

## CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

VOICE AND TDD (415) 904-5200

STAFF REPORT AND RECOMMENDATIONON CONSISTENCY CERTIFICATION

W14a



## Consistency Certification

No. CC-126-96

Staff:

LJS-SF

Date Filed:

10/8/96

3 Month Period Ends:

1/8/97

6 Month Period Ends:

4/8/97

Commission Meeting:

1/8/97

APPLICANT:

Goleta Sanitary District

DEVELOPMENT  
LOCATION:

Goleta Sanitary District Wastewater Treatment Plant, Santa Barbara County, and offshore waters (Exhibits 1 and 2)

DEVELOPMENT  
DESCRIPTION:

Reissuance of Secondary Treatment Waiver

FEDERAL AGENCY  
AND PERMIT:

EPA Reissuance, under Section 301(h) of the Clean Water Act, of a modified National Pollutant Discharge and Elimination System (NPDES) Permit for Waste Discharge Requirements for the Goleta Sanitary District Wastewater Treatment Facility

SUBSTANTIVE FILE  
DOCUMENTS:

1. RWQCB Order No. 96-21 and Order No. 85-69
2. NPDES Permit No. CA0048160
3. State Water Board Order No. WQ 96-3

EXECUTIVE SUMMARY

As enacted in 1972, the Clean Water Act required secondary treatment for all wastewater treatment nationwide. However, Section 301(h) (sometimes referred to as the ocean waiver provision) of the Clean Water Act gives the EPA Administrator (assuming the State, through the RWQCB (Regional Water Quality Control Board) concurs) the authority to grant permits for discharge of high quality, but less than full secondary-treated, wastewater effluent. Applicants are required to meet all other environmental protection regulations imposed by federal and state agencies and to prove that the marine environment will not be adversely affected. EPA permits for the waivers are federal licenses for activities affecting land or water uses within the coastal zone, and thus, pursuant to CZMA Section 307(c)(3)(A), require Commission consistency review.

Goleta Sanitary District's secondary treatment waiver is the second renewal of a secondary treatment waiver to be brought before the Commission for a vote under the federal consistency provisions. (The City of Morro Bay's 301(h) waiver was concurred with by the Commission in January 1993.) In 1979, and again between 1983-85, the Commission acted on a number of first round secondary treatment waivers. At that time the Commission neither objected nor concurred, but rather adopted a neutral position on the waivers. This non-action had the effect of allowing the Commission's concurrence in the waivers to be conclusively presumed under CZMA Section 307(c)(3)(A). Most of these waivers, including Goleta's, were granted by EPA. The waivers are valid for 5 years (with the possibility of administrative extensions if reissuance requests are pending). For this second round of waivers (i.e., renewals) the Commission has not been taking a neutral position as it did previously. Among the reasons for this policy shift is the fact that, given the extensive monitoring required under Section 301(h) of the Clean Water Act, the Commission now has sufficient information with which to determine whether discharges granted under these waivers adequately protect the marine environment.

Goleta's discharges are relatively small compared to major California dischargers: contrast Goleta's 5.2 million gallons/day (mgd) with the four largest dischargers in Southern California - City of Los Angeles - 375 mgd; L.A. County - 366 mgd; Orange County - 252 mgd; City of San Diego - 183 mgd. Moreover, there is little industry in Goleta, especially when compared with these major dischargers. EPA and the RWQCB have both reviewed Goleta's application. EPA's independent Technical Evaluation determined that Goleta met the applicable Clean Water Act standards for a waiver. Monitoring for the past 5 years indicates that the treatment plant averaged 75 to 93 percent removal of suspended solids, 69 to 93 percent removal of BOD, and low levels of toxics and heavy metals. Further, the monitoring of the biological effects of the discharges supports the applicant's claim that the discharges comply with secondary treatment waiver requirements and would not adversely affect marine resources. On July 26, 1996, the Central Coast RWQCB determined the discharges would meet California Ocean Plan standards, and the modified NPDES permit and 301(h) waiver were approved. As conditioned by the RWQCB, the discharges would not adversely affect marine resources, commercial and recreational fishing, and public access and recreation, and will be consistent with the policies of CCMP.

