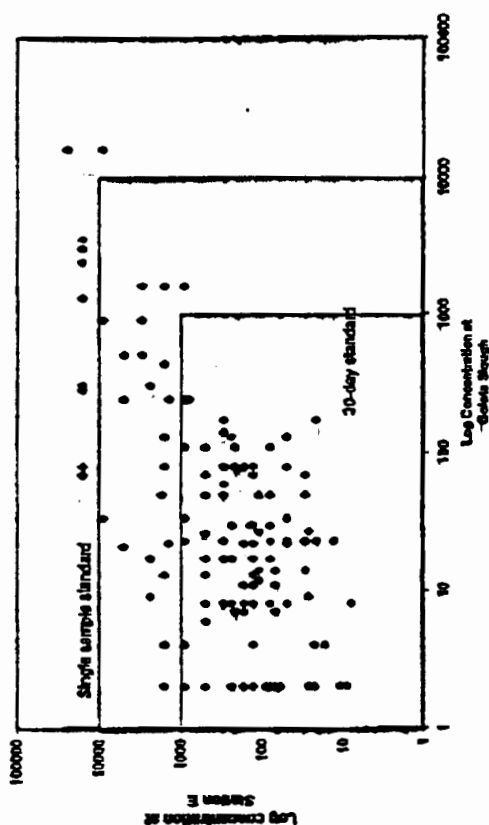


Figure 21. Relationship between fecal coliform concentrations at Goleta Slough and Station E

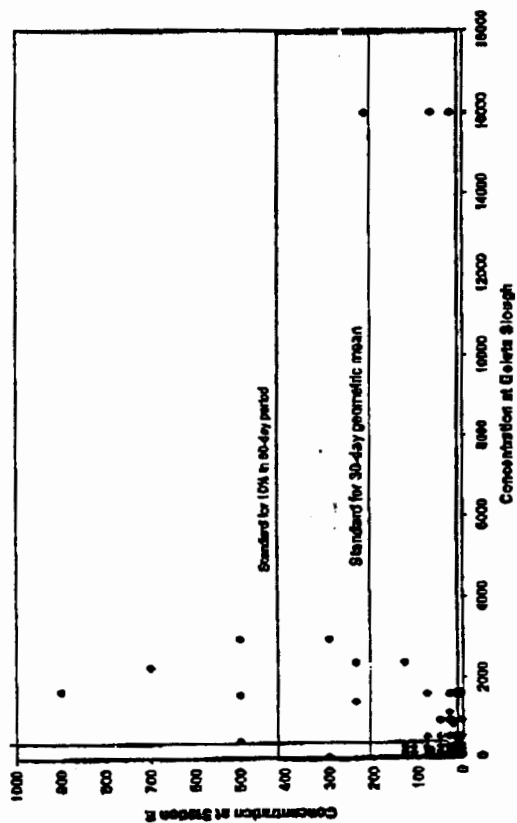
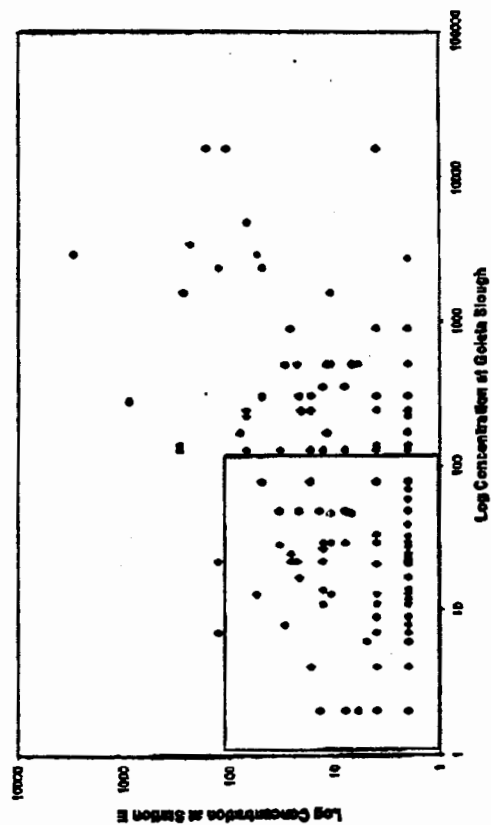


Figure 22. Relationship between enterococcus concentrations at Goleta Slough and Station E



SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT ("Agreement") is made by and between the CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CENTRAL COAST REGION (the "Regional Board"), and the GOLETA SANITARY DISTRICT (the "District"). The Regional Board and the District are collectively referred to herein as the "Parties," and each of them is singularly referred to herein as a "Party."

Recitals

A. Pursuant to the requirements of Clean Water Act ("CWA") section 402 (33 U.S.C. §1342) and Water Code sections 13000 et seq., the Regional Board or the United States Environmental Protection Agency (the "U.S. EPA") must prepare and adopt a National Pollutant Discharge Elimination System ("NPDES") permit for the District's wastewater discharge to the Pacific Ocean every five (5) years.

B. Although NPDES permits issued to publicly owned treatment works generally specify secondary treatment of wastewater (33 U.S.C. §1311(b)(1)(B)), Congress has specifically authorized waivers of secondary treatment requirements under CWA section 301(h) (33 U.S.C. §1311(h)). To qualify for a waiver, a discharge must satisfy the conditions of CWA Section 301(h), and applicable regulations. The District has been and continues to discharge its treated wastewater under a 301(h) permit (No. CA0048160) jointly issued by the U.S. EPA and the Regional Board on July 26, 1996. On January 23, 2001, the District applied to U.S. EPA and the Regional Board for another 301(h) permit with a flow limit of 9 mgd.

C. At its April 19, 2002 meeting, the Regional Board considered the renewal of the District's 301(h) permit. At the conclusion of that meeting, the Regional Board directed its staff to develop findings to support denying CWA section 401 certification and denying concurrence with the 301(h) permit.

D. At its July 12, 2002 meeting, the Regional Board adopted Resolution No. R3-2002-0077 denying CWA section 401 certification and denying concurrence with the 301(h) permit. The Resolution required the District to submit a modified NPDES permit application to the Regional Board by December 12, 2002.

EXHIBIT NO. 4
APPLICATION NO.
CC-13-02
Settlement Agreement

E. The District petitioned the Regional Board's adoption of Resolution No. R3-2002-0077 to the State Water Resources Control Board (the "State Board") on August 7, 2002 (the "State Board Petition"). At the same time, the District requested that the State Board stay the Regional Board's December 12, 2002 deadline for submitting a modified NPDES permit application while the State Board considered the State Board Petition. The State Board denied this stay request, but the Regional Board extended its own deadline to the date 45 days after the State Board issued a decision on the State Board Petition.

F. On October 15, 2003, the State Board adopted Order No. WQO 2003-0015, which stated that the deadline for final action upon the District's State Board Petition was October 17, 2003 and that, because the State Board anticipated taking final action on the matter after October 17, 2003 (the expiration of the regulatory timeframe set forth in 23 C.C.R. §2050.5), the State Board would review Regional Board Resolution No. R3-2002-0077 on its own motion. (Subdivision (a) of the Water Code section 13320 authorizes the State Board to review actions of a regional water quality control board on its own motion at any time.)

G. On December 4, 2003, the District submitted to the Regional Board and U.S. EPA an application for a 301(h) permit providing for a flow limit of 7.64 million gallons per day and a CWA section 401 Water Quality Certification Application. The District provided additional information on December 19, 2003. On December 30, 2003 the Regional Board denied 401 certification without prejudice.

H. On January 22, 2004, the State Board adopted a motion rescinding Order No. WQO 2003-0015. In a letter dated February 4, 2004, the State Board advised the District that: "In view of the SWRCB's action rescinding Order No. WQO 2003-0015, and the fact that the deadline for acting on GSD's petition has passed, GSD's petition is deemed to be denied by operation of law as of January 22, 2004, and Regional Board Resolution No. R3-2002-0077 remains in effect." In a footnote, the State Board noted that: "By letter dated October 13, 2003, Goleta asked the SWRCB to hold Goleta's petition to review the Regional Board resolution in abeyance. The State Board took no action upon the request to hold the petition in abeyance."

I. On February 18, 2004, the District filed a Petition for Writ of Mandate in Santa Barbara County Superior Court (the "Petition"), and on April 21, 2004, filed an amended writ petition (the "Amended Petition"). In order to effectively stay these proceedings to allow settlement discussions to proceed, the District has not requested preparation of the administrative record.

J. The Parties wish to avoid unnecessary litigation over the issues raised in the Amended Petition and have agreed to settle the Amended Petition as set forth in this Agreement.

K. Subject to the provisions of this Agreement regarding Regional Board discretion and New Evidence (defined below), this Agreement contemplates that the Regional Board will concur in or issue the First and Second 5-Year Permits (defined below) 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. Pursuant to the May 1984 Memorandum of Understanding for Modified NPDES Permits Under Section 301(h) of the Clean Water Act Between the California State Water Resources Control Board and the U.S. Environmental Protection Agency, Region 9, the Regional Board issues such concurrence and Clean Water Act Section 401 certification by issuing final waste discharge requirements. U.S. EPA then issues a NPDES permit including the 301(h) waiver provisions. References in this Agreement to the Regional Board "issuing" a permit mean, as applicable, issuance by the Regional Board of waste discharge requirements that constitute Section 401 certification of and concurrence with a U.S. EPA NPDES permit that includes modifications under Section 301(h), or issuance by the Regional Board of a NPDES permit.

L. Without admitting anything, the Parties enter into this Agreement to resolve the pending Amended Petition and to avoid the expense and uncertainty of litigation.

Agreement

In consideration of the foregoing and the following, the Parties agree as follows:

A. STAY OF LAWSUIT.

In order to avoid unnecessary litigation over the issues raised in the Amended Petition and to pursue the settlement provided for in this Agreement and to allow for its implementation, the Parties desire to stay the Amended Petition, the preparation and lodging with the Superior Court of the administrative record, the requirement for the filing of pleadings, and the court's consideration of the Amended Petition (the "Stay"). To accomplish the Stay, the District hereby agrees not to request that the administrative record pertaining to the Amended Petition be prepared or lodged with the court unless and until the District recommences the pending litigation pursuant to the Amended Petition under Section C.1.d after this Agreement becomes null and void. If the Superior

Court issues an order to show cause or takes other action, which would have the effect of terminating the Stay and/or requiring said pending litigation to be recommenced, the Parties will jointly seek a court order granting a Stay of the litigation. If the Superior Court denies the Stay, then within ten (10) days of such denial, (i) the Parties shall enter into a stipulation providing that the District may refile the Amended Petition, but only if such refiling is in accordance with the terms of this Agreement set forth below, and (ii) the District shall then dismiss the Amended Petition as to all respondents without prejudice. Said stipulation shall provide that, to the extent that the Amended Petition is refiled in accordance with and subject to the terms of this Agreement, (i) the refiling of the Amended Petition is not barred by time related defenses such as statutes of limitation, laches, estoppel or waiver, (ii) neither Party is waiving any other claims or defenses in connection with the Amended Petition upon refiling, including but not limited to claims and/or defenses relating to mootness and exhaustion of administrative remedies, (iii) the Regional Board reserves all rights to move to dismiss or demur to or move for summary judgment on the Amended Petition or any other pleading on any ground not stated in clause (i), (iv) the District reserves all rights to oppose such motions or demurrers, and (v) the waiver of time-related defenses in clause (i) shall expire if the District does not refile the Amended Petition within 30 days after this Agreement becomes null and void pursuant to Section B.2.c.2(a) or (b) hereof. The intent of this paragraph is only to effectuate the terms of this Agreement regarding the timing of and requirements for the Stay of the Amended Petition. Any new or changed allegations or claims in the refiled Amended Petition that were not included in the Amended Petition on April 21, 2004 are not subject to this paragraph.

B. TERMS.

1. Conversion Schedule

The District shall undertake a program to install and operate equipment at its treatment plant capable of achieving, and achieve, secondary treatment requirements set forth in 40 C.F.R. Part 133, other than 40 C.F.R. section 133.105. The program must be designed to adequately address projected future wastewater flows as of the end of the Conversion Schedule. The District shall complete the planning, design, construction and operation of the facilities necessary to attain compliance with the secondary treatment requirements in accordance with the schedule set forth below (the "Conversion Schedule"). The ten-year upgrade period, commencing with the issuance

of the First 5-Year Permit (defined below) and ending on the last date listed in the Conversion Schedule, is the "Conversion Period."

CONVERSION SCHEDULE

<u>Tasks</u>	<u>Date of Completion*</u>
A. <u>Preliminary Activities:</u>	
1. Submittal of Detailed Conversion Plan and Timeline to Owners of Capacity in District's Plant	1/1/05
2. Coordination of Conversion Concepts w/ Owners of Capacity in District's Plant (Education regarding participation in conversion)	6/30/05
3. Send Requests for Environmental and Consulting Engineering Proposals	12/31/05
4. Award of Environmental and Consulting Engineering Contracts	6/30/06
B. <u>Facilities Planning:</u>	
1. Complete Draft Facilities Plan	12/31/06
2. Complete Final Facilities Plan	6/30/08
C. <u>Environmental Review and Permitting:</u>	
1. Complete and Circulate Draft CEQA Document	6/30/08
2. Certify Final CEQA Document	1/31/09
3. Submit Applications for all Necessary Permits	1/31/09
4. Obtain all Necessary Permits	1/31/11
D. <u>Financing:</u>	
1. Complete Draft Plan for Project Design and Construction Financing	1/30/07
2. Complete Final Plan for Project Design and Construction Financing	3/31/08

3. Submit Proof that all Necessary Construction Financing has been Secured, Including Compliance with Proposition 218 12/31/10

E. Design and Construction:

1. Initiate Design 6/30/08
2. 30% Design 12/31/08
3. 60% Design 11/30/09
4. 90% Design 3/31/10
5. 100% Design 9/30/10
6. Issue Notice to Proceed to Contractor 4/30/11
7. Construction Progress Reports Quarterly
(w/ self monitoring reports)
8. Complete Construction and Commence Debugging and Startup 4/30/14
9. Full Compliance w/ Secondary Requirements 11/1/14

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

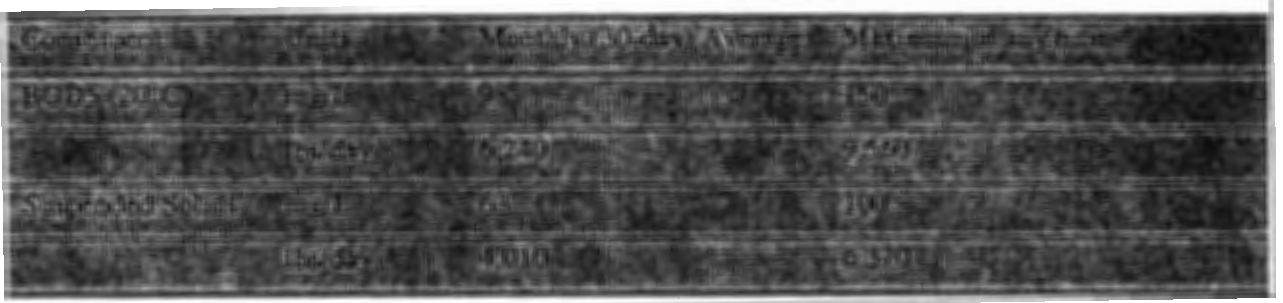
2. Secondary Treatment Limits and District's Conversion to Secondary.

a. First Five-Year Permit Cycle.

1. The Regional Board's Executive Officer shall recommend to the Regional Board that it (i) concur in the issuance of a five (5)-year 301(h) permit for the District (the "First 5-Year Permit"), and (ii) provide water quality certification of the First 5-Year Permit under Clean Water Act Section 401 (33 U.S.C. §1341) without changing the District's current requirements for biochemical oxygen demand ("BOD") or total suspended solids ("TSS"). It is not the intent of this Agreement to impose numeric or narrative requirements for other constituents (e.g., limits for bacteria) that would effectively require the District to upgrade to full-secondary treatment faster than provided under the Conversion Schedule. Therefore, unless there is new evidence that was not

in the administrative record as of the date the Regional Board's Executive Officer signed this Agreement, the Executive Officer shall recommend that the First 5-Year Permit allow the District to continue with its current treatment process consistent with the provisions of its existing 301(h) permit, Order No. 96-21 (except as provided below with respect to Enhanced Treatment),

2. The BOD and TSS limits to be recommended by the Executive Officer for approval are as follows:



3. The findings recommended for adoption by the Regional Board in connection with the First 5-Year Permit and the issuance of water quality certification shall reference the Settlement Agreement and shall incorporate the Conversion Schedule. The findings recommended for adoption by the Regional Board shall also state that:

(i) Subject to the provisions of the Settlement Agreement regarding Regional Board Discretion and New Evidence, the Settlement Agreement contemplates that the Regional Board will concur in or issue the First and Second 5-Year Permits (defined below) 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,

(ii) Based on the administrative record, including population growth projections through 2014, known environmental and cumulative impacts of the District's existing wastewater treatment facilities, and evidence submitted by the District of the time needed for upgrading the plant, the Conversion Schedule is appropriate, and

(iii) At the end of the Conversion Period, once the District has converted to secondary treatment of effluent from the Plant, the Regional 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 Board determines are necessary to comply with State or Federal law.