#### STAFF SUMMARY AND RECOMMENDATION:

##### I. Staff Summary.

A. Project Description. The Goleta Sanitary District has requested a waiver under Section 301(h) of the Clean Water Act (CWA), 33 U.S.C. Section 1311(h), from the secondary treatment requirements contained in Section 301(b)(1)(B) of the CWA, 33 U.S.C. Section 1311(b)(1)(B). The waiver is being sought for discharges from the Goleta Sanitary District's Wastewater Treatment

Plant (WWTP). The waiver would allow the discharge of wastewater receiving less- than-secondary treatment into the Pacific Ocean. The applicant has been operating under a Section 301(h) modified NPDES permit (No. CA0048160) that expired on September 6, 1990. This permit was "administratively extended" on August 24, 1990. The applicant applied for a renewal of the 301(h) modified NPDES permit in March 1990, and a new five-year permit was issued by the U.S EPA on July 26, 1996, and became effective on August 28, 1996.

The Goleta Sanitary District's WWTP is located east of the Santa Barbara Municipal Airport in Goleta, an unincorporated area of Santa Barbara County (Exhibits 1 and 2). The plant provides sewer service to the Goleta Sanitary District, Goleta West Sanitary District (formerly Isla Vista Sanitary District), University of California at Santa Barbara, Santa Barbara Municipal Airport, and facilities of Santa Barbara County. The 1989 service population was 72,900 and it is estimated to become 91,600 by the year 2003. The treatment plant is designed for an average dry weather flow of 9.0 MGD, and peak dry weather flow of 17.0 MGD. Actual 1995 average annual monthly flow was 5.2 MGD. The outfall pipe is 36 inches in diameter and terminates at a 280 foot-long multiport diffuser (Exhibit 3). The diffuser is located approximately 5,900 feet from shore at water depths ranging from 80 to 90 feet. Industrial inputs range between four and eight percent of the average annual flow. Both Goleta Sanitary District and Isla Vista Sanitary District maintain pretreatment programs for regulating and monitoring industrial dischargers.

The existing system is a combined primary and secondary treatment plant that has operated under a modified 301(h) NPDES permit since September 1985. Treatment plant operation began in July 1951 and in 1966 the District began discharging effluent into the Pacific Ocean via the current mile-long outfall. Effluent chlorination began in October 1986. On July 1, 1988, the existing facility was upgraded using a split-stream process of physical and biological treatment. Incoming wastewater flows to three primary sedimentation basins, where solids settling to the bottom and floatable materials rising to the top are mechanically collected and pumped to digesters. The effluent stream is then split and one portion receives secondary treatment. The secondary design capacity of the upgraded facility is 3.8 MGD and involves three treatment elements: a biofilter, a solids-contact channel, and secondary sedimentation tanks. Effluent from this secondary process is combined with primary effluent in the chlorine contact chamber where chlorine gas is used to kill bacteria in the effluent. After the disinfection process is complete, sulfur dioxide is added to dechlorinate the effluent. The treated and disinfected effluent is then discharged to the Pacific Ocean one mile offshore. Sludge removed from primary and secondary sedimentation tanks is treated, dewatered, and transported to a sanitary landfill or made available to the public as a soil amendment. (Exhibits 4-7 provide effluent characteristics.)

The applicant is requesting a continued waiver for both biochemical oxygen demand (BOD) and suspended solids (SS) with the same effluent limits specified in the existing permit. These limits are as follows: BOD of 98/150 mg/L (monthly average/maximum) and suspended solids limits of 63/100 mg/L. On March 2, 1990, the applicant submitted its application to the RWQCB for reissuance of the 301(h) modified NPDES permit. EPA staff reviewed the

District's application and a December 1993 EPA-contractor-prepared Technical Review Report analyzing the application. EPA issued its tentative decision granting the applicant's request for a 301(h) waiver on January 6, 1994.

However, in November 1994, the Central Coast Regional Water Quality Control Board denied Waste Discharge Requirements Order No. 94-87 which would have granted the 301(h) waiver due to concerns over potential impacts on shellfish resources from the wastewater discharge. The applicant petitioned the State Water Resources Control Board in a timely manner to review the Regional Board's denial on the basis that the waiver criteria were met.