4. If the Regional Board adopts the Executive Officer's recommendation by concurring with the First 5-Year Permit and issuing water quality certification, the District shall commence the process for completing all modifications to its plant necessary to comply with secondary treatment standards ("upgrade to secondary treatment") by the end of the Conversion Period, in accordance with the Conversion Schedule.

b. Second Five-Year Permit Cycle.

1. For the five (5) year period following the expiration of the First 5-Year Permit, the Regional Board's Executive Officer shall recommend to the Regional Board that it (i) concur in the issuance of a second five (5)-year 301(h) permit for the District (the "Second 5-Year Permit"), and (ii) provide water quality certification of the Second 5-Year Permit under Clean Water Act Section 401 (33 U.S.C. §1341) without changing the District's current requirements for BOD or TSS as provided under Section B.2.a.2 above. As stated above, it is not the intent of this Agreement to impose numeric or narrative requirements for other constituents (e.g., limits for bacteria) that would effectively require the District to upgrade to full-secondary treatment faster than the Conversion Schedule provides. Therefore, the Regional Board's Executive Officer shall recommend that the Second 5-Year Permit (i) allow the District to continue with its current treatment process consistent with the provisions of its existing 301(h) Permit Order No. 96-21 (except as provided below with respect to Enhanced Treatment), and (ii) incorporate findings that contain the Conversion Schedule providing for converting to secondary treatment no sooner than the end of the original ten (10)-year Conversion Period. Notwithstanding the foregoing, the Executive Officer is not required to recommend concurrence in or certification of the Second 5-Year Permit as a 301(h) permit if there is evidence not in the administrative record at the time the First 5-Year Permit is issued ("New Evidence") that (a) the plant cannot satisfy one or more of the applicable requirements for issuance of a 301(h) permit; (b) population growth is likely to cause the projected average dry weather flows through the plant to exceed 7.64 mgd prior to the end of the Conversion Period; or (c) a change in the law requires more stringent limits. If the Executive

Officer does not make the recommendations described in this paragraph because there is New Evidence, the Executive Officer shall state in writing the reasons for not making the recommendation and clearly identify the New Evidence.

2. If the Regional Board determines at the time of its consideration of the District's Second 5-Year Permit that substantial evidence supports a finding that the Conversion Schedule is still appropriate, based on the record before the Regional Board, but that the required findings cannot be made for the Regional Board to (i) concur in the issuance of the Second 5-Year Permit under CWA Section 301(h), or (ii) provide water quality certification for such 301(h) permit as set forth in section B.2.b.1 above, the Regional Board may instead issue as the "Second 5-Year Permit" an NPDES permit. In such case, the final effluent limits (i.e., secondary treatment requirements) and the Conversion Schedule shall be incorporated into the permit findings, and the interim limits set forth in Section B.2.b.1 shall be incorporated into the permit provisions if the Regional Board determines that interim limits are legally authorized under the Water Code and the Clean Water Act. Otherwise, the final effluent limits shall be included in the Second 5-Year Permit and the interim limits and Conversion Schedule will be placed in an order adopted in conformance with Water Code §13385(j)(3) at the time the Second 5-Year Permit is adopted.

3. Except as otherwise provided in Sections B.2.a and b, above, this Agreement does not address any effluent limits of the First 5-Year Permit and the Second 5-Year Permit. The Parties understand and agree that pursuant to Order Nos. WQO 2003-0009 and WQO 2003-0012, the State Board has determined that the removal of effluent limitations for which new monitoring data indicate that there is no reasonable potential to cause or contribute to a water quality standards violation does not violate the general antibacksliding rules under Clean Water Act section 402(o), and that removal of effluent limits for non-impairing pollutants (as defined in WQO 2003-0009) does not violate the general antibacksliding rules under Clean Water Act section 303(d)(4) if antidegradation requirements are satisfied.

c. Regional Board Discretion.

1. Nothing in this Agreement limits the discretion that the Regional Board would have absent this Agreement. The Parties understand that the Regional Board members must

consider the evidence before them and exercise their authority consistent with applicable laws, the record before them, and the discretion vested in them by applicable laws. Any decision by the Regional Board not to issue the First 5-Year Permit or Second 5-Year Permit as provided above, or to issue a permit that includes more stringent requirements than those set forth in herein, i.e., more stringent BOD or TSS limits or a shorter Conversion Period (either explicitly or through the imposition of effluent limits or other requirements that require a shorter Conversion Period) shall not constitute a breach of this Agreement by the Regional Board. However, the issuance of or concurrence with the First 5-Year Permit and, if applicable, the Second 5-Year Permit, and any necessary related water quality certification, as set forth herein, are conditions to the District's continuing obligations under this Agreement, except for the District's obligation to Stay the Amended Petition pursuant to Section A, above.

2. (a) If, based the administrative record, the Regional Board issues the First or Second 5-Year Permit or takes other action during the Conversion Period and, in connection therewith, includes more stringent requirements than those set forth herein, i.e., more stringent BOD or TSS limits or a shorter Conversion Period (either explicitly or through the imposition of effluent limits or other requirements that require a shorter Conversion Period), the District shall timely file a petition for review by the State Board pursuant to Water Code section 13320 challenging these more stringent requirements. If the State Board does not, within two hundred seventy (270) days of the date on which the State Board determines in writing that the petition is complete, either remand the matter to the Regional Board for inclusion of the requirements set forth herein, or concur in the 301(h) waiver and issue 401 certification of, or issue, on its own the First or Second 5-Year Permit that includes the requirements provided for herein, then, unless the Parties otherwise mutually agree in writing, (i) the District's obligations under this Agreement to upgrade to secondary treatment within the ten-year Conversion Period and its obligations under the Conversion Schedule shall terminate, and (ii) this Agreement shall become null and void.

(b) If the Regional Board issues the First or Second 5-Year Permit and, in connection therewith, takes action to impose BOD and TSS limits and a Conversion Schedule as set forth herein (and if the action does not require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), the District agrees that it will not file a petition for review with the State Board pursuant to Water Code section 13320 challenging the

BOD or TSS limits or the Conversion Schedule. If a petition for review is filed by a third party pursuant to Water Code section 13320 that challenges such BOD limits, TSS limits or the Conversion Schedule (or seeks to require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), and if the State Board does not dismiss the petition, issue an order upholding the Regional Board's action, or allow the petition to be deemed denied by failing to make a formal disposition thereon within the time specified in 23 CCR §2050.5(b) (as extended by any own-motion review pursuant to 23 CCR §2050.5(c)) then, unless the Parties otherwise mutually agree in writing, (i) the District's obligations under this Agreement to upgrade to secondary treatment and its obligations under the Conversion Schedule shall terminate, and (ii) this Agreement shall become null and void.

(c) If the Regional Board does not take final action on the First 5-Year Permit by December 3, 2005, or if the Regional Board does not take final action on the Second 5-Year Permit by November 30, 2010, then, unless the Parties otherwise mutually agree in writing, (i) the District's obligations under this Agreement to upgrade to secondary treatment within the ten-year Conversion Period and its obligations under the Conversion Schedule shall terminate, and (ii) this Agreement shall become null and void.

(d) Nothing in this Agreement relieves the District of the requirement to exhaust applicable administrative remedies. Notwithstanding the termination of this Agreement and the fact that this Agreement becomes null and void, (i) the District will be required to comply with all state and federal laws, including the Clean Water Act and the California Water Code, (ii) the District shall retain the right to bring an action relating to any failure of the Regional Board's Executive Officer to make the recommendations required under Sections B.2.a.1 or B.2.b.1, above, and (iii) certain provisions regarding fees and costs shall survive, as set forth in Section F.10. The District's sole remedy for any claimed failure of the Executive Officer to make a recommendation under Sections B.2.a.1 or B.2.b.1 shall be to seek specific performance. The parties waive any right to discovery in such action and the evidence shall be limited to documents in the Regional Board's files as of the date of the Executive Officer's challenged recommendation. The District hereby waives all of its rights, if any, to seek damages from the Regional Board or Executive Officer in the event the District claims a breach of the Executive Officer's agreement to make the recommendations required under Sections B.2.a.1 or B.2.b.1. Nothing herein shall operate as a waiver of any defenses the Executive Officer or Regional Board may assert in such an action. The

parties acknowledge that the State Board may decline to review any petition filed pursuant to this Agreement.

3. It is not the intent of this Agreement to create a basis for the Regional Board to issue a subsequent permit that requires a shorter Conversion Schedule because it determines, upon consideration of the Second 5-Year Permit, that it may be possible for the District to complete the upgrade sooner. Any decision by the Regional Board, when considering the Second 5-Year Permit, to require a shorter Conversion Schedule for other reasons shall specify those reasons and support those reasons with evidence in the record. Only after it has determined, based on substantial evidence in the record, that independent factors exist for requiring a shorter Conversion Period, may the Regional Board consider the time necessary to complete the conversion as one of the factors in establishing the shorter Conversion Schedule, time schedule, or other compliance schedule.

C. PERMIT RENEWAL AND STIPULATION TO DISMISS.

1. Required Actions

a. If the Regional Board concurs in the issuance of the First 5-Year Permit and issues water quality certification consistent with the terms of Section B of this Agreement, and if no petition is filed with the State Board by a third party under California Water Code Section 13320 challenging the Regional Board's 301(h) concurrence, 401 water quality certification, TSS or BOD effluent limits or the findings specified by this Agreement (collectively referred to in this Section C.1 as "301(h) Waiver"), then the District shall dismiss with prejudice its Amended Petition in its entirety against both the Regional Board and the State Board within ten (10) days following the effective date of the First 5-Year Permit. If a petition challenging the 301(h) Waiver is filed by a third party with the State Board under California Water Code Section 13320, then the District shall dismiss with prejudice its Amended Petition in its entirety against both the Regional Board and the State Board within ten (10) days following the date on which the State Board dismisses the petition, fails to act on the petition within the time specified in 23 CCR §2050.5(b) (as extended by any own-motion review pursuant to 23 CCR §2050.5(c)), or issues an order upholding the 301(h) Waiver.

b. If the Regional Board issues the First 5-Year Permit as provided above, the District covenants not to petition to the State Board or otherwise appeal the 301(h) Waiver provisions of the First 5-Year Permit, so long as said Permit remains in effect and unchanged. However, the District reserves the right to petition to the State Board or otherwise appeal the First 5-Year Permit if any change(s) are made to the 301(h) Waiver or Conversion Schedule provisions of said Permit by the Regional Board or State Board.

c. The District reserves the right to challenge all other provisions of the First 5-Year Permit besides the Permit's BOD, TSS or Conversion Schedule requirements, including, but not limited to any new requirements for collection system maintenance, any new or more stringent requirement than the requirements contained in Order No. 96-21, and effluent limits for constituents not demonstrated to have reasonable potential to cause or contribute to a violation of water quality standards. Any such challenge shall be commenced by raising the issue(s) before the Regional Board and then filing a petition to the State Board under Water Code Section 13320. A challenge to the Regional Board's or State Board's action under this paragraph shall not relieve the District of its obligation to dismiss the Amended Petition if required under Section C.1.a.

d. If this Agreement becomes null and void pursuant to Section B.2.c.2(a) or (b) above (Regional Board Discretion) with respect to the First 5-Year Permit, the District has indicated that it might either file a new lawsuit and seek to consolidate the new lawsuit with the Amended Petition, or continue the pending litigation pursuant to the Amended Petition. If the District files a new lawsuit alleging that a shorter Conversion Schedule is required, the District shall have the burden of proving that a requirement imposed by the Regional Board or State Board expressly or effectively requires a shorter Conversion Schedule. Before filing a new lawsuit related to the First or Second 5-Year Permit, the District agrees that it shall first exhaust all applicable administrative remedies (except for a lawsuit to stay the Regional Board action should the State Board deny such a stay request pursuant to California Water Code Section 13320(e)). If the District continues the Amended Petition, the District agrees that it shall first seek to amend the Amended Petition to incorporate the subsequent actions of the Regional Board and any State Board order relating to the Regional Board's action. Notwithstanding the foregoing, both the Regional Board and the State Board contend that all claims set forth in the Amended Petition will become moot no later than the date on which the First 5-Year Permit is issued and that the District cannot cure this

by amending the Amended Petition to incorporate subsequent actions. The District does not agree with this contention. The Regional Board explicitly reserves that defense and any other claim of mootness, and the District explicitly reserves all of its defenses and claims with respect to any mootness arguments. In addition, the Regional Board and State Board contend that the District will have failed to exhaust its administrative remedies if it attempts to amend the Amended Petition to add any new claims or facts prior to raising the issue(s) before the Regional Board and then filing a petition to the State Board. The District does not agree with this contention. Nothing in this Agreement shall prejudice the State Board's ability to assert the same defenses. These reservations do not limit any other defenses of either of the Parties or the State Board.

e. If the Regional Board issues the Second 5-Year Permit as provided in Section B.2.b.1 or B.2.b.2 above, the District covenants not to petition to the State Board or otherwise appeal the Second 5-Year Permit's BOD, TSS or Conversion Schedule requirements, so long as said Permit remains in effect and unchanged. However, the District reserves the right to petition to the State Board or otherwise appeal the Second 5-Year Permit if any change(s) are made to said Permit or if the Conversion Period or Conversion Schedule are modified by the Regional Board or State Board.

f. The District reserves the right to challenge any other provisions of the Second 5-Year Permit besides the Permit's BOD, TSS or Conversion Schedule requirements, including, but not limited to any new requirements for collection system maintenance, any new or more stringent requirements than the requirements of the First 5-Year Permit, and effluent limits for constituents not demonstrated to have reasonable potential to cause or contribute to a violation of water quality standards, except as otherwise provided in the Ocean Plan. Any such challenge shall be commenced by raising the issue(s) before the Regional Board and then filing a petition to the State Board under Water Code Section 13320.

g. A challenge by the District or any other person of any provisions of the First 5-Year Permit or the Second 5-Year Permit that do not relate to the 301(h) Waiver or the Conversion Schedule shall not relieve the District of any obligation to comply with the Conversion Schedule and shall not toll any due date in the Conversion Schedule.

h. Except as otherwise provided in this Agreement, the District reserves the right to (i) pursue a future administrative or judicial challenge to the underlying water quality objectives, both numeric and narrative, as applied in future permits; (ii) challenge future revisions to any permit other than the First 5-Year Permit or the Second 5-Year Permit, without limitation, on all legal theories raised in the District's Amended Petition, and (iii) challenge any new permit or amendment thereto should there be a change in law that renders, in the District's opinion, any provision of the permit, as amended, inconsistent with the Clean Water Act or the Porter-Cologne Water Quality Control Act.

D. REQUIRED ACTIONS DURING CONVERSION PERIOD.

1. Enhanced Treatment.

a. If, during the Conversion Period, the District's effluent monthly (30-day) average mass emissions for total suspended solids (TSS) or biochemical oxygen demand (BOD) measured over the three-month period of June, July, and August of each year exceed eighty-five percent (85%) of the mass emissions limit set forth in the District's current 301(h) Permit, the District will enhance its treatment process by the use of polymers or other available technologies of equal or lesser cost (taking into account capital, operations and maintenance costs) and equal or better effectiveness ("Enhanced Treatment") in an effort to reduce mass emissions to eighty-five percent (85%) of the Permit limit.

b. Mass emissions for TSS and BOD will be re-evaluated in June of each year following the commencement of Enhanced Treatment to determine if emissions continue to exceed the Enhanced Treatment trigger of eighty-five percent (85%) without Enhanced Treatment. If the monthly (30-day) average mass emissions for TSS or BOD in June exceed ninety (90%), Enhanced Treatment will continue until tested again in June of the following year. If the monthly (30-day) average mass emissions for TSS or BOD in June are greater than eighty-five percent (85%) but less than ninety (90%), testing will continue through July and August to determine whether the three month monthly (30-day) average mass emissions for TSS or BOD exceed eighty-five percent (85%) of the Permit limit. If the monthly (30-day) average mass emissions for TSS or BOD for the three-month period of June, July, and August do not exceed the eighty-five percent (85%)

Enhanced Treatment trigger, Enhanced Treatment may be discontinued until the Enhanced Treatment trigger is exceeded again in the future, as determined by subsequent three-month results during June, July, and August.

c. If the use of Enhanced Treatment fails to achieve mass emissions at or below the Enhanced Treatment triggers for any six (6) consecutive monthly periods, the District shall investigate and apply, with the approval of the Regional Board's Executive Officer, other technologies of equal or lesser cost (taking into account capital, operations and maintenance costs) and equal or better effectiveness if any such technologies are readily available and are capable of achieving at least eighty-five percent (85%) of the permitted mass emissions limits.

d. The Enhanced Treatment triggers set forth above are not effluent limitations, and, if exceeded, will not be considered a violation of the District's NPDES permit, waste discharge requirements or water quality certification and will not subject the District to civil liabilities, fines, penalties or other enforcement action. If the District exceeds an Enhanced Treatment trigger and is therefore required to commence or continue Enhanced Treatment, the District will not be considered to have committed a violation of the District's NPDES permit, waste discharge requirements, or water quality certification, and will not be subject to civil liabilities, fines, penalties, or other enforcement action if Enhanced Treatment fails to bring effluent mass emissions for TSS or BOD, as measured above, below eighty-five percent (85%) of the mass emissions limit set forth in the District's current 301(h) permit.

e. The Enhanced Treatment requirements shall not be stated as NPDES permit conditions that could give rise to administrative civil liability, but shall be incorporated into the findings adopted as part of any 301(h) or NPDES permit issued to the District during the Conversion Period.