During a hearing on February 22, 1996, the State Board adopted Order No. WQ 96-3, which concluded that:

- The discharge meets federal Clean Water Act criteria for a waiver.
- All applicable water quality objectives are currently being met and are expected to continue to be met under the terms of the proposed permit.
- Shellfish harvesting areas in the vicinity of the discharge have been in compliance with bacterial standards and it is unlikely that the discharge pursuant to the proposed permit will adversely impact shellfish growing areas.

Order No. WQ 96-3 directed the Regional Board to reconsider the permit and issue a new order granting a waiver from secondary treatment, including:

- A median and maximum total coliform limit that reflects the coliform level in the discharge since 1988.
- A requirement that the Goleta Sanitary District notify certified commercial shellfish growers and the State Department of Health Services of accidental discharges of high bacterial levels from the plant.

Order No. 96-21 includes the discharge and receiving water specifications, and monitoring and reporting requirements included in Order No. 94-87 in addition to State Water Board Order WQ 96-3 requirements. On July 26, 1996, the Central Coast Regional Water Quality Control Board approved Order No. 96-21 for the Goleta Sanitary District, and EPA granted the District a five-year renewal of its modified NPDES permit (No. CA0048160) under section 301(h) of the Clean Water Act (Exhibit 8). The permit became effective on August 28, 1996. It is this permit which is the subject of this consistency certification.

B. 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 the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's

decision, but it can be used as background information. The County of Santa Barbara LCP has been certified by the Commission and has been incorporated into the CCMP.

C. Applicant's Consistency Certification. The Goleta Sanitary District has certified that the 301(h) waiver complies with California's approved Coastal Management Program and will be conducted in a manner consistent with such program.

II. Staff Recommendation:

The staff recommends that the Commission adopt the following resolution:

Concurrence

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

III. Findings and Declarations:

The Commission finds and declares as follows:

A. Previous Commission Reviews of Secondary Treatment Waivers. In 1979, and 1983-5, the Commission reviewed a number of 301(h) 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. This concern was later incorporated into the Clean Water Act in 1987 amendments to the Act, which provide:

...in the case of any treatment works serving a population of 50,000 or more..., the applicant [must have] in effect a pre-treatment program which, in combination with the treatment of discharges from such works, removes the same amount of such a pollutant as would be removed if such works were to apply secondary treatment to discharges...

Specifically on the waivers submitted in 1979 and 1983-85, the Commission consciously adopted a neutral position 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 15 CFR Section 630.63(a).

The Commission is not limited to this position of neutrality, as Section 307(f) of the CZMA specifically incorporates the Clean Water Act, and state water quality standards adopted pursuant to it, such as those contained in the Ocean Plan, into the California Coastal Management Program (CCMP). Thus Commission consistency review is, as it always has been, available. The Commission's 1979 position of neutrality was taken based on a number of factors, including limited staff resources, a reservation of the right to comment through the SWRCB's process, and the fact that the 301(h) permits must

come up for re-issuance every five years. Also, it should be noted that the Commission's position was not completely neutral; as stated above the Commission articulated an expectation that secondary equivalency would be achieved for toxic pollutants, although this "expectation" had no force of law to support it. Rather the Commission's position could be viewed as an articulation of the need for flexibility, as the Commission was focusing on the need to achieve the benefits that would normally be expected from a well-run secondary treatment program, and if equivalent or greater benefits to the marine environment could be achieved by some other method, the Commission did not believe the regulatory regime would be well served by an inflexible approach. The Commission also noted that extensive monitoring would be performed, which should enable an evaluation by the relevant agencies to determine whether the goal of secondary equivalence has been achieved. The Commission believes its 1979 position may have been a factor in the later incorporation into the Clean Water Act in 1987 of "secondary equivalency" requirements for toxics within the 301(h) waiver process. The Commission's position was accompanied by adoption of a resolution, which stated in part:

WHEREAS, the revised Ocean Plan protects the water quality in the marine environment, but is not specifically oriented towards reducing the discharge of toxic pollutants to the same degree as secondary treatment.

WHEREAS, the Commission also is aware that EPA has recently promulgated industrial pre-treatment regulations that will require best available pre-treatment by industries discharging to municipal sewerage systems, and in some cases this will require even greater removal of pollutants than that called for in the State's Ocean Plan.