2. Force Majeure

a. A "force majeure event" is any event beyond the reasonable control of the District, its contractors, or any entity controlled by the District that delays or prevents the performance of any obligation under this Agreement. Force majeure events include, without limitation, (i) fire, strike, war, insurrection, terrorism, natural disaster, civil or military authority, civil disturbance; and (ii) to the extent they are beyond the District's reasonable control, government restriction on or prohibition of the task(s) set forth in the Compliance Schedule,

lawsuits, court orders, injunctions, delays by other agencies with approval authority relating to or permitting of the conversion of the District's treatment facilities to secondary treatment, and site conditions discovered during construction if the District exercised reasonable diligence, but did not foresee such site condition prior to the commencement of construction. If a force majeure event occurs, the District shall undertake all reasonable measures to prevent or minimize the delay resulting from the event.

b. If any event occurs that the District believes is a force majeure event, the District shall notify the Regional Board by telephone as soon as reasonably possible. The District shall endeavor to notify the Regional Board in writing within fifteen (15) calendar days of the date on which the District first knew of the event, and shall provide such written notice within fifteen (15) calendar days after the date on which the District first knew the event would cause, or be likely to cause, a delay. The District shall provide the written notice in accordance with Section F.7. The notice shall describe in reasonable detail the anticipated length of time the delay may persist, the cause or causes of the delay, the measures, if any, taken or to be taken by the District to prevent or minimize the delay as well as to prevent future delays, and the timetable by which those measures will be implemented.

c. If a delay has been caused by a force majeure event, the time for performance of the affected requirement(s) shall be extended for a period not to exceed the actual delay in performance resulting from such circumstance. In addition, stipulated penalties shall not be due for said delay. The Executive Officer shall notify the District of the agreement or disagreement with the District's claim of a delay or impediment to performance within seven (7) calendar days of receipt of a written notice that complies with Section D.2.b, above. If the Executive Officer does not so agree, or does not notify the District of its decision within seven (7) calendar days after receiving notice (in which case the Executive Officer shall be deemed to have disagreed), such decision (or deemed decision) by the Executive Officer shall not constitute final agency action and the dispute will be resolved administratively or judicially pursuant to Section E. In any such dispute, the District bears the burden of proving, by a preponderance of the evidence, that each claimed force majeure event is a force majeure event; that the District gave the notice required by this Section; that the force majeure event caused the delay that the District claims was attributable to that event; and that the District undertook all reasonable measures to prevent or minimize any delay caused by the event.

d. Unanticipated or increased costs or expenses associated with the implementation of this Settlement Agreement or changed financial circumstances shall not constitute a force majeure event hereunder.

e. An extension of one compliance date under the Compliance Schedule based on a particular incident may, but shall not necessarily, result in an extension of a subsequent compliance date or dates.

f. Where the Regional Board agrees to an extension of time, the appropriate modification(s) shall be made to the Conversion Schedule in accordance with Section F.5, below.

g. If the Regional Board issues the First or Second 5-Year Permit or takes other action during the Conversion Period and, in connection therewith, includes more stringent requirements than those set forth herein, i.e., more stringent BOD or TSS limits or a shorter Conversion Period (either explicitly or through the imposition of effluent limits or other requirements that require a shorter Conversion Period) and, as required by Section B.2.c.2(a), the District files a timely petition for review with the State Board, a force majeure event shall be deemed to be occurring until such time as the District has been issued a permit that includes the requirements provided for herein. If the Regional Board does not act on the District's First 5-Year Permit by December 3, 2004, a force majeure event shall be deemed to be occurring from December 4, 2004 until such time as the District has been issued the First 5-Year Permit (unless prior to such permit issuance this Agreement becomes null and void). If the Regional Board does not act on the District's Second 5-Year Permit by March 31, 2010, a force majeure event shall be deemed to be occurring from April 1, 2010 until such time as the District has been issued a Second 5-Year Permit (unless prior to such permit issuance this Agreement becomes null and void).

h. If the Regional Board concurs in the 301(h) waiver and issues 401 certification of the First 5-Year Permit and, in connection therewith, includes BOD and TSS limits and a Conversion Schedule as set forth herein (and if the action does not require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), and a petition for review is filed by a third party pursuant to Water Code section 13320, which challenges such BOD limits, TSS limits or the Conversion Schedule (or which seeks to require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), a force majeure event shall be deemed to be occurring commencing on the date for the District to Send Requests for Environmental and Consulting Engineering Proposals

(Task A.3) under the Conversion Schedule (as said date may be revised by force majeure events or by the agreement of the Parties) and continuing until such time as the State Board dismisses the petition without review (explicitly or by operation of law pursuant to 23 C.C.R. §2050.5) or issues an order upholding the BOD and TSS limits and the Conversion Schedule approved by the Regional in connection with the First 5-Year Permit.

i. If the Regional Board issues the Second 5-Year Permit as provided in Section B.2.b.1 or B.2.b.2 and, in connection therewith, includes BOD and TSS limits and a Conversion Schedule as set forth herein (and if the action does not require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), and a petition for review is filed by a third party pursuant to Water Code section 13320, which challenges such BOD limits, TSS limits or the Conversion Schedule (or which seeks to require, either explicitly or through the imposition of effluent limits or other requirements, a shorter Conversion Schedule), a force majeure event shall be deemed to be occurring commencing on the date for the District to complete 100% Design (Task E.5) under the Conversion Schedule (as said date may be revised by force majeure events or by the agreement of the Parties) and continuing until such time as the State Board dismisses the petition without review (explicitly or by operation of law pursuant to 23 C.C.R. §2050.5) or issues an order upholding the BOD and TSS limits and the Conversion Schedule approved by the Regional in connection with the Second 5-Year Permit.

j. The Parties agree not to request abeyance, and to oppose any request for abeyance, of a third party petition described in Sections D.2.h or i.

E. ENFORCEMENT

1. Except for force majeure events as provided above, and except as otherwise agreed by the Parties, if the District fails to complete a required action by the date set forth in the Conversion Schedule, stipulated penalties shall accrue as set forth below. Stipulated penalties shall accrue only with respect to one task on the Conversion Schedule at a time. In other words, if the District is behind schedule with respect to more than one required task, stipulated penalties shall accrue only for the most recent task.

a. Stipulated penalties shall be \$200/day for all tasks that are to be completed prior to the issuance of the Second 5-Year Permit. The District shall pay all such accrued stipulated penalties, together with interest at the rate of five percent (5%) per annum, within thirty (30) days

following the date on which the Second 5-Year Permit becomes final. If the District is current (i.e. has "caught up") by the date on which the Second 5-Year Permit becomes final, or if the Second 5-Year Permit is denied by the Regional Board or by the State Board on petition, all accrued stipulated penalties and interest thereon shall be cancelled and forgiven. The Second 5-Year Permit "becomes final" for purposes of this paragraph 30 days after the Regional Board issues the Second 5-Year Permit as provided in Section B.2.b.1 or B.2.b.2, if no petition challenging the BOD or TSS limits or Conversion Schedule is filed; or on the date the State Board resolves any petition challenging the BOD or TSS limits or Conversion Schedule by a dismissal (explicitly or by operation of law) or order having the effect of upholding or issuing a Second 5-Year Permit.

b. Stipulated penalties shall be \$200/day for all tasks that are to be completed after the issuance of the Second 5-Year Permit and prior to the date on which the District is to achieve full compliance with secondary treatment requirements. The District shall pay all such accrued stipulated penalties, together with interest at the rate of five percent (5%) per annum, within thirty (30) days following the date on which the District is to achieve full compliance with secondary treatment requirements. If the District is current (i.e. has "caught up") by the due date for issuing a Notice to Proceed, all stipulated penalties and interest that have accrued after the issuance of the Second 5-year Permit, but prior to the due date for issuing a Notice to Proceed, shall be cancelled and forgiven.

c. Stipulated penalties shall be \$500/day for the first 180 days if the District fails to achieve full compliance with secondary treatment requirements by the date specified in the Conversion Schedule. For the next 185 days following the initial 180 days, stipulated penalties shall be \$1,000/day until the District achieves full compliance with secondary treatment requirements. After 365 days, stipulated penalties shall be \$2,000/day until the District achieves full compliance with secondary treatment requirements. Stipulated penalties under this paragraph shall be paid by the District quarterly, commencing on the first day of the next calendar quarter that is at least thirty (30) days following the date on which the stipulated penalty is incurred.

2. Except for force majeure events as provided above, and except as otherwise agreed by the Parties, if the District fails to undertake an Enhanced Treatment activity as required herein, the District shall pay stipulated penalties in the amount of \$200/day until the Enhanced Treatment activity has been undertaken. Stipulated penalties under this paragraph shall be paid by the District

quarterly, commencing on the first day of the next calendar quarter that is at least thirty (30) days following the date on which the stipulated penalty is incurred and shall be in addition to and separate from any stipulated penalties payable under Section E.1, above.

3. In addition to or in lieu of seeking stipulated penalties, the Regional Board may seek judicial enforcement, including specific performance, of this Agreement, including without limitation the tasks and due dates set forth in the Conversion Schedule or the Enhanced Treatment requirements.

4. If the Executive Officer does not agree that a delay in the District's performance was caused by a force majeure event as defined in Section D.2 and the District does not stipulate in writing to the amount of penalties due after missing a milestone under the Conversion Schedule, the Regional Board may also impose stipulated penalties by issuing an administrative civil liability complaint, pursuant to Water Code Sections 13323-13326 and 13328. The Regional Board may hold administrative civil liability proceedings at any time, but any administrative civil liability order shall include the applicable payment due date and conditions of cancellation and forgiveness set forth in Sections E.1.a and E.1.b. The District may, but shall not be required to, waive the right to a hearing. If the District does not waive the right to a hearing, the District agrees not to challenge the daily amount of the stipulated penalties as set forth in this Agreement. The issues for hearing may include, without limitation, whether the District undertook or completed the required task or activity by the completion date(s) in question, the number of days or months for which stipulated penalties apply, and whether the delay, if any, was caused by force majeure as defined in Section D.2. The District agrees not to contest the use of the administrative civil liability process and waives any claim that Water Code Sections 13323-13326 and 13328 do not apply to administrative or judicial enforcement of the stipulated penalty provisions of this Agreement. However, the District reserves the right to petition to the State Board for review of any decision made by the Regional Board under this paragraph. Upon the filing of such a petition, the District and the Regional Board shall jointly request that the petition be held in abeyance until such time as it is determined, as applicable, that (i) the stipulated penalties at issue are not subject to cancellation and forgiveness on the date the Second 5-Year Permit becomes final as set forth in Section E.1.a, (ii) the stipulated penalties at issue are not subject to cancellation and forgiveness on the date for issuing the notice to proceed to

the contractor as set forth in Section E.1.b, or (iii) the District has achieved full compliance with secondary treatment requirements, such that it can be determined whether any stipulated penalties are due and the amount thereof. The intent of the foregoing provisions is to ensure that there will be no more than three (3) occasions on which the State Board will be required to take action on a petition filed by the District with respect to the issue of stipulated penalties for completion dates under the Conversion Schedule. Following the expiration of the abeyance and either final action by the State Board on the District's petition or the dismissal of the District's petition by the State Board without review, the District may, at the times described in subparagraphs (i), (ii) and (iii), above, file a judicial appeal in accordance with California Water Code Section 13330 with respect to the administrative civil liability order. In any such judicial appeal(s), the District agrees not to challenge the daily amount of the stipulated penalties as set forth in this Agreement. The issues in such judicial appeal(s) may include, without limitation, whether the District undertook or completed the required task or activity by the completion date(s) in question, the number of days or months for which stipulated penalties apply, and whether the delay, if any, was caused by force majeure as defined in Section D.2, provided that nothing in this paragraph 4 shall relieve the District of any obligation to exhaust applicable administrative remedies prior to seeking judicial relief.

5. The requirements of this Agreement with respect to (i) the Conversion Schedule, (ii) the Conversion Period, (iii) Enhanced Treatment, and (iv) stipulated penalties shall be incorporated into the findings adopted by the Regional Board in connection with the First and Second 5-Year Permits. In addition to the procedures set forth above for enforcement with respect to failure to meet the Conversion Schedule or to undertake Enhanced Treatment activities, the Regional Board may use any enforcement action or procedure to remedy any and all violations of the terms of any permit (including the First or Second 5-Year Permits) issued to the District, including, without limitation, any remedy set forth in the California Water Code. Nothing in this Agreement shall limit other remedies available to the Regional Board to enforce the terms and conditions of any permit or 401 certification issued to the District.

F. MISCELLANEOUS PROVISIONS

1. **No Admission of Liability.** Except as set forth in this Agreement, nothing in this Agreement shall be construed as an admission of liability by any Party, or as a waiver of any future

claims or causes of action, or as an agreement on the appropriate standard of review or causes of action or claims that may be asserted in challenging any permit issued to the District or the requirements thereof.

2. Signatures. This Agreement may be signed in counterparts. Signatures transmitted by facsimile shall be deemed to have the same force and effect as original signatures. Photocopies and facsimiles of counterparts shall be binding and admissible as originals.

3. Representation by Counsel. The Parties agree and confirm that this Agreement has been freely and voluntarily entered into by the Parties, each of which has been fully represented by counsel at every stage of the proceedings, and that no representations or promises of any kind, other than as contained herein, have been made by any Party to induce any other Party to enter into this Agreement. The language of this Agreement shall be construed in its entirety, according to its fair meaning, and not strictly for or against any of the Parties.

4. Integrated Agreement. Except as otherwise set forth in this Settlement Agreement, this Agreement contains the entire understanding of the Parties concerning the matters contained herein and constitutes an integrated agreement.

5. Subsequent Amendment. This Agreement may not be altered, amended, modified, or otherwise changed except after a public meeting by a writing executed by each of the Parties. The Regional Board may, on a case-by-case basis in a public meeting, delegate to the Executive Officer the authority to approve and sign on behalf of the Regional Board written amendments to this Agreement.

6. Effective Date. This Agreement is effective when signed by all Parties and the effective date shall be date of the last signature.

7. Notice Requirements. Any notice provided under this Agreement shall be provided by facsimile and first class mail as follows:

If to the District:
Kamil S. Azoury, General Manager
GOLETA SANITARY DISTRICT
P. O. Box 906
Goleta, CA 93116
Telephone: 805-967-4519
Facsimile: 805-964-3583

Richard G. Battles, Esq.
MULLEN & HENZEL LLP
112 E. Victoria St., P.O. Drawer 789
Santa Barbara, CA 93102-0789

If to the Regional Board:
Roger W. Briggs, Executive Officer
REGIONAL WATER QUALITY CONTROL BOARD,
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
Telephone: 805-549-3147
Facsimile: 805-543-0397

Lori T. Okun, Esq.
STATE WATER RESOURCES CONTROL BOARD
1001 I Street, P.O. Box 100

Telephone: 805-966-1501
Facsimile: 805-966-9204

Melissa A. Thorne, Esq.
DOWNEY BRAND, LLP
555 Capitol Mall, Tenth Floor
Sacramento, CA 95814-4686
Telephone: 916-444-1000
Facsimile: 916-444-2100

Sacramento, CA 95814
Telephone: 916-341-5165
Facsimile: 916-341-5199

Marilyn H. Levin, Esq.
OFFICE OF THE ATTORNEY GENERAL
300 South Spring Street, Suite 1702
Los Angeles, CA 90013-1233
Telephone: 213-897-2612
Facsimile: 213-897-2802

8. **Authority.** Each Party to this Agreement warrants that the individual executing this Agreement is duly authorized to do so and that execution is the act and deed of the Party.

9. **Counsel Approval.** Counsel for the represented Parties have negotiated, read, and approved as to form the language of this Agreement, the language of which shall be construed in its entirety according to its fair meaning and not strictly for or against any of the Parties.

10. **Fees and Costs.** The Parties acknowledge and agree that each of them will bear their own attorneys' fees, costs, including costs pursuant to C.C.P. section 1094.5, and expenses arising out of and/or connected with the disputes which are the subject of this Agreement, including but not limited to all attorneys' fees, costs, and expenses arising out of the Amended Petition or the negotiation, drafting, and execution of this Agreement, and any dispute arising out of this Agreement. The agreement that each party shall bear its own fees, costs, and expenses arising out of the claims alleged in the Amended Petition as of the date of this Agreement shall apply notwithstanding any provision that this agreement shall become null and void and regardless of when such fees or costs are incurred.

11. **Severability.** In the event that any provision of this Agreement is determined by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect.