WHEREAS, the Commission recognizes that although analysis of the feasibility of restoring the marine environment and analysis of the water quality standards necessary to protect and restore the marine environment is beyond the expertise and jurisdiction of the Commission, existing practices are causing damage to the marine environment, and feasible corrective steps should be taken.

NOW THEREFORE BE IT RESOLVED that the Coastal Commission urges that any treatment method selected ensure that the total discharge of toxic pollutants is not greater than that which would be discharged from a properly designed and operated secondary treatment plant, or no greater than permitted under the Ocean Plan, whichever is less; whether this method consists of secondary treatment, reclamation, industrial pre-treatment, or physical treatment methods.

Also accompanying these reviews, the Commission stated in a letter to the SWRCB:

The essence of the [Commission's] resolution ... urges that '... the total discharge of toxic pollutants is not greater than that which would be discharged from a properly designed and operated secondary treatment plant ...' .... The resolution establishes a position that the treatment method or methods selected should result in at least the degree of removal that would be achieved with secondary treatment. The resolution is flexible enough to encourage alternative treatment methods such as

reclamation and/or industrial pre-treatment rather than to require an inflexible treatment standard.

The Commission informed the dischargers of its position as they submitted consistency certifications on the following dates:

Ventura County Sanitation District	May 22, 1979
City of San Diego	July 24, 1979
Watsonville	September 14, 1979
County of Los Angeles	September 18, 1979
Monterey RWPCA	September 19, 1979
County of Orange	September 20, 1979
Goleta Sanitary District	December 6, 1979
San Francisco	December 6, 1979
Leucadia CWD	January 4, 1983
Ventura CSD	October 5, 1983
Aliso Water Management Agency	February 16, 1984
Goleta Sanitary District	February 24, 1984
City of Morro Bay	August 8, 1984
S.E. Regional Reclamation Authority	April 2, 1984
City of Santa Barbara	February 16, 1984
City of Avalon	February 20, 1985
City of Los Angeles	February 20, 1985

In a related matter, in March 1987 the Commission denied a permit to the City of Santa Cruz for treatment plant improvements for advanced primary treatment, in part because the Commission found that advanced primary was not the level of treatment called for in the LCP, which provided for the highest water quality standards available. The Commission found the secondary treatment waiver the City had applied for from EPA was not consistent with the LCP policy. The City subsequently withdrew its waiver and, like many of the above dischargers, elected to provide for full secondary treatment.

Section 301(h) waivers are only valid for 5 years, and three of the waivers initially granted are now up for renewal: Orange County, Morro Bay, and Goleta. In 1989, Orange County was the first applicant to apply to the Commission for for a 301(h) waiver renewal (its original 301(h) waiver was granted by EPA/RWQCB in 1985). The Commission held a workshop on the issues raised, but deferred action pending completion of EPA's Technical Evaluation of Orange County's application. The County's 301(h) waiver renewal is likely to be resubmitted to the Commission at a future date.

The Commission concurred with Morro Bay's 301(h) waiver renewal in CC-88-92; Morro Bay's was the first of the 301(h) waiver renewals to be brought before the Commission for a vote. In addition, in NE-94-95, after a Commission public hearing, the Executive Director concurred with the City of San Diego's 301(h) waiver (this was not a renewal but an initial waiver).

#### B. Water Quality

1. Regulatory Framework. Treated municipal wastewater is discharged to the Pacific Ocean under NPDES permits issued jointly by the EPA and the

applicable RWQCB (Regional Water Quality Control Board). These two agencies administer 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, because, according to NOAA:

secondary treatment levels had been developed solely for freshwater bodies and that flushing effects of coastal waters rapidly dispersed and carried primary treatment discharges into the open ocean. Consequently, many municipalities claimed that no significant environmental benefit was to be gained from the secondary treatment, especially in light of the substantial construction, operating and maintenance costs involved.

Section 301(h) of the Clean Water Act provides that an NPDES permit which modifies EPA's secondary treatment requirements may be issued if the applicant: (1) discharges into oceanic or saline, well-mixed estuarine waters; and (2) demonstrates, to the satisfaction of the Administrator, that the modifications will meet those requirements specified in Section 301(h). To grant a 301(h) waiver, EPA must be satisfied that the waiver will not result in any increase in the discharge of toxic pollutants or otherwise impair the integrity of receiving waters. Further, if a waiver is granted, 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 in indigenous marine biota. In California, the applicable standards are embodied in the California Ocean Plan, which specifies detailed ocean quality standards and treatment plant performance criteria.

The State of California administers an approved NPDES permit program and issues permits for discharge to waters within State jurisdiction. Authority to grant a waiver and issue a modified NPDES permit under Section 301(h) of the Act is, however, reserved to the Regional Administrator of the EPA. Concurrence by the State on the issuance of a modified permit is required by Section 301(h) of the Act.

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, both because EPA NPDES permits are listed federal licenses or permits for activities affecting land or water uses in the coastal zone, and because these licenses or permits are specifically listed in California's program as triggering consistency review. In reviewing the discharges, the Commission relies on the Clean Water Act and its implementing regulations, the California Ocean Plan, the Coastal Act, and Water Code section 13142.5, incorporated into the Coastal Act by Section 30412(a) thereof, which provide both specific numerical standards for pollutants, as well as general standards for protection of marine biological productivity. These standards are described and summarized in the following three sections.

(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 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 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) the discharge of pollutants in accordance with such modified requirements [i.e., the secondary treatment waiver] 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 of shellfish, fish, and wildlife, and allows recreational activities in and on the water (301(h)(2)).
- (2) the applicant has established a system for monitoring the impact of such discharge on a representative sample aquatic biota, to the extent practicable (301(h)(3));
- (3) such modified requirements will not result in any additional requirements on any other point or nonpoint source ((301(h)(4));
- (4) all applicable pre-treatment requirements for sources introducing waste into such treatment works will be enforced (301(h)(5));
- (5) 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 (301(h)(8)); and
- (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 pre-treatment program which, in combination with the treatment of discharges from such works, removes the same amount of such a 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 (301(h)(6)).

(b). California Ocean Plan. The California Ocean Plan regulatory scheme is summarized in Exhibit 9, and Exhibit 10 provides Ocean Plan water quality objectives for the Goleta Sanitary District outfall. The Ocean Plan was originally adopted by the SWRCB and approved by the EPA in June 1972, and was last revised in March 1990. Among the California Ocean Plan requirements are the following water quality objectives:

- Bacteriological Standards: for body-contact and shellfish harvesting.
- 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.
- 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.
- Biological Characteristics: that marine communities not be degraded, and that the taste, odor and color of fish or shellfish used for human consumption not be altered.

Water quality objectives of Chapter II of the Ocean Plan (p.4) include:

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 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.

General requirements for management of waste discharge to the ocean that are incorporated into the Ocean Plan (pp.4-5) 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: ...
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 additional standards defining "Conservative Estimates of Chronic Toxicity."

(c). Coastal Act Policies. 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 marine water quality protection policies, Section 30412 addresses the Commission's relationship with the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB). Section 30412 provides:

(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.

Section 13142.5 of the Water Code states:

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 area-wide 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 and RWOCB's Analysis of Goleta Sanitary District's Discharges.  
EPA conducted a technical evaluation of the Goleta Sanitary District's 301(h) waiver application, which analyzed the District's compliance with the 301(h) criteria. This evaluation states in part that:

Under 40 CFR 125.60, 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 has requested modified requirements for BOD which affects DO (dissolved oxygen), and SS (suspended solids) which affects turbidity or light attenuation in the receiving waters and may affect the benthos by eventually settling and accumulating on the seafloor. The State of California has established WSQs (water quality standards) for DO and light transmittance in the Water Quality Control Plan, Ocean Waters of California (COP; State Water Resources Control Board, 1990:3-4) and the Water Quality Control Plan, Central Coast Basin (Basin Plan; State Water Resources Control Board and California Regional Water Quality Control Board (Central Coast Region), 1989:III-3, III-13 - III-14). Beneficial uses of the Pacific Ocean in the vicinity of Goleta discharge are summarized in the COP (State Water Resources Control Board, 1990:1).

Existing and anticipated beneficial uses of the Pacific Ocean in the vicinity of the discharge include industrial water supply, water contact and noncontact recreation, aesthetic enjoyment, commercial and sport fishing, mariculture, rare and endangered species, marine habitat, and shellfish harvesting.