12. **Successors in Interest.** If applicable law allows the Executive Officer to issue waste discharge requirements at the time of consideration of the Second 5-Year Permit, then all provisions of this Agreement requiring the Executive Officer to make any recommendation shall not apply to the Executive Officer, but shall instead apply to the highest-ranking Regional Board staff person other than the Executive Officer. If applicable law does not include a process to petition to the State Board or its successor, then the District shall exhaust all other administrative remedies then available where this Agreement requires the District to file a petition to the State Board or

otherwise exhaust administrative remedies. In all other cases, whenever in this Agreement one of the Parties hereto is named or referenced, the legal representatives, successors, and permitted assigns of such Party shall be included and all covenants and agreements contained in this Agreement by or on behalf of any of the Parties hereto shall bind and inure to the benefit of their respective successors and permitted assigns, whether so expressed or not.

13. **References.** This Agreement is made without respect to number or gender, and as such, any reference to a party hereto by any pronoun shall include the singular, the plural, the masculine, and the feminine.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the dates indicated below.

Dated: _____, 2004

CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD, CENTRAL COAST REGION

By: _____
Roger W. Briggs, Executive Officer

Dated: _____, 2004

GOLETA SANITARY DISTRICT

By: _____
John S. Carter, President Pro-Tem

By: _____
Kamil S. Azoury,
General Manger/Board Secretary

APPROVED AS TO FORM

Dated: _____, 2004

Lori T. Okun
Regional Board Counsel

Dated: _____, 2004

MULLEN & HENZELL L.L.P.

By: _____

Richard G. Battles
Attorneys for Goleta Sanitary District

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II. WATER QUALITY OBJECTIVES

A. General Provisions

1. This chapter sets forth limits or levels of water quality characteristics for ocean* waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. The discharge of waste* shall not cause violation of these objectives.
2. The Water Quality Objectives and Effluent Limitations are defined by a statistical distribution when appropriate. This method recognizes the normally occurring variations in treatment efficiency and sampling and analytical techniques and does not condone poor operating practices.
3. Compliance with the water quality objectives of this chapter shall be determined from samples collected at stations representative of the area within the waste field where initial* dilution is completed.

B. Bacterial Characteristics

1. Water-Contact Standards

- 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 used for water contact sports, as determined by the Regional Board, but including all kelp* beds, the following bacterial objectives shall be maintained throughout the water column:
 - (1) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).
 - (2) The fecal coliform density based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.
- b. The "Initial* Dilution Zone" of wastewater outfalls shall be excluded from designation as "kelp* beds" for purposes of bacterial standards, and Regional Boards should recommend extension of such exclusion zone where warranted to the SWRCB (for consideration under Chapter III.H.). Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp* beds for purposes of bacterial standards.

* See Appendix I for definition of terms.

EXHIBIT NO.	5
APPLICATION NO.	
	CC-13-02
	Ocean Plan

2. Shellfish* Harvesting Standards

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

- (1) 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

1. Floating particulates and grease and oil shall not be visible.
2. The discharge of waste* shall not cause aesthetically undesirable discoloration of the ocean* surface.
3. Natural* light shall not be significantly* reduced at any point outside the initial* dilution zone as the result of the discharge of waste*.
4. The rate of deposition of inert solids and the characteristics of inert solids in ocean* sediments shall not be changed such that benthic communities are degraded*.

D. Chemical Characteristics

1. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste* materials.
2. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
3. The dissolved sulfide concentration of waters in and near sediments shall not be significantly* increased above that present under natural conditions.
4. The concentration of substances set forth in Chapter II, Table B, in marine sediments shall not be increased to levels which would degrade* indigenous biota.
5. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade* marine life.
6. Nutrient materials shall not cause objectionable aquatic growths or degrade* indigenous biota.
7. Numerical Water Quality Objectives
 - a. Table B water quality objectives apply to all discharges within the jurisdiction of this Plan.
 - b. Table B Water Quality Objectives

* See Appendix I for definition of terms.

**TABLE B
WATER QUALITY OBJECTIVES**

		Limiting Concentrations		
	Units of Measurement	6-Month Median	Daily Maximum	Instantaneous Maximum
OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE				
Arsenic	ug/l	8.	32.	80.
Cadmium	ug/l	1.	4.	10.
Chromium (Hexavalent) (see below, a)	ug/l	2.	8.	20.
Copper	ug/l	3.	12.	30.
Lead	ug/l	2.	8.	20.
Mercury	ug/l	0.04	0.16	0.4
Nickel	ug/l	5.	20.	50.
Selenium	ug/l	15.	60.	150.
Silver	ug/l	0.7	2.8	7.
Zinc	ug/l	20.	80.	200.
Cyanide (see below, b)	ug/l	1.	4.	10.
Total Chlorine Residual (For intermittent chlorine sources see below, c)	ug/l	2.	8.	60.
Ammonia (expressed as nitrogen)	ug/l	600.	2400.	6000.
Acute* Toxicity	TUa	N/A	0.3	N/A
Chronic* Toxicity	TUc	N/A	1.	N/A
Phenolic Compounds (non-chlorinated)	ug/l	30.	120.	300.
Chlorinated Phenolics	ug/l	1.	4.	10.
Endosulfan	ug/l	0.009	0.018	0.027
Endrin	ug/l	0.002	0.004	0.006
HCH*	ug/l	0.004	0.008	0.012
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.			

* See Appendix I for definition of terms.

Table B Continued

Chemical	30-day Average (ug/l)	
	Decimal Notation	Scientific Notation
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH – NONCARCINOGENS		
acrolein	220.	2.2×10^2
antimony	1,200.	1.2×10^3
bis(2-chloroethoxy) methane	4.4	4.4×10^0
bis(2-chloroisopropyl) ether	1,200.	1.2×10^3
chlorobenzene	570.	5.7×10^2
chromium (III)	190,000.	1.9×10^5
di-n-butyl phthalate	3,500.	3.5×10^3
dichlorobenzenes*	5,100.	5.1×10^3
diethyl phthalate	33,000.	3.3×10^4
dimethyl phthalate	820,000.	8.2×10^5
4,6-dinitro-2-methylphenol	220.	2.2×10^2
2,4-dinitrophenol	4.0	4.0×10^0
ethylbenzene	4,100.	4.1×10^3
fluoranthene	15.	1.5×10^1
hexachlorocyclopentadiene	58.	5.8×10^1
nitrobenzene	4.9	4.9×10^0
thallium	2.	$2. \times 10^0$
toluene	85,000.	8.5×10^4
tributyltin	0.0014	1.4×10^{-3}
1,1,1-trichloroethane	540,000.	5.4×10^5
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH – CARCINOGENS		
acrylonitrile	0.10	1.0×10^{-1}
aldrin	0.000022	2.2×10^{-5}
benzene	5.9	5.9×10^0
benzidine	0.000069	6.9×10^{-5}
beryllium	0.033	3.3×10^{-2}
bis(2-chloroethyl) ether	0.045	4.5×10^{-2}
bis(2-ethylhexyl) phthalate	3.5	3.5×10^0
carbon tetrachloride	0.90	9.0×10^{-1}
chlordane*	0.000023	2.3×10^{-5}
chlorodibromomethane	8.6	8.6×10^0

* See Appendix I for definition of terms.

Table B Continued

Chemical	30-day Average (ug/l)	
	Decimal Notation	Scientific Notation
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH – CARCINOGENS		
chloroform	130.	1.3×10^2
DDT*	0.00017	1.7×10^{-4}
1,4-dichlorobenzene	18.	1.8×10^1
3,3'-dichlorobenzidine	0.0081	8.1×10^{-3}
1,2-dichloroethane	28.	2.8×10^1
1,1-dichloroethylene	0.9	9×10^{-1}
dichlorobromomethane	6.2	6.2×10^0
dichloromethane	450.	4.5×10^2
1,3-dichloropropene	8.9	8.9×10^0
dieldrin	0.00004	4.0×10^{-5}
2,4-dinitrotoluene	2.6	2.6×10^0
1,2-diphenylhydrazine	0.16	1.6×10^{-1}
halomethanes*	130.	1.3×10^2
heptachlor	0.00005	5×10^{-5}
heptachlor epoxide	0.00002	2×10^{-5}
hexachlorobenzene	0.00021	2.1×10^{-4}
hexachlorobutadiene	14.	1.4×10^1
hexachloroethane	2.5	2.5×10^0
isophorone	730.	7.3×10^2
N-nitrosodimethylamine	7.3	7.3×10^0
N-nitrosodi-N-propylamine	0.38	3.8×10^{-1}
N-nitrosodiphenylamine	2.5	2.5×10^0
PAHs*	0.0088	8.8×10^{-3}
PCBs*	0.000019	1.9×10^{-5}
TCDD equivalents*	0.0000000039	3.9×10^{-9}
1,1,2,2-tetrachloroethane	2.3	2.3×10^0
tetrachloroethylene	2.0	2.0×10^0
toxaphene	0.00021	2.1×10^{-4}
trichloroethylene	27.	2.7×10^1
1,1,2-trichloroethane	9.4	9.4×10^0
2,4,6-trichlorophenol	0.29	2.9×10^{-1}
vinyl chloride	36.	3.6×10^1

* See Appendix I for definition of terms.

Table B Notes:

- a) Dischargers may at their option meet this objective as a total chromium objective.
- b) If a discharger can demonstrate to the satisfaction of the Regional Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR PART 136, as revised May 14, 1999.
- c) Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours, shall be determined through the use of the following equation:

$$\log y = -0.43 (\log x) + 1.8$$

where: y = the water quality objective (in ug/l) to apply when chlorine is being discharged;
x = the duration of uninterrupted chlorine discharge in minutes.

E. Biological Characteristics

1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded*.
2. The natural taste, odor, and color of fish, shellfish*, or other marine resources used for human consumption shall not be altered.
3. The concentration of organic materials in fish, shellfish* or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

F. Radioactivity

1. Discharge of radioactive waste* shall not degrade* marine life.

* See Appendix I for definition of terms.

III. PROGRAM OF IMPLEMENTATION

A. General Provisions

1. Effective Date

- a. The *Water Quality Control Plan, Ocean Waters of California, California Ocean Plan* was adopted and has been effective since 1972. There have been multiple amendments of the Ocean Plan since its adoption.

This document includes the most recent amendments of the Ocean Plan as approved by the SWRCB on November 16, 2000. However, amendments in this version of the Ocean Plan do not become effective until approved by the US EPA. Persons using the Ocean Plan prior to US EPA approval of this version should reference the 1997 Ocean Plan. Once approved by the US EPA, this document (the 2001 Ocean Plan) will supercede the 1997 Ocean Plan.

2. General Requirements For Management Of Waste Discharge To The Ocean*

- a. Waste* management systems that discharge to the ocean* must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.
- b. Waste discharged* to the ocean* must be essentially free of:
 - (1) Material that is floatable or will become floatable upon discharge.
 - (2) Settleable material or substances that may form sediments which will degrade* benthic communities or other aquatic life.
 - (3) Substances which will accumulate to toxic levels in marine waters, sediments or biota.
 - (4) Substances that significantly* decrease the natural* light to benthic communities and other marine life.
 - (5) Materials that result in aesthetically undesirable discoloration of the ocean* surface.
- c. Waste* effluents shall be discharged in a manner which provides sufficient initial* dilution to minimize the concentrations of substances not removed in the treatment.
- d. Location of waste* discharges must be determined after a detailed assessment of the oceanographic characteristics and current patterns to assure that:
 - (1) Pathogenic organisms and viruses are not present in areas where shellfish* are harvested for human consumption or in areas used for swimming or other body-contact sports.
 - (2) Natural water quality conditions are not altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.
 - (3) Maximum protection is provided to the marine environment.

* See Appendix I for definition of terms.

- e. Waste* that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing* and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used.

3. Areas of Special Biological Significance

- a. ASBS* shall be designated by the SWRCB following the procedures provided in Appendix IV. A list of ASBS* is available in Appendix V.

4. Combined Sewer Overflow: Notwithstanding any other provisions in this plan, discharges from the City of San Francisco's combined sewer system are subject to the US EPA's Combined Sewer Overflow Policy.

B. Table A Effluent Limitations

**TABLE A
EFFLUENT LIMITATIONS**

	Unit of Measurement	Limiting Concentrations		
		Monthly (30-day Average)	Weekly (7-day Average)	Maximum at any time
Grease and Oil	mg/l	25.	40.	75.
Suspended Solids			See below +	
Settleable Solids	MI/l	1.0	1.5	3.0
Turbidity	NTU	75.	100.	225.
PH	Units		Within limit of 6.0 to 9.0 at all times	

Table A Notes:

- + Suspended Solids: Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean*, except that the effluent limitation to be met shall not be lower than 60 mg/l. Regional Boards may recommend that the SWRCB (Chapter IIIJ), with the concurrence of the Environmental Protection Agency, adjust the lower effluent concentration limit (the 60 mg/l above) to suit the environmental and effluent characteristics of the discharge. As a further consideration in making such recommendation for adjustment, Regional Boards should evaluate effects on existing and potential water* reclamation projects.

If the lower effluent concentration limit is adjusted, the discharger shall remove 75% of suspended solids from the influent stream at any time the influent concentration exceeds four times such adjusted effluent limit.

1. Table A effluent limitations apply only to publicly owned treatment works and industrial discharges for which Effluent Limitations Guidelines have not been established pursuant to Sections 301, 302, 304, or 306 of the Federal Clean Water Act.

* See Appendix I for definition of terms.

2. Table A effluent limitations shall apply to a discharger's total effluent, of whatever origin (i.e., gross, not net, discharge), except where otherwise specified in this Plan.
3. The SWRCB is authorized to administer and enforce effluent limitations established pursuant to the Federal Clean Water Act. Effluent limitations established under Sections 301, 302, 306, 307, 316, 403, and 405 of the aforementioned Federal Act and administrative procedures pertaining thereto are included in this plan by reference. Compliance with Table A effluent limitations, or Environmental Protection Agency Effluent Limitations Guidelines for industrial discharges, based on Best Practicable Control Technology, shall be the minimum level of treatment acceptable under this plan, and shall define reasonable treatment and waste control technology.

C. Implementation Provisions for Table B

1. Effluent concentrations calculated from Table B water quality objectives shall apply to a discharger's total effluent, of whatever origin (i.e., gross, not net, discharge), except where otherwise specified in this Plan.
2. Effluent limitations shall be imposed in a manner prescribed by the SWRCB such that the concentrations set forth below as water quality objectives shall not be exceeded in the receiving water upon completion of initial* dilution, except that objectives indicated for radioactivity shall apply directly to the undiluted waste* effluent.
3. Calculation of Effluent Limitations
 - a. Effluent limitations for water quality objectives listed in Table B, with the exception of acute* toxicity and radioactivity, shall be determined through the use of the following equation:

Equation 1: $C_e = C_o + D_m (C_o - C_s)$

where:

C_e = the effluent concentration limit, ug/l

C_o = the concentration (water quality objective) to be met at the completion of initial* dilution, ug/l

C_s = background seawater concentration (see Table C below), ug/l

D_m = minimum probable initial* dilution expressed as parts seawater per part wastewater.

TABLE C
BACKGROUND SEAWATER CONCENTRATIONS (C_s)

Waste Constituent	<u>C_s (ug/l)</u>
Arsenic	3.
Copper	2.
Mercury	0.0005
Silver	0.16
Zinc	8.
For all other Table B parameters, $C_s = 0$.	

* See Appendix I for definition of terms.

b. Determining a Mixing Zone for the Acute* Toxicity Objective

The mixing zone for the acute* toxicity objective shall be ten percent (10%) of the distance from the edge of the outfall structure to the edge of the chronic mixing zone (zone of initial dilution). There is no vertical limitation on this zone. The effluent limitation for the acute* toxicity objective listed in Table B shall be determined through the use of the following equation:

Equation 2: $C_e = C_a + (0.1) D_m (C_a)$

where:

C_a = the concentration (water quality objective) to be met at the edge of the acute mixing zone.

D_m = minimum probable initial* dilution expressed as parts seawater per part wastewater (This equation applies only when $D_m > 24$).

c. Toxicity Testing Requirements based on the Minimum Initial* Dilution Factor for Ocean Waste Discharges

- (1) Dischargers shall conduct acute* toxicity testing if the minimum initial* dilution of the effluent is greater than 1,000:1 at the edge of the mixing zone.
- (2) Dischargers shall conduct either acute* or chronic* toxicity testing if the minimum initial* dilution ranges from 350:1 to 1,000:1 depending on the specific discharge conditions. The RWQCB shall make this determination.
- (3) Dischargers shall conduct chronic* toxicity testing for ocean waste discharges with minimum initial* dilution factors ranging from 100:1 to 350:1. The RWQCBs may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters.
- (4) Dischargers shall conduct chronic toxicity testing if the minimum initial* dilution of the effluent falls below 100:1 at the edge of the mixing zone.

d. For the purpose of this Plan, minimum initial* dilution is the lowest average initial* dilution within any single month of the year. Dilution estimates shall be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents, of sufficient strength to influence the initial* dilution process, flow across the discharge structure.

e. The Executive Director of the SWRCB shall identify standard dilution models for use in determining D_m , and shall assist the Regional Board in evaluating D_m for specific waste discharges. Dischargers may propose alternative methods of calculating D_m , and the Regional Board may accept such methods upon verification of its accuracy and applicability.

* See Appendix I for definition of terms.

- f. The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
- g. The daily maximum shall apply to flow weighted 24 hour composite samples.
- h. The instantaneous maximum shall apply to grab sample determinations.
- i. If only one sample is collected during the time period associated with the water quality objective (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.
- j. Discharge requirements shall also specify effluent limitations in terms of mass emission rate limits utilizing the general formula:

Equation 3: $\text{lbs/day} = 0.00834 \times C_e \times Q$

where:

C_e = the effluent concentration limit, ug/l

Q = flow rate, million gallons per day (MGD)

- k. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as C_e and the observed flow rate Q in millions of gallons per day. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as C_e and the observed flow rate Q in millions of gallons per day.
- l. Any significant change in waste* flow shall be cause for reevaluating effluent limitations.

4. Minimum* Levels

For each numeric effluent limitation, the Regional Board must select one or more Minimum* Levels (and their associated analytical methods) for inclusion in the permit. The "reported" Minimum* Level is the Minimum* Level (and its associated analytical method) chosen by the discharger for reporting and compliance determination from the Minimum* Levels included in their permit.

a. Selection of Minimum* Levels from Appendix II

The Regional Board must select all Minimum* Levels from Appendix II that are below the effluent limitation. If the effluent limitation is lower than all the Minimum* Levels in Appendix II, the Regional Board must select the lowest Minimum* Level from Appendix II.

* See Appendix I for definition of terms.

b. Deviations from Minimum* Levels in Appendix II

The Regional Board, in consultation with the State Water Board's Quality Assurance Program, must establish a Minimum* Level to be included in the permit in any of the following situations:

1. A pollutant is not listed in Appendix II.
2. The discharger agrees to use a test method that is more sensitive than those described in 40 CFR 136 (revised May 14, 1999).
3. The discharger agrees to use a Minimum* Level lower than those listed in Appendix II.
4. The discharger demonstrates that their calibration standard matrix is sufficiently different from that used to establish the Minimum* Level in Appendix II and proposes an appropriate Minimum* Level for their matrix.
5. A discharger uses an analytical method having a quantification practice that is not consistent with the definition of Minimum* Level (e.g., US EPA methods 1613, 1624, 1625).

5. Use of Minimum* Levels

- a. Minimum* Levels in Appendix II represent the lowest quantifiable concentration in a sample based on the proper application of method-specific analytical procedures and the absence of matrix interferences. Minimum* Levels also represent the lowest standard concentration in the calibration curve for a specific analytical technique after the application of appropriate method-specific factors.

Common analytical practices may require different treatment of the sample relative to the calibration standard. Some examples are given below:

<u>Substance or Grouping</u>	<u>Method-Specific Treatment</u>	<u>Most Common Factor</u>
Volatile Organics	No differential treatment	1
Semi-Volatile Organics	Samples concentrated by extraction	1000
Metals	Samples diluted or concentrated	½, 2, and 4
Pesticides	Samples concentrated by extraction	100

- b. Other factors may be applied to the Minimum* Level depending on the specific sample preparation steps employed. For example, the treatment typically applied when 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 during the computation of the reporting limit. Application of such factors will alter the reported Minimum* Level.
- c. Dischargers are to instruct their laboratories to establish calibration standards so that the Minimum* Level (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. In accordance with Section 4b, above, the discharger's laboratory may employ a calibration standard lower than the Minimum* Level in Appendix II.

* See Appendix I for definition of terms.

6. Sample Reporting Protocols

- a. Dischargers must report with each sample result the reported Minimum* Level (selected in accordance with Section 4, above) and the laboratory's current MDL*.
- b. Dischargers must also report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:
 - (1) Sample results greater than or equal to the reported Minimum* Level must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample).
 - (2) Sample results less than the reported Minimum* Level, but greater than or equal to the laboratory's MDL*, must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").
 - (3) Sample results less than the laboratory's MDL* must be reported as "Not Detected", or ND.

7. Compliance Determination

Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation.

a. Compliance with Single-Constituent Effluent Limitations

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant (see Section 7c, below) in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum* Level.

b. Compliance with Effluent Limitations expressed as a Sum of Several Constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

c. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum* Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

* See Appendix I for definition of terms.

d. Powerplants and Heat Exchange Dischargers

Due to the large total volume of powerplant and other heat exchange discharges, special procedures must be applied for determining compliance with Table B objectives on a routine basis. Effluent concentration values (C_e) shall be determined through the use of equation 1 considering the minimal probable initial* dilution of the combined effluent (in-plant waste streams plus cooling water flow). These concentration values shall then be converted to mass emission limitations as indicated in equation 3. The mass emission limits will then serve as requirements applied to all inplant waste* streams taken together which discharge into the cooling water flow, except that limits for total chlorine residual, acute* (if applicable per Section (3)(c)) and chronic* toxicity and instantaneous maximum concentrations in Table B shall apply to, and be measured in, the combined final effluent, as adjusted for dilution with ocean water. The Table B objective for radioactivity shall apply to the undiluted combined final effluent.

8. Pollutant Minimization Program

a. Pollutant Minimization Program Goal

The goal of the Pollutant Minimization Program is to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the 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 completion and implementation of a Pollution Prevention Plan, required in accordance with CA Water Code Section 13263.3 (d) will fulfill the Pollution Minimization Program requirements in this section.

b. Determining the need for a Pollutant Minimization Program

1. The discharger must develop and conduct a Pollutant Minimization Program if all of the following conditions are true:

- (a) The calculated effluent limitation is less than the reported Minimum* Level.
- (b) The concentration of the pollutant is reported as DNQ
- (c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

2. Alternatively, the discharger must develop and conduct a Pollutant Minimization Program if all of the following conditions are true:

- (a) The calculated effluent limitation is less than the Method Detection Limit*.
- (b) The concentration of the pollutant is reported as ND.
- (c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

* See Appendix I for definition of terms.

- c. Regional Boards may include special provisions in the discharge requirements to require the gathering of evidence to determine whether the pollutant is present in the effluent at levels above the calculated effluent limitation. Examples of evidence may include:

1. health advisories for fish consumption,
2. presence of whole effluent toxicity,
3. results of benthic or aquatic organism tissue sampling,
4. sample results from analytical methods more sensitive than methods included in the permit (in accordance with Section 4b, above).
5. the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL

- d. Elements of a Pollutant Minimization Program

The Regional Board may consider cost-effectiveness when establishing the requirements of a Pollutant Minimization Program. The program shall include actions and submittals acceptable to the Regional Board including, but not limited to, the following:

1. An annual review and semi-annual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;
2. Quarterly monitoring for the reportable pollutant in the influent to the wastewater treatment system;
3. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the calculated effluent limitation;
4. Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy; and,
5. An annual status report that shall be sent to the Regional Board including:
 - (a) All Pollutant Minimization Program monitoring results for the previous year;
 - (b) A list of potential sources of the reportable pollutant;
 - (c) A summary of all action taken in accordance with the control strategy; and,
 - (d) A description of actions to be taken in the following year.

9. Toxicity Reduction Requirements

- a. If a discharge consistently exceeds an effluent limitation based on a toxicity objective in Table B, a toxicity reduction evaluation (TRE) is required. The TRE shall include all reasonable steps to identify the source of toxicity. Once the source(s) of toxicity is identified, the discharger shall take all reasonable steps necessary to reduce toxicity to the required level.

* See Appendix I for definition of terms.

- b. The following shall be incorporated into waste discharge requirements: (1) a requirement to conduct a TRE if the discharge consistently exceeds its toxicity effluent limitation, and (2) a provision requiring a discharger to take all reasonable steps to reduce toxicity once the source of toxicity is identified.

D. Implementation Provisions for Bacterial Assessment and Remedial Action Requirements

1. The requirements listed below shall be used to determine the occurrence and extent of any impairment of a beneficial use due to bacterial contamination, generate information which can be used in the development of an enterococcus standard, and provide the basis for remedial actions necessary to minimize or eliminate any impairment of a beneficial use.
 - a. Measurement of enterococcus density shall be conducted at all stations where measurement of total and fecal coliforms are required. In addition to the requirements of Chapter II.B.1, if a shore station consistently exceeds a coliform objective or exceeds a geometric mean enterococcus density of 24 organisms per 100 ml for a 30-day period or 12 organisms per 100 ml for a six-month period, the Regional Board shall require the appropriate agency to conduct a survey to determine if that agency's discharge is the source of the contamination. The geometric mean shall be a moving average based on no less than five samples per month, spaced evenly over the time interval. When a sanitary survey identifies a controllable source of indicator organisms associated with a discharge of sewage, the Regional Board shall take action to control the source.
 - b. Waste discharge requirements shall require the discharger to conduct sanitary surveys when so directed by the Regional Board. Waste discharge requirements shall contain provisions requiring the discharger to control any controllable discharges identified in a sanitary survey.

E. Implementation Provisions For Areas* of Special Biological Significance (ASBS)

1. Waste* shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.
2. Regional Boards may approve waste discharge requirements or recommend certification for limited-term (i.e. weeks or months) activities in ASBS*. Limited-term activities include, but are not limited to, activities such as maintenance/repair of existing boat facilities, restoration of sea walls, repair of existing storm water pipes, and replacement/repair of existing bridges. Limited-term activities may result in temporary and short-term changes in existing water quality. Water quality degradation shall be limited to the shortest possible time. The activities must not permanently degrade water quality or result in water quality lower than that necessary to protect existing uses, and all practical means of minimizing such degradation shall be implemented.

* See Appendix I for definition of terms.

F. Revision of Waste* Discharge Requirements

1. The Regional Board shall revise the waste* discharge requirements for existing* discharges as necessary to achieve compliance with this Plan and shall also establish a time schedule for such compliance.
2. The Regional Boards may establish more restrictive water quality objectives and effluent limitations than those set forth in this Plan as necessary for the protection of beneficial uses of ocean* waters.
3. Regional Boards may impose alternative less restrictive provisions than those contained within Table B of the Plan, provided an applicant can demonstrate that:
 - a. Reasonable control technologies (including source control, material substitution, treatment and dispersion) will not provide for complete compliance; or
 - b. Any less stringent provisions would encourage water* reclamation;
4. Provided further that:
 - a. Any alternative water quality objectives shall be below the conservative estimate of chronic* toxicity, as given in Table D, and such alternative will provide for adequate protection of the marine environment;
 - b. A receiving water quality toxicity objective of 1 TUc is not exceeded; and
 - c. The State Board grants an exception (Chapter III. I.) to the Table B limits as established in the Regional Board findings and alternative limits.

**TABLE D
CONSERVATIVE ESTIMATES OF CHRONIC TOXICITY**

Constituent	Estimate of Chronic Toxicity (ug/l)
Arsenic	19.
Cadmium	8.
Hexavalent Chromium	18.
Copper	5.
Lead	22.
Mercury	0.4
Nickel	48.
Silver	3.
Zinc	51.
Cyanide	10.
Total Chlorine Residual	10.0
Ammonia	4000.0
Phenolic Compounds (non-chlorinated)	a) (see below)
Chlorinated Phenolics	a)
Chlorinated Pesticides and PCB's	b)

* See Appendix I for definition of terms.

Table D Notes:

- a) There are insufficient data for phenolics to estimate chronic toxicity levels. Requests for modification of water quality objectives for these waste* constituents must be supported by chronic toxicity data for representative sensitive species. In such cases, applicants seeking modification of water quality objectives should consult the Regional Water Quality Control Board to determine the species and test conditions necessary to evaluate chronic effects.
 - b) Limitations on chlorinated pesticides and PCB's shall not be modified so that the total of these compounds is increased above the objectives in Table B.
-

G. Monitoring Program

1. The Regional Boards shall require dischargers to conduct self-monitoring programs and submit reports necessary to determine compliance with the waste* discharge requirements, and may require dischargers to contract with agencies or persons acceptable to the Regional Board to provide monitoring reports. Monitoring provisions contained in waste discharge requirements shall be in accordance with the Monitoring Procedures provided in Appendix III.
2. Where the Regional Board is satisfied that any substance(s) of Table B will not significantly occur in a discharger's effluent, the Regional Board may elect not to require monitoring for such substance(s), provided the discharger submits periodic certification that such substance(s) is not added to the waste* stream, and that no change has occurred in activities that could cause such substance(s) to be present in the waste* stream. Such election does not relieve the discharger from the requirement to meet the objectives of Table B.
3. The Regional Board may require monitoring of bioaccumulation of toxicants in the discharge zone. Organisms and techniques for such monitoring shall be chosen by the Regional Board on the basis of demonstrated value in waste* discharge monitoring.

H. Discharge Prohibitions

1. Hazardous Substances

- a. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste* into the ocean* is prohibited.

2. Areas Designated for Special Water Quality Protection

- a. Waste* shall not be discharged to designated Areas* of Special Biological Significance except as provided in Chapter III E. Implementation Provisions For Areas of Special Biological Significance.

3. Sludge

- a. Pipeline discharge of sludge to the ocean* is prohibited by federal law; the discharge of municipal and industrial waste* sludge directly to the ocean*, or into

* See Appendix I for definition of terms.

a waste* stream that discharges to the ocean*, is prohibited by this Plan. The discharge of sludge digester supernatant directly to the ocean*, or to a waste* stream that discharges to the ocean* without further treatment, is prohibited.

- b. It is the policy of the SWRCB that the treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment. Therefore, if federal law is amended to permit such discharge, which could affect California waters, the SWRCB may consider requests for exceptions to this section under Chapter III, H. of this Plan, provided further that an Environmental Impact Report on the proposed project shows clearly that any available alternative disposal method will have a greater adverse environmental impact than the proposed project.

4. By-Passing

- a. The by-passing of untreated wastes* containing concentrations of pollutants in excess of those of Table A or Table B to the ocean* is prohibited.

I. State Board Exceptions to Plan Requirements

- 1. The State Board may, in compliance with the California Environmental Quality Act, subsequent to a public hearing, and with the concurrence of the Environmental Protection Agency, grant exceptions where the Board determines:
 - a. The exception will not compromise protection of ocean* waters for beneficial uses, and,
 - b. The public interest will be served.

* See Appendix I for definition of terms.



California Regional Water Quality Control Board

Central Coast Region



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Arnold Schwarzenegger
Governor

November 24, 2004

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CALIFORNIA
COASTAL COMMISSION

Janet Hashimoto
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US EPA Region 9
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**ADOPTION OF WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2004-0129,
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT NO.
CA0048160 – GOLETA SANITARY DISTRICT WASTEWATER TREATMENT FACILITY,
SANTA BARBARA COUNTY, WDID 3 42 010 2001**

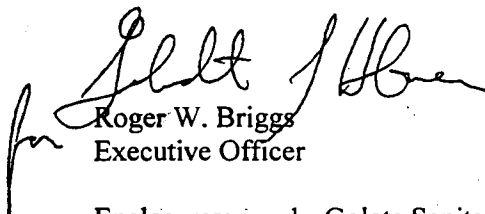
Dear Ms. Hashimoto:

Thank you for your cooperation on this matter, and for your participation in our November 19, 2004 joint public hearing. Please find attached for your consideration Waste Discharge Requirements Order No. R3-2004-0129, as adopted by the Regional Board on November 19, 2004.

Please see the signatory sections at the end of the Order and the Monitoring and Reporting Program.

If you have questions, please contact Todd Stanley at (805) 542-4769 or tstanley@waterboards.ca.gov, or Gerhardt Hubner at (805) 542-4647.

Sincerely,


for Roger W. Briggs
Executive Officer

- Enclosures:
1. Goleta Sanitary District WWTP Interested Parties List
 2. Waste Discharge Requirements Order No. R3-2004-0129
 3. Monitoring and Reporting Program No. R3-2004-0129

CC (with encl.): Goleta Sanitary District WWTP IPL (*Please file IPL copy with original letter*)

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Task: 102-01
File: Discharger; Goleta SD / Goleta SD WWTP

California Environmental Protection Agency



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EXHIBIT NO. 6
APPLICATION NO.

CC-13-02

RWQCB Decision

**U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, Ca 94105-3901
Permit No. CA0048160
NPDES Requirements**

**California Regional Water Quality Control Board
Central Coast Region (3)
895 Aerovista Place, Suite 101
San Luis Obispo, Ca 93401-7906
Order No. R3-2004-0129
Draft Waste Discharge Requirements**

**FOR
GOLETA SANITARY DISTRICT
WASTEWATER TREATMENT FACILITY,
SANTA BARBARA COUNTY**

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

SITE OWNER AND LOCATION

1. The Goleta Sanitary District (Permittee, or District) operates a wastewater collection, treatment, and disposal system (a Publicly Owned Treatment Works, or POTW) to provide sewerage service to Goleta Sanitary District, Goleta West Sanitary District, University of California at Santa Barbara, Santa Barbara Municipal Airport, and facilities of Santa Barbara County.
2. The District's Wastewater Treatment Facility (Facility) is on property owned by the District at 1 William Moffett Place, Goleta, CA, 93117, (T4N, R28W, Section 17, SB B&M) as shown on Attachment "A".

PURPOSE OF ORDER

3. This Order renews the Permittee's National Pollutant Discharge Elimination System (NPDES) permit. The Permittee applied for reissuance of its 301(h) modified NPDES permit on December 8, 2003, and requested to renew the following effluent limitations:

Effluent limitations

Wastewater constituent	Monthly (30-day) Average	Daily Maximum
Biochemical Oxygen Demand (mg/L)	98	150
Suspended Solids (mg/L)	63	100
pH	6.0 - 9.0	

4. Although NPDES permits issued to publicly owned treatment works generally require secondary treatment of wastewater (33 U.S.C. §1311(b)(1)(B)), Congress authorized waivers of secondary treatment requirements under Clean Water Act (CWA) Section 301(h) (33 U.S.C. §1311(h)). To qualify for a waiver, a discharge must satisfy the conditions of Section 301(h), and applicable regulations including, without limitation, Code of Federal Regulations, Title 40, Part 124, Subpart G. U.S. EPA and the Regional

Board jointly issued the District a 301(h) permit (No. CA0048160) U.S. EPA on July 26, 1996 (the "Permit"). On January 23, 2001, Goleta applied to U.S. EPA and the Regional Board for another 301(h) permit. The Regional Board considered the record in favor and against the Permit renewal. On July 12, 2002, the Regional Board adopted Resolution No. R3-2002-0077 denying CWA section 401 water quality certification (401 certification) and denying concurrence with the CWA Section 301(h)

variance (301(h) concurrence). The Resolution, as subsequently amended, required the District to submit a modified NPDES permit application to the Regional Board within 45 days after the State Water Resources Control Board (State Board) acted on the District's petition challenging Resolution R3-2002-0077. The petition was deemed denied by operation of law on January 22, 2003.

5. On December 8, 2003, the District submitted an application for an updated permit providing for a flow limit of 7.64 million gallons per day (MGD), Regional Board 301(h) concurrence, and a CWA Section 401 Water Quality Certification Application. On December 19, 2003, the District provided CEQA documentation for the 401 Certification. On December 30, 2003, the Regional Board denied 401 certification without prejudice. On January 28, 2004, the District requested the Regional Board to proceed with the processing of the application. On March 2, 2004, the District requested the Regional Board not to process the pending application and stated that if the District decided not to propose a conversion schedule by May 7, 2004, the District would ask the Regional Board to recommence its processing of the application. On May 7, 2004, the District stated that it had determined that it would be in the best interests of its constituents to propose an amendment to its pending application to convert to secondary treatment and to further explore how such an amendment might be structured. However, to the extent that no further litigation is anticipated pursuant to the terms of the Settlement Agreement and the Settlement Agreement provides for the upgrade to full secondary treatment standards, any requirement for the District to amend its application according to its May 7, 2004 letter was deemed by Regional Board staff to be unnecessary at this time.

6. On February 20, 2004, the District filed a Petition for Writ of Mandate in Santa Barbara County Superior Court (the "Petition"), and amended the petition on April 21, 2004. The Regional Board's Executive Officer and the District have signed a settlement agreement ("Settlement Agreement") dated November 10, 2004 that requires the District to upgrade the facility to full secondary treatment within ten years as long as the total suspended solids (TSS) and biological oxygen demand (BOD) limits remain the same as in the

Permittee's existing permit, provided that the conditions of the Settlement Agreement are satisfied. The Settlement Agreement also provides that the District will dismiss the pending litigation against the Regional and State Boards after the First 5-Year Permit (as defined in the Settlement Agreement) becomes effective and after any State Board petitions regarding the 301(h) waiver provisions are resolved in a manner upholding the 301(h) waiver described in the Settlement Agreement. Regional Board or State Board approval of this permit constitutes 401 certification and 301(h) concurrence.

FACILITY DESCRIPTION

7. **Facility operations and treatment capacity.** All wastewater flows up to 4.4 MGD flow through primary sedimentation basins and secondary treatment facilities, including biofiltration, solids-contact, and secondary clarification. Wastewater flows greater than 4.4 MGD receive primary treatment only, and are blended with the secondary-treated wastewater and disinfected by chlorination/dechlorination prior to ocean discharge. Sludge is anaerobically digested, stored in stabilization basins, air-dried, and used as a soil conditioner. Industrial wastewater is subject to waste pretreatment requirements. The facility has the following primary and secondary design capacities:

<u>Primary Treatment Waste Flow</u>	<u>MGD</u>
Average Dry Weather Flow	9.0
Peak Seasonal Dry Weather Flow	9.7
Peak Dry Weather Flow	17.0
Peak Wet Weather Flow	25.4
 <u>Secondary Treatment Waste Flow</u>	 <u>MGD</u>
Constant Flow	4.4

8. **Discharge type and disposal.** Treated municipal wastewater is discharged to the Pacific Ocean through an ocean outfall/diffuser system 5,912 feet long. The outfall terminates in the Santa Barbara Channel (34°24'06" N Latitude, 119°49'27" W Longitude) at an average depth of 87 feet. The outfall location is shown on Attachment "A". Critical (minimum) initial dilution for determining compliance with toxic materials objectives from Chapter II, Table B of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) is 122:1.

9. **Wastewater Reclamation.** The facility provides tertiary wastewater treatment by means of coagulation, flocculation, filtration, and additional disinfection processes. The additional treatment allows the Permittee to provide up to 3.3 MGD of reclaimed wastewater for landscape irrigation in the Goleta area and surrounding areas of Santa Barbara County, for incidental uses at the facility. Water Reclamation Requirements Order No. 91-03 governs the use of the reclaimed wastewater in accordance with the wastewater reclamation criteria specified in Title 22 of the California Code of Regulations.
10. **Changes to Order.** The Order includes the following:
- Updates to numeric effluent limits derived from Ocean Plan Table B in accordance with the December 2001 Ocean Plan. Effluent limits are based on Table B.
 - New and updated narrative requirements in accordance with the December 2001 Ocean Plan.
 - New requirements for wastewater collection system, described in Section D: *Wastewater Collection System Requirements*.
 - Modified requirements for Biosolids pursuant to standard NPDES permit language provided by EPA.
 - Findings regarding a ten-year upgrade to full secondary treatment.
11. **Changes to Monitoring and Reporting Program (MRP).** The Permittee is required to comply with MRP No. R3-2004-0129, which is part of this Order. The MRP includes updated analytical methods and reporting from the December 2001 Ocean Plan.
12. Oil naturally seeps from Pacific Ocean's seafloor in the vicinity of the discharge.
13. The Regional Board and EPA classify this discharge as a major discharge because it exceeds 1.0 MGD.
14. **Ocean Plan.** The State Water Resources Control Board (State Board) revised the Water Quality Control Plan, Ocean Waters of California (Ocean Plan) on December 3, 2001. It is updated periodically. The Ocean Plan contains water quality objectives and other requirements governing discharges to the Pacific Ocean.
15. **Basin Plan.** The Water Quality Control Plan, Central Coastal Basin (Basin Plan) was last revised and adopted by the Regional Board on September 8, 1994. It is updated periodically. The Basin Plan incorporates State Board plans and policies by reference and contains a strategy for protecting beneficial uses of the Pacific Ocean.
16. **Beneficial uses.** Existing and anticipated beneficial uses of the ocean waters in the vicinity of the discharge include:
- a. Industrial water supply;
 - b. Water contact and non-water contact recreation, including aesthetic enjoyment;
 - c. Navigation;
 - d. Commercial and sport fishing;
 - e. Mariculture;
 - f. Rare and endangered species;
 - g. Fish migration;
 - h. Fish spawning;
 - i. Marine Habitat, and;
 - j. Shellfish harvesting.
17. The shellfishing beneficial use (see Finding 16) exists wherever mussels, clams, or oysters may be harvested for human consumption. To the knowledge of this Regional Board: 1) habitat for mussels is very limited within one mile of the discharge point and exists only at shoreline areas greater than one mile from the discharge (e.g., Goleta Point); 2) clamming activity is insignificant within one mile of the discharge point, and; 3) mariculture lease sites for oyster harvesting are located approximately four miles downcoast (east) of the discharge point, within one mile of the shoreline.
18. The California Department of Health Services has established a prohibitive zone for commercial shellfish harvesting within a one-mile radius of the discharge point.
19. **Reopener.** This Order and Permit may be modified by the Regional Board and EPA to address changes in effluent quality and/or changes in receiving water quality within the prohibitive zone, attributed all, or in part, to the diversion of secondary-treated wastewater for the purpose of reclamation. Such modifications may include but are not limited to,

the implementation of appropriate conditions or limitations based on newly available information or new State water quality standards.

20. **Pretreatment program.** The Permittee submitted an industrial pretreatment program under 40 CFR 403. This program was approved by the EPA on July 19, 1983, and has been implemented. Forty-four technical local limits were adopted by the Permittee on May 1, 1992.
21. The requirements in this Order and Permit are based on the Ocean Plan, Basin Plan, other Federal and State plans and policies, current facility performance, and best engineering judgment.
22. **Facility upgrade.** As a condition of issuance of the proposed Order, the District has agreed to milestones for upgrading the facility to achieve the secondary treatment standards of 40 C.F.R. §133.102 within ten years. The settlement also provides for enhanced treatment if the effluent 30-day average mass emissions for TSS or BOD measured over the three-month period of June, July, and August of each year exceed eighty-five percent (85%) of the mass emissions limit set forth in the proposed Order. Additional findings are set forth below under FACILITY UPGRADE and REGIONAL BOARD FINDINGS REGARDING FACILITY UPGRADE. Based on the administrative record as a whole, including the enhanced treatment provisions and EPA's Tentative Decision Document (TDD) dated January 17, 2002, the Facility currently satisfies the requirements of CWA Section 301(h).
23. **CEQA.** The issuance of Waste Discharge Requirements and Section 401 water quality certification for this discharge is exempt from provisions of the California Environmental Quality Act (Division 13 of the Public Resources Code, commencing with Section 21000, et. seq.), in accordance with 14 California Code of Regulations Section 15301 (existing facilities). The issuance of NPDES permits is exempt from CEQA pursuant to California Water Code Section 13389.
24. **California Water Code Section 13263.6(a).** Evaluation of wastewater constituents determined no need exists to include effluent limitations in accordance with Section 13263.6(a).
25. **Ocean Plan Table B Effluent Limits.** The Ocean Plan specifies numeric water quality objectives for the constituents specified in the Effluent Monitoring Section of Monitoring and Reporting Program No. R3-2004-0129. Order Section B.5 specifies effluent limitations based on the Ocean Plan's water quality objectives.
26. **Anti-backsliding.** Effluent limitations included in Order No. R3-2004-0129 are equal to or more stringent than those in Order No. 96-21. Therefore, the proposed effluent limitations do not constitute backsliding in accordance with U.S.C. § 1342(O)(2)(b)(I).
27. **Anti-degradation.** Waste discharge requirements for this discharge must be in conformance with 40 CFR 131.12 and State Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (known collectively as "anti-degradation" policies). These policies are intended to maintain and protect the existing beneficial uses of receiving waters and the levels of water quality necessary to achieve those goals. The Regional Board has taken into consideration the requirements of the State and Federal anti-degradation policies in establishing the requirements contained herein, and EPA has taken into consideration the Requirements of the Federal anti-degradation policy, and have determined that any reduction in water quality as a result of this discharge will not result in any long-term deleterious effects on water quality or associated beneficial uses.
28. **Storm water.** Water Quality Order No. 97-03-DWQ (NPDES General Permit No. CAS000001) regulates the discharge of storm water from the facility.

WASTEWATER COLLECTION SYSTEM

29. The Permittee's sanitary sewer (wastewater collection) system collects wastewater using pipes, pumps, and/or other conveyance systems, and directs the raw sewage to the wastewater treatment facility. A "wastewater collection system overflow" is defined as a discharge to ground or surface water from the wastewater collection system at any point upstream of the wastewater treatment facility. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a wastewater collection system, and discharges to these facilities are not considered wastewater collection system overflows provided that

the waste is fully contained within these temporary storage/conveyance facilities.

30. Wastewater collection system overflows consist of varying mixtures of domestic sewage, industrial wastewater, and commercial wastewater, the mixture depending upon the pattern of land use in the wastewater collection system tributary to an overflow location. The chief causes of wastewater collection system overflows include, but are not limited to, line blockages due to grease, roots, or debris, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or ground water inflow/infiltration, lack of capacity, and contractor-related incidents.
31. Wastewater collection system overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Wastewater collection system overflows can pose a threat to public health, cause temporary exceedances of applicable water quality objectives, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.
32. The Permittee is expected to take all necessary steps to adequately operate and maintain its wastewater collection system to prevent overflows. This Order requires that the Permittee continue to implement and update its Collection System Maintenance and Renovation Program, and further requires the development of a Wastewater Collection System Management Plan (see Section D, *Wastewater Collection System Requirements*, of this Order, and Attachment 1 to the MRP).
33. This Order requires the Permittee to report wastewater collection system overflows in accordance with MRP No. R3-2004-0129, Section XII, *Wastewater Collection System Spill/Overflow Reporting*.
34. Goleta West Sanitary District, University of California at Santa Barbara, Santa Barbara Municipal Airport, and Santa Barbara County retain ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into interceptors owned and operated by the Permittee. These collections systems are subject to federal pretreatment requirements. It is incumbent upon these local wastewater collection

entities (as building permit authorities) to protect the environment to the greatest degree possible and ensure their local collection systems, as well as the receiving wastewater collection system, are protected and utilized properly. This responsibility includes preventing overflows, and may include restricting or prohibiting the volume, type, or concentration of wastes added to the system.

At the November 19, 2004 Regional Board meeting, staff intends to recommend the regulation of all appropriate tributary wastewater collection agencies under proposed *Waste Discharge Requirements Order No. R3-2004-0130 for Local Wastewater Collection Agencies Tributary to the Goleta Sanitary District Wastewater Treatment Facility, Santa Barbara County*.

GENERAL FINDINGS

35. An Order and the privilege to discharge waste into waters of the State is conditional upon the discharge complying with provisions of Division 7 of the California Water Code and of the Clean Water Act (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 nuisance. This Order shall serve as a NPDES permit pursuant to section 402 of the Clean Water Act. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.
36. Effective January 1, 2000, the Clean Water Enforcement and Pollution Prevention Act of 1999 (Act), amended California Water Code Section 13385. The Act requires the Regional Board to impose mandatory minimum penalties for certain violations. Failure to comply with NPDES Permit effluent limitations and certain other requirements and conditions contained in this Order may result in significant and mandatory enforcement action by the Regional Board. Overflows from wastewater collection systems (sanitary sewer overflows) are subject to discretionary administrative civil liability, but are not subject to mandatory minimum penalties. The Regional Board has concluded that report required by Order section D.6 is not a "discharge monitoring report" for purposes of Water Code section 13385.1(a)(1).

37. On September 8, 2000, the Governor of California approved AB2800, which added sections to the Public Resources Code that are relevant to Areas of Special Biological Significance. Effective January 1, 2003, Section 36700(f) of the Public Resources Code named Areas of Special Biological Significance (ASBS) as State Water Quality Protection Areas (SWQPA).

The Ocean Plan prohibits the discharge of waste to designated ASBS except as provided in the Ocean Plan, Chapter III, Section E, *Implementation Provisions for ASBS*. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas. ASBS are those areas designated by the State Water Resources Control Board (SWRCB) as requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. ASBS are designated by the SWRCB following the procedures provided in Appendix IV of the Ocean Plan. See Appendix V of the Ocean Plan for ASBS designated at the time of this Order's issuance, and subsequent revised listings established by the SWRCB for either ASBS or SWQPA.

The District does not discharge waste to ASBS, nor does staff have any information indicating that the discharge location is being considered for ASBS designation.

38. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Board within 30 days of the adoption date of this Order. Copies of the law and regulations applicable to filing petitions are available at <http://www.swrcb.ca.gov>, or will be provided upon request.
39. On October 6, 2004, the Regional Board and EPA notified the Permittee and interested persons of the intent to revise waste discharge requirements, provided them with a copy of the proposed Order and Permit and an opportunity to submit their written views and recommendations, and scheduled a public hearing.

40. In a public hearing on November 19, 2004, the Regional Board and EPA heard and considered all comments pertaining to the discharge.

FACILITY UPGRADE

41. The District has agreed to the following Conversion Schedule, subject to the conditions set forth in the Settlement Agreement, including the provisions regarding force majeure:

CONVERSION SCHEDULE

Tasks	Date of Completion*
A. Preliminary Activities:	
1. Submittal of Detailed Conversion Plan and Timeline to Owners of Capacity in District's Plant	1/01/05
2. Coordination of Conversion Concepts w/ Owners of Capacity in District's Plant (Education regarding participation in conversion)	6/30/05
3. Send Requests for Environmental and Consulting Engineering Proposals	12/31/05
4. Award of Environmental and Consulting Engineering Contracts	6/30/06
B. Facilities Planning:	
1. Complete Draft Facilities Plan	12/31/06
2. Complete Final Facilities Plan	6/30/08
C. Environmental Review and Permitting:	
1. Complete and Circulate Draft CEQA Document	6/30/08
2. Certify Final CEQA Document	1/31/09
3. Submit Applications for all Necessary Permits	1/31/09
4. Obtain all Necessary Permits	1/31/11
D. Financing:	
1. Complete Draft Plan for Project Design and Construction Financing	1/31/07
2. Complete Final Plan for Project Design and Construction Financing	3/31/08

Tasks	Date of Completion*
3. Submit Proof that all Necessary Construction Financing has been Secured, Including Compliance with Proposition 218	12/31/10
E. Design and Construction:	
1. Initiate Design	6/30/08
2. 30% Design	12/31/08
3. 60% Design	11/30/09
4. 90% Design	3/31/10
5. 100% Design	9/30/10
6. Issue Notice to Proceed to Contractor	4/30/11
7. Construction Progress Reports	Quarterly (with self-monitoring reports)
8. Complete Construction and Commence Debugging and Startup	4/30/14
9. Full Compliance w/ Secondary Requirements	11/1/14

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

42. The District has agreed to the following Enhanced Treatment requirements, subject to the conditions set forth in the Settlement Agreement:

- a. If, during the Conversion Period, the District's effluent monthly (30-day) average mass emissions for total suspended solids (TSS) or biochemical oxygen demand (BOD) measured over the three-month period of June, July, and August of each year exceed eighty-five percent (85%) of the mass emissions limit set forth in the District's current 301(h) Permit, the District will enhance its treatment process by the use of polymers or other available technologies of equal or lesser cost (taking into account capital, operations and maintenance costs) and equal or better effectiveness ("Enhanced Treatment") in an effort to reduce mass emissions to eighty-five percent (85%) of the Permit limit.
- b. Mass emissions for TSS and BOD will be re-evaluated in June of each year following the commencement of Enhanced Treatment to determine if emissions continue to exceed the Enhanced Treatment trigger of eighty-five percent (85%) without Enhanced Treatment. If

the monthly (30-day) average mass emissions for TSS or BOD in June exceed ninety (90%), Enhanced Treatment will continue until tested again in June of the following year. If the monthly (30-day) average mass emissions for TSS or BOD in June are greater than eighty-five percent (85%) but less than ninety (90%), testing will continue through July and August to determine whether the three month monthly (30-day) average mass emissions for TSS or BOD exceed eighty-five percent (85%) of the Permit limit. If the monthly (30-day) average mass emissions for TSS or BOD for the three-month period of June, July, and August do not exceed the eighty-five percent (85%) Enhanced Treatment trigger, Enhanced Treatment may be discontinued until the Enhanced Treatment trigger is exceeded again in the future, as determined by subsequent three-month results during June, July, and August.

- c. If the use of Enhanced Treatment fails to achieve mass emissions at or below the Enhanced Treatment triggers for any six (6) consecutive monthly periods, the District shall investigate and apply, with the approval of the Regional Board's Executive Officer, other technologies of equal or lesser cost (taking into account capital, operations and maintenance costs) and equal or better effectiveness if any such technologies are readily available and are capable of achieving at least eighty-five percent (85%) of the permitted mass emissions limits.
- d. The Settlement Agreement provides that the Enhanced Treatment triggers set forth above are not effluent limitations, and, if exceeded, will not be considered a violation of the District's NPDES permit, waste discharge requirements or water quality certification and will not subject the District to civil liabilities, fines, penalties or other enforcement action. If the District exceeds an Enhanced Treatment trigger and is therefore required to commence or continue Enhanced Treatment, the District will not be considered to have committed a violation of the District's NPDES permit, waste discharge requirements, or water quality certification, and will not be subject to civil liabilities, fines, penalties, or other enforcement action if Enhanced Treatment fails to bring effluent mass emissions for TSS or BOD, as measured above, below eighty-five percent (85%) of the mass

emissions limit set forth in the District's current 301(h) permit.

43. The requirements in Findings 41 and 42 are enforceable as set forth in the Settlement Agreement. The Regional Board and EPA have considered these provisions in adopting this Order, but the requirements set forth in Findings 41 and 42 are not terms of the Permit.

REGIONAL BOARD FINDINGS REGARDING FACILITY UPGRADE

44. The following findings are findings of the Regional Board pursuant to the Settlement Agreement. The capitalized terms in Findings 45-47 are defined in the Settlement Agreement.
45. Subject to the provisions of the Settlement Agreement regarding Regional Board Discretion and New Evidence, the Settlement Agreement contemplates that the Regional 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.

46. Based on the administrative record, including population growth projections through 2014, known environmental and cumulative impacts of the District's existing wastewater treatment facilities, and evidence submitted by the District of the time needed for upgrading the plant, the Conversion Schedule is appropriate.
47. At the end of the Conversion Period, once the District has converted to secondary treatment of effluent from the Plant, the Regional 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 Board determines are necessary to comply with State or Federal law.

IT IS HEREBY ORDERED, pursuant to authority in Sections 13263, 13383, 13377, and 13523 of the California Water Code, and applicable provisions of the federal Clean Water Act and amendments, that the Goleta Sanitary District, its agents, successors, and assigns, may discharge waste from the Goleta Wastewater Treatment Facility to the Pacific Ocean providing they comply with the following:

All technical and monitoring reports submitted pursuant to this Order are required pursuant to Sections 13267 and 13383 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Permittee to enforcement action pursuant to Sections 13268 and 13385 of the California Water Code.

(NOTE: General permit conditions, definitions and the methods of determining compliance are contained in the attached *Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits*, dated January 1985. Paragraph H.4 of this Order refers to applicable sections. Definitions are also contained in the Ocean Plan.

Requirements in this Order are provided with the following superscripts to indicate their origin:

- ^A Title 40, Code of Federal Regulations, Section 122

- ^B California Ocean Plan
^C Central Coast Water Quality Control Plan (Basin Plan)
^D California Code of Regulations, Title 17, Sections 7957 and 7958

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location other than 34°24'06" N Latitude, 119°49'27" W Longitude is prohibited.

B. EFFLUENT LIMITATIONS

1. Effluent daily dry-weather flow shall not exceed a monthly average of 7.64 MGD.
2. The Permittee shall, as a 30-day average, remove at least 30% of the biochemical oxygen demanding materials (BOD₅) from the influent stream before discharging wastewater to the ocean. The Permittee shall, as a 30-day average, remove at least 75% of the suspended solids (total non-

filtrable residue) 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:

Constituent	Units	Monthly (30-day) Average	Maximum at any time
BOD ₅ (20°C)	mg/L	98	150
	lbs/day ¹	6,240	9,560
Suspended Solids	mg/L	63	100
	lbs/day ¹	4,010	6,370

3. The Ocean Plan states that waste discharge requirements shall also specify effluent limitations in terms of mass emission rate limits utilizing the general formula:

$$\text{lbs/day} = 0.00834 \times C_e \times Q$$

where:

C_e = the effluent concentration limit, in $\mu\text{g/L}$, and;

Q = the flow rate observed over the concentration limit's period (e.g., daily, weekly, monthly/30-day, 6-month), in millions of gallons per day (MGD)

[Note: If C_e expressed in units of mg/L; use a conversion factor of 8.34 instead of 0.00834.]

This formula applies to Five-Day Biochemical Oxygen-Demand (BOD₅) and Total Suspended

Solids (TSS) (Effluent Limitation No. B.2), Oil & Grease (Table A), and to Table B constituents.

4. For average daily dry weather flows equal to or less than 7.64 MGD, the effluent mass emission rate shall not exceed the "Maximum Allowable Mass Emission Rate." The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formula in Effluent Limitation B.3 using the effluent concentration limit specified in this permit for the period and the average of measured daily flows (up to the allowable flow) over the period (see Standard Provisions G.11 - 13).
5. Effluent concentrations shall not exceed the limitations specified in Tables A and B of this Order^B.

a. TABLE A - MAJOR WASTEWATER CONSTITUENTS AND PROPERTIES

Constituent	Units	Monthly (30-day) Average	Weekly (7-day) Average	Maximum at any time
Grease and Oil	mg/L	25	40	75
	lbs/day ¹	1,590	2,550	4,780
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	pH units	Within limits of 6.0 to 9.0 at all times		

b. TABLE B - EFFLUENT LIMITS FOR THE PROTECTION OF MARINE AQUATIC LIFE²

Constituent	Units of Measurement	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	mg/L	0.62	3.6	9.5
Cadmium	mg/L	0.12	0.49	1.2
Chromium (Hex) ³	mg/L	0.25	0.98	2.5

b. TABLE B – EFFLUENT LIMITS FOR THE PROTECTION OF MARINE AQUATIC LIFE ²

Constituent	Units of Measurement	6-Month Median	Daily Maximum	Instantaneous Maximum
Copper	mg/L	0.12	1.2	3.4
Lead	mg/L	0.25	0.98	2.5
Mercury	µg/L	4.9	20	49
Nickel	mg/L	0.62	2.5	6.2
Selenium	mg/L	1.8	7.4	18
Silver	µg/L	67	320	840
Zinc	mg/L	1.5	8.9	24
Cyanide	mg/L	0.12	0.49	1.2
Total Chlorine Residual	mg/L	0.25	0.98	7.4
Ammonia (as N)	mg/L	74	300	740
Acute toxicity	TUa	N/A	4.0	N/A
Chronic Toxicity	TUc	N/A	123	N/A
Phenolic Compounds (non-chlorinated)	mg/L	3.7	15	37
Chlorinated Phenolics	mg/L	0.12	0.49	1.2
Endosulfan ⁴	µg/L	1.1	2.2	3.3
Endrin	µg/L	0.25	0.49	0.74
HCH ⁵	µg/L	0.49	0.98	1.5
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.			

PROTECTION OF HUMAN HEALTH - NON-CARCINOGENS ²

Constituent	Units	30-day average
Acrolein	mg/L	27
Antimony	mg/L	150
bis(2-chloroethoxy) methane	mg/L	0.54
bis(2-chloroisopropyl) ether	mg/L	150
Chlorobenzene	mg/L	70
chromium (III)	g/L	23
di-n-butyl phthalate	mg/L	430
Dichlorobenzenes	mg/L	630
diethyl phthalate	g/L	4.1
dimethyl phthalate	g/L	100
4,6-dinitro-2-methylphenol	mg/L	27
2,4-dinitrophenol	mg/L	0.49
Ethylbenzene	mg/L	500
Fluoranthene	mg/L	1.8
Hexachlorocyclopentadiene	mg/L	7.1
Nitrobenzene	mg/L	0.60
Thallium	mg/L	0.25

PROTECTION OF HUMAN HEALTH - NON-CARCINOGENS ²

Toluene	g/L	10
Tributyltin	µg/L	0.17
1,1,1-trichloroethane	g/L	66

PROTECTION OF HUMAN HEALTH - CARCINOGENS ²

Acrylonitrile	µg/L	12
Aldrin	µg/L	0.0027
Benzene	µg/L	730
Benzidine	µg/L	0.0085
beryllium	µg/L	4.1
bis(2-chloroethyl) ether	µg/L	5.5
bis(2-ethylhexyl) phthalate	µg/L	430
carbon tetrachloride	µg/L	110
Chlordane ⁶	µg/L	0.0028
chlorodibromomethane	mg/L	1.1
chloroform	mg/L	16
DDT ⁷	µg/L	0.021
1,4-dichlorobenzene	mg/L	2.2
3,3'-dichlorobenzidine	µg/L	1.0
1,2-dichloroethane	mg/L	3.4
1,1-dichloroethylene	µg/L	110
dichlorobromomethane	µg/L	760
dichloromethane	mg/L	55
1,3-dichloropropene	mg/L	1.1
dieldrin	µg/L	0.0049
2,4-dinitrotoluene	µg/L	320
1,2-diphenylhydrazine	µg/L	20
halomethanes	mg/L	16
Heptachlor ⁸	µg/L	0.0062
Heptachlor epoxide	µg/L	0.0025
hexachlorobenzene	µg/L	0.026
hexachlorobutadiene	mg/L	1.7
hexachloroethane	µg/L	310
Isophorone	mg/L	90
N-nitrosodimethylamine	µg/L	900
N-nitrosodi-N-propylamine	µg/L	47
N-nitrosodiphenylamine	µg/L	310
PAHs ⁹	µg/L	1.1
PCBs ¹⁰	µg/L	0.0023
TCDD equivalents ¹¹	pg/L	0.48
1,1,2,2-tetrachloroethane	µg/L	280
tetrachloroethylene	µg/L	250
toxaphene	µg/L	0.026
trichloroethylene	mg/L	3.3
1,1,2-trichloroethane	mg/L	1.2
2,4,6-trichlorophenol	µg/L	36
vinyl chloride	mg/L	4.4

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- c. 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 (see MRP Section II, *Effluent Monitoring*). The District shall implement the *Notification and Monitoring Procedures in the Event of Disinfection Failure*, as specified in Monitoring and Reporting Section IV.E.
 - d. If the density of Total Coliform organisms exceeds any of the limits specified in Item 5.c., above, for three consecutive months, the Permittee 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 Permittee shall submit the report within 30 days of the end of the third month of violating the limitation. In addition, the Permittee shall monitor the surf-zone stations daily for one week following the last day on which violation of the effluent limitation occurred.
 - e. 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.
 - f. The Permittee 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: ^B
- 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.

FOOTNOTES (Effluent Limitations)

- [1] Mass emissions rate limitations are based on the annual monthly average design flow of 7.64 MGD
- [2] 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.
- [3] Permittees may at their option meet this limitation as total chromium limitation.
- [4] ENDOSULFAN shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
- [5] HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
- [6] CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
- [7] 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.
- [8] HEPTACHLOR formerly meant the sum of heptachlor and heptachlor epoxide. Each specie is now listed separately.
- [9] 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.

- [10] 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.
- [11] 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

C. RECEIVING WATER LIMITATIONS ^{B, D}

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order and Permit considers these factors and is designed to minimize the influence of the discharge to the receiving water. The discharge shall not cause the exceedance of the receiving water limitations of this section.

At the time of this Order's consideration for adoption, the State Board proposed revisions to the Ocean Plan which may significantly affect Sections C.1 and C.2 below, and MRP Section IV. The Executive Officer will formally notify the Permittee of the applicability of any such Ocean Plan changes. The Regional Board may defer the formal revision of this Order and MRP until the next scheduled renewal if permitted by the Ocean Plan, or may reopen the Order to amend it to comply with the Ocean Plan revisions.

- The discharge shall not cause following bacterial objectives to be exceeded throughout the water column 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 used for water contact sports, as determined by the Regional Board, but including all kelp beds:

Parameter Applicable	Total Coliform Organisms (# / 100 mL)	Fecal Coliform Organisms (# / 100 mL)
Log Mean (30-day period)	--	200
90% of samples (60-day period)	--	400
80% of samples (60-day period)	1,000	--
Maximum*	10,000	--

* Verified by a repeat sample taken within 48 hours.

If the ratio of fecal to total coliform in a single sample exceeds 0.1, the density of total coliform organisms shall not exceed 1,000 per 100 mL. ^D

- The discharge shall not cause the enterococcus density, based on a single sample, to exceed 104 per 100 mL, nor for the geometric mean, based on a minimum of at least five samples from a single sampling station for any 30-day period, to exceed 35 per 100 mL. ^D

- 3 The discharge shall not cause the following bacterial limits to be exceeded in the water column at all areas where shellfish may be harvested for human consumption, as determined by the Regional Board:

Parameter Applicable to any 30-day period	Total Coliform Organisms (# / 100 mL)
Median	70
90% of samples	230

4. Measurement of enterococcus density shall be conducted at all stations where measurement of total and fecal coliforms is required. If Receiving Water Limitations C.1 or C.2 is consistently exceeded, or the following enterococcus densities are exceeded, the Permittee shall conduct or participate in a bacterial assessment (sanitary survey) approved by the Executive Officer to identify the source(s) of bacteria:

Parameter Applicable	Enterococcus Organisms (# / 100 mL)
Geometric Mean (30-day)*	24
Geometric Mean (6-month)*	12

- * The geometric mean shall be a moving average based on no less than five (5) samples per month, spaced evenly over the time interval.

When a sanitary survey identifies a controllable source of indicator organisms associated with a discharge of sewage, the Permittee shall take action to control the source. The Permittee shall conduct sanitary surveys when so directed by the Regional Board or the Executive Officer.

5. Floating particles and grease and oil shall not be visible on the ocean surface.
6. The discharge of "waste" shall not cause aesthetically undesirable discoloration of the ocean surface.
7. "Natural light" shall not be "significantly" reduced at any point outside the "zone of initial dilution" as the result of the discharge of "waste".
8. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
9. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally^B, or fall below 5.0 mg/L^C, as the result of the discharge of oxygen demanding "waste" materials. The mean annual dissolved oxygen concentration shall not be less than 7.0 mg/L^C.
10. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally, and shall be within the range of 7.0 to 8.5 at all times.
11. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
12. In marine sediments, the concentration of toxic materials listed in the Ocean Plan, Chapter IV, Table B, shall not be increased above levels which would degrade indigenous biota.
13. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.
14. Nutrient materials shall not cause objectionable aquatic growth or "degrade" indigenous biota.
15. Marine communities, including vertebrate, invertebrate, and plant species, shall not be "degraded."

16. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.
17. The natural taste, odor, and color of fish, "shellfish," or other marine resources used for human consumption shall not be altered.
18. Discharge of radioactive "waste" shall not "degrade" marine life.
19. The temperature of the receiving water shall not be altered to adversely affect beneficial uses.
20. The discharge shall not cause deposition of sewage, sludge, grease, or other physical evidence of sewage discharge on beaches, rocks, or shorelines, and material of sewage origin shall not be visible in the water.
21. The discharge shall not cause a violation of any applicable water quality objective or standard for receiving waters adopted by the Regional Board or the State Board, as required by the Clean Water Act and regulations adopted thereunder. If more stringent water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Regional Board and EPA may revise and modify this Order and Permit in accordance with such more stringent standards.

D. WASTEWATER COLLECTION SYSTEM REQUIREMENTS

Wastewater Collection System Management Plan Development and Implementation

1. The Permittee shall develop and implement a Wastewater Collection System Management Plan (Management Plan) in accordance with the time schedule established in Section XI of Attachment 1 to MRP No. R3-2004-0129. The Management Plan shall be available to any member of the public upon written request.
2. The Permittee shall provide the Goleta West Sanitary District, University of California at Santa Barbara, Santa Barbara Municipal Airport, and Santa Barbara County with a copy of the Management Plan annual report required by this Order.

3. The essential elements of the Management Plan are outlined in Attachment 1 of MRP No. R3-2004-0129. All elements of the Management Plan outlined in MRP Attachment 1 shall be clearly labeled and addressed by the Permittee. If any element of MRP Attachment 1 is not appropriate or applicable to a Permittee's Management Plan, then the Plan shall provide the rationale for not including the element.
4. To facilitate continuity between the Permittee's existing wastewater collection system programs and the development and implementation of the Management Plan, the Plan shall incorporate within the appropriate Plan sections, but not be limited to, the Permittee's existing wastewater collection system programs, and the *Wastewater Collection System Overflow Prevention and Response* and *Infiltration/Inflow and Spill Prevention* requirements below.

Wastewater Collection System Overflow Prevention and Response

5. The Permittee shall coordinate with the appropriate local wastewater collection system entities on all relevant matters concerning the wastewater collection systems, pretreatment programs, and the wastewater treatment facility.
6. The Permittee shall minimize the discharge of chlorine, or any other toxic substance used for disinfection and cleanup of sewage overflows, to any surface water body. The Permittee shall take all reasonable steps to contain and prevent chlorine discharges to surface waters and minimize or correct any adverse impact on the environment resulting from the cleanup of overflows. The Permittee shall develop a monitoring program to evaluate the effectiveness of overflow cleanup protocols for protecting public health and the environment. Minimum protocols should include visual observation, sample collection, and sampling data analyses. The monitoring program shall be developed in coordination with the Regional Board and the Santa Barbara County Health Department, as appropriate. The Permittee shall submit a proposed monitoring program for Executive Officer review and approval **by April 1, 2005**.
7. The Permittee shall make every reasonable effort to prevent sewage overflows from its wastewater

collection system and private systems from entering storm drains and/or surface water bodies. The Permittee shall also make every reasonable effort to prevent sewage and/or chlorine used for disinfection of overflows from discharging from storm drains into flood control channels and open ditches by blocking the storm drainage system and by removing the sewage and/or chlorine from the storm drains.

8. Upon reduction, loss, or failure of the wastewater collection system resulting in a sewage overflow, the Permittee shall, to the extent necessary to maintain compliance with this Order, take any necessary remedial action to:

- a. control or limit the volume of sewage discharged;
- b. terminate the sewage discharge as rapidly as possible, and;
- c. recover as much of the sewage discharged as possible for proper disposal, including any wash-down water.

The Permittee shall implement all remedial actions to the extent they may be applicable to the discharge, including the following:

- d. Interception and rerouting of sewage flows around the sewage line failure;
 - e. Vacuum truck recovery of wastewater collection system overflows and wash down water;
 - f. Cleanup of debris of sewage origin at the overflow site;
 - g. Sample affected receiving water body to ensure adequate clean-up, and;
 - h. Submit monitoring data to the Executive Officer within 30 days of sampling.
9. The discharge of untreated or partially treated sewage is prohibited pursuant to Standard Provisions, Prohibition A.4, and shall constitute a violation of these discharge requirements unless the Permittee demonstrates through properly signed, contemporaneous operating logs, or other

relevant evidence that the following criteria are met:

- a. The discharge was caused by one or more severe natural conditions, including hurricanes, tornadoes, widespread flooding, earthquakes, tsunamis, and other similar natural conditions, and;
- b. There were no feasible alternatives to the discharge, such as the use of auxiliary treatment facilities, retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, or an increase in the capacity of the system. This provision is not satisfied if, in the exercise of reasonable engineering judgment, the Permittee should have installed auxiliary or additional collection system components, wastewater retention or treatment facilities, or adequate back-up equipment, or should have reduced inflow and infiltration.

10. In any enforcement action, the Regional Board will consider the efforts of the Permittee to contain, control, and clean up sewage overflows from its collection system as part of the Board's consideration of the factors required by Section 13385 of the California Water Code.

Infiltration/Inflow and Spill Prevention Measures

11. The Permittee shall continue to develop and implement infiltration, inflow, and spill prevention efforts to address problems associated with infiltration (e.g., groundwater entering into the collection system through defective pipe joints or connections to manholes), inflow (e.g., storm water entering manhole covers) and sewage spills (often caused by grease or root blockages). These activities shall be reviewed and updated as necessary by **September 1st of every year**, and shall be incorporated into the Wastewater Collection System Management Plan as required by this Order, and as outlined in Attachment 1 to MRP No. R3-2004-0129. [See Sections IV.(E) and IX.(A) of MRP Attachment 1 for Infiltration/Inflow related requirements.]
12. Infiltration, inflow, and spill prevention measures shall be developed in accordance with good engineering practices and shall address the following objectives:

- a. Identify infiltration and inflow sources that may affect treatment facility operation or possibly result in overflow or exceed pump station capacity; and,
- b. Identify, assign, and implement spill prevention measures and collection system management practices to ensure overflows and the contribution of pollutants (including illicit contributions) or "incompatible wastes" to the Permittee's treatment system are minimized.

E. PRETREATMENT REQUIREMENTS.

1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions. Where 40 CFR 403 places mandatory actions upon the Permittee as Control Authority but does not specify a timetable for completion of the actions, the Permittee shall complete the required actions within six (6) months from the issuance date of this Order and Permit or the effective date of the 40 CFR 403 revision, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board or EPA, as provided in the CWA, as amended (33 U.S.C. 1251 *et seq.*). The Permittee shall implement and enforce its Approved POTW Pretreatment Program.
2. The Permittee's Approved POTW Pretreatment Program is hereby made an enforceable condition of this Order and Permit. The Regional Board or EPA may initiate enforcement action against an industrial user (IU) for noncompliance with applicable standards and requirements as provided in the CWA.
3. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d), and 402(b) of the CWA with timely, appropriate, and effective enforcement actions. The Permittee shall cause all industrial 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 industrial user, upon commencement of the discharge.

4. The Permittee shall perform the pretreatment functions as required in 40 CFR 403 including, but not limited to:

- a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
- b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
- c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
- d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

5. The Permittee shall comply with the urban area pretreatment program requirements under CWA Section 301(h) and the implementing requirements at 40 CFR 125. The Permittee's actions to comply shall include the following:

- a. During each calendar year, maintain a rate of significant noncompliance (SNC), as defined at 40 CFR 403.8(f)(2)(vii), for significant industrial users (SIUs) of no more than 15 percent of the total number of SIUs.

The 15 percent noncompliance criteria includes only SIUs that are in SNC and which have not received at least a second-level formal enforcement action from the Permittee, in accordance with the Enforcement Response Plan included in Appendix K-2 of the Permittee's April 1995 301(h) variance application. The second level of enforcement is an Administrative Notice and Order.

- b. Provide the annual analysis regarding local limits required under 40 CFR 125.65(c)(1)(iii). As a consequence of any new local limits, some SIUs may need time to come into compliance with those limits. In any such cases, the Permittee shall issue a Compliance Finding of Violation and Order, which is the first level of formal enforcement in its Enforcement Response Plan. The Order shall contain a schedule for achieving compliance with the new local limits. SIUs receiving such Orders will not be included in the 15 percent noncompliance criteria.

F. BIOSOLIDS REQUIREMENTS

(Note: Language in this section was provided by EPA as standard language for use in NPDES permits. "Biosolids" refers to non-hazardous sewage sludge as defined in 40 CFR 503.9. Sewage sludge that is hazardous as defined in 40 CFR 261 must be disposed in accordance with the Resource Conservation and Recovery Act (RCRA). Sludge with PCB levels greater than 50 mg/kg must be disposed in accordance with 40 CFR 761.)

1. Management of all solids and sludge must comply with all requirements of CFR Parts 257, 258, 501, and 503, including all monitoring, record-keeping, and reporting requirements. Since the State of California, hence the Regional and State Boards, has not been delegated the authority by the EPA to implement the biosolids program, enforcement of biosolids requirements of CFR Part 503 will occur under EPA's jurisdiction at this time.
2. All biosolids generated by the permittee shall be used or disposed of in compliance with the applicable portions of:
 - a. 40 CFR 503: for biosolids which are land applied (placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation), placed in surface disposal sites (placed on the land at dedicated land disposal sites or monofills for the purpose of disposal), stored, or incinerated;
 - b. 40 CFR 258: for biosolids disposed in municipal solid waste landfills; and,
 - c. 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) applies to biosolids applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.

The Permittee is responsible for ensuring that all biosolids produced at its facility are used or disposed of in compliance with these regulations, whether the Permittee uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal. The

Permittee is responsible for informing subsequent preparers, applicers, and disposers of the requirements that they must meet under 40 CFR 257, 258, and 503.

3. Duty to mitigate: The Permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal in violation of applicable regulations and/or which has a likelihood of adversely affecting human health or the environment.
4. No biosolids shall be allowed to enter wetlands or other waters of the United States.
5. Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.
6. Biosolids treatment, storage, use, or disposal shall not create a nuisance such as objectionable odors or flies.
7. The Permittee shall assure that haulers transporting biosolids off site for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained.
8. If biosolids are stored for over two years from the time they are generated, the Permittee must ensure compliance with all the requirements for surface disposal under 40 CFR 503 Subpart C, or must submit a written notification to EPA with the information in Section 503.20(b), demonstrating the need for longer temporary storage.
9. 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 at the site to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and from the highest tidal stage that may occur.
10. The discharge of biosolids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the State.
11. The Permittee shall design its pretreatment program local discharge limitations to achieve the

metals concentration limits in 40 CFR 503.13 Table 3.

12. Inspection and Entry: The EPA, Regional Board, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Permittee, directly or through contractual arrangements with their biosolids management contractors, to:
 - a. Enter upon all premises where biosolids produced by the Permittee are treated, stored, used, or disposed, either by the Permittee or by another party to whom the Permittee transfers the biosolids for treatment, storage, use, or disposal;
 - b. Have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR 503, by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal, and;
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the biosolids treatment, storage, use, or disposal by the Permittee or by another party to whom the Permittee transfers the biosolids for treatment, storage, use, or disposal.
13. Monitoring shall be conducted in accordance with the Monitoring and Reporting Program (MRP) of this Order (see MRP Section III, *Biosolids Monitoring, Reporting, and Notification*):
14. All the requirements of 40 CFR 503 and 23 CCR 15 are enforceable by the EPA and this Regional Board whether or not the requirements are stated in an NPDES permit or any other permit issued to the Permittee.

G. PROVISIONS

1. This Order shall serve as a NPDES permit pursuant to section 402 of the CWA or amendments thereto, and as Waste Discharge Requirements pursuant to the California Water Code. This Order and Permit shall first be adopted by the Regional Board and then signed by the Regional Administrator. This Order shall become effective upon the date of adoption by the Regional

Board. This Permit shall become effective 33 days after the date of signature by the Regional Administrator.

2. The requirements of this Order supersede requirements prescribed by Order No. 96-21, adopted by the Regional Board on July 26, 1996. Order No. 96-21 is hereby rescinded, except as follows. The rescission of Order No. 96-21 will not take effect as to the tributary collection system entities, which are named as permittees under the permit, until the Regional Board has adopted new waste discharge requirements for the tributary systems.
3. The Permittee shall comply with the attached Monitoring and Reporting Program (MRP) No. R3-2004-0129, as ordered by the Executive Officer and the Regional Administrator. The Executive Officer may revise the MRP if the proposed revisions do not effectively relax the requirements. Proposed revisions which may effectively relax MRP requirements shall be enacted through the authorization of the Regional Board and the Regional Administrator.
4. The Permittee shall comply with all items of the attached *Standard Provisions and Reporting Requirements for the National Pollutant Discharge Elimination System*, dated January 1985, except Item C.18. Oral and written reports required by Item C.4 that pertain to disinfection shall also be made available to active local mariculture growers, as identified by the California Department of Health Services.

Paragraph (a) of item E.1 shall apply only if the bypass is for essential maintenance to assure efficient operation.

5. This Order and Permit expire five (5) years from its effective date (see Provision G.1), and the Permittee must file a report of waste discharge with the Regional Board and EPA, in accordance with Title 22 of the California Administrative Code, no later than six (6) months in advance of such date, as application for issuance of waste discharge requirements and NPDES permit.
6. A copy of this Order and Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

7. In the event of any change in name, ownership, or control of these waste disposal facilities, the Permittee shall notify the succeeding owner or operator of the existence of this Order and Permit by letter, a copy of which shall be forwarded to the Executive Officer and the Regional Administrator.
8. These requirements do not exempt the operator of this facility from compliance with any other laws, regulations, and ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
9. The Permittee shall submit annually to EPA all influent, effluent, and receiving water monitoring data for inclusion in the STORET database. The data shall be submitted in an electronic format specified by EPA.
10. This Order and 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.
11. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community^B.
12. Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment^B.
13. Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing and water-contact sports areas to

maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used^B.

14. The State Board is authorized to administer and enforce effluent limitations established pursuant to the Federal Clean Water Act. Effluent limitations established under Sections 301, 302, 306, 307, 316, 403, and 405 of the aforementioned Federal Act and administrative procedures pertaining thereto are included in the Ocean Plan by reference. Compliance with Ocean Plan Table A effluent limitations, or Environmental Protection Agency Effluent Limitations Guidelines for industrial discharges, based on Best Practicable Control Technology, shall be the minimum level of treatment acceptable under the Ocean Plan, and shall define reasonable treatment and waste control technology^B.
15. The Permittee must submit to the Regional Board and EPA a Toxicity Reduction Evaluation (TRE) workplan (or any appropriate updates to the existing plan) within 60 days of Order and Permit issuance.

Where toxicity monitoring shows a violation of the toxicity limitations identified in Effluent Limitation B.5 of this Order, the Permittee shall be considered in violation of this Order and shall increase the frequency of toxicity testing to once per week and submit the data within 15 days of the conclusion of the weekly test to the Regional Board Office. The Executive Officer will determine whether enforcement action will be initiated or whether the Permittee will be required to implement the TRE requirements and existing workplan.

The basis of the TRE shall be EPA's *Methods for Aquatic Toxicity Identification Evaluations: Phase I, Toxicity Characterization Procedures*, 2nd Edition, 1991b (EPA 600-6-91-003), *Methods for Aquatic Toxicity Identification Evaluations: Phase II, Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity*, 1993a (EPA 600-R-92-080), *Methods for Aquatic Toxicity Identification Evaluations: Phase III, Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity*, 1993b

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(EPA 600-R-92-081), and *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833-B-99-002, August 1999, or revised editions.

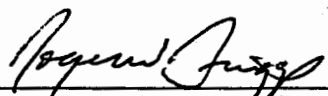
The Permittee shall implement a TRE as outlined below.

TOXICITY REDUCTION EVALUATION

Upon identifying noncompliance, in accordance with the reporting requirement noted above, the Permittee shall initiate a TRE according to the following schedule:

<u>TASK</u>	<u>DEADLINE</u>
1. Take all reasonable measures necessary to immediately reduce toxicity, where source is known;	Within 24 hours of the identification of noncompliance
2. Initiate the TRE;	Within 7 days of the noncompliance
3. Initiate a Toxicity Identification Evaluation (TIE);	See MRP Endnote [18]C.2
4. Report TIE findings and other preliminary actions taken per MRP Endnote [18]D;	Within 15 days of completion
5. Conduct the TRE following the procedures in the plan;	One year period or as specified in the plan
6. Submit results of the TRE to Regional Board and USEPA; include summary of findings, corrective action required, and data generated;	Within 60 days of completion of the TRE
7. Complete TRE implementation to meet permit limits and conditions;	To be determined by the EO
8. Return to regular monitoring upon final implementation of controls and approval of the EO.	To be determined by the EO

This certifies that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on **November 19, 2004**, and of an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on _____.



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

Alexis Strauss, Acting Director
Water Management Division
U.S. Environmental Protection Agency, Region IX
For the Regional Administrator