Addressing the impacts of the discharges, EPA's Technical Evaluation provides:

Biological Impact of Discharge (40 CFR 125.61(c))

The proposed modified discharge must allow for the attainment or maintenance of water quality to protect a balanced 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 ZID that might be affected by the proposed modified discharge. [A "balanced indigenous population", as defined by 40 CFR 125.88 (f), is an ecological community which exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions.]

Under the current 301(h) modified NPDES permit, the applicant is required to monitor local communities of benthic infauna, fish and benthic invertebrates, and bioaccumulation of toxic pollutants and pesticides in specific marine organisms. Data collected by the applicant were reanalyzed in the Technical Review Report (TRR) (Tetra Tech, Inc., 1993:52-91, 96-113, A-4 - A-38).

EPA also found that:

The Goleta discharge exerts a minor influence on the physical and chemical characteristics of area sediments.

Measures of infaunal benthic community structure do not indicate that the Goleta discharge is significantly affecting the benthic community.

Benthic megainvertebrate assemblages are not impacted by the Goleta discharge.

There is no indication of any impacts on local demersal fish assemblages resulting from the operation of the Goleta discharge.

Trace element and priority pollutant measured concentrations in California mussel tissue from 1986 through 1991 do not show a consistent pattern indicating an outfall-related effect.

1986 through 1992 monitoring data indicate that the applicant's discharge has not substantially altered community trophic structure in the vicinity of the outfall. Continued discharge at less than secondary treatment should not significantly impact marine communities in the vicinity of the Goleta discharge. Therefore, EPA concludes that the proposed discharge will assure the attainment and maintenance of adequate water quality for the protection and propagation of the marine BIP found beyond Goleta outfall's ZID (zone of initial dilution).

Further discussion from EPA's Technical Evaluation is provided in Exhibit 11 (EPA permit conditions) and Exhibit 12 (EPA's decision-making criteria for granting a waiver).

EPA's Technical Evaluation concluded with the following summary of findings:

Based upon review of the data, the references and empirical evidence furnished in the 1990 NPDES permit application and summary report, and the TRR, EPA Region 9 makes the following findings with regard to compliance with the statutory and regulatory criteria:

- The applicant's proposed discharge will comply with the California State Water Quality Standards (WSQs) for dissolved oxygen (DO) and pH. The predicted maximum increase in SS following initial dilution is expected to comply with SS and turbidity WQSs. [Section 301(h)(1), 40 CFR 125.60]
- The applicants 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, and will allow for recreational activities. [Section 301(h)(2), 40 CFR 125.61]
- The applicant has proposed a system for monitoring the impact of the discharge. EPA and the California Regional Water Quality Control Board (Central Coast Region) will develop a proposed monitoring

program based on analytical results of 1986 through 1993 monitoring data before permit reissuance. [Section 301(h)(3), as amended by Section 303(b) of the Water Quality Act (WQA) of 1987, 40 CFR 125.62]

- The applicant's proposed discharge will not result in any additional treatment requirements on any other point or nonpoint sources [Section 301(h)(4), 40 CFR 125.63].
- The applicant has developed a program to enforce all applicable pretreatment requirements. This program was approved under 40 CFR 403 by EPA Region IX on July 19, 1983. Forty-four technical local limits were adopted by GSD on May 1, 1992. [Section 301(h)(5), 40 CFR 125.64].
- The EPA is currently developing draft regulations for determining secondary equivalency for toxics. Based on current guidance, the applicant may satisfy the secondary equivalency requirement via the establishment of technical local limits. This is not a final assessment of secondary equivalency, as EPA regulations have not been promulgated. [Section 301(h)(6), Section 303(c) of the WQA (1987)].
- The applicant has implemented an acceptable schedule of activities intended to limit the entrance of toxic pollutants from nonindustrial sources into the treatment works. [Section 301(h)(7), 40 CFR 125.64].
- There will be no new or substantially increased discharges from the point source of the pollutants to which the variance would apply above those specified in the Section 301(h) modified NPDES permit. [Section 301(h)(8), 40 CFR 125.65].
- GSD has demonstrated through past performance that its treatment facilities will be removing more than 30 percent of the influent BOD and SS; and after initial dilution will be in compliance with all applicable Federal Water Quality Criteria (WQC), as established under Section 304(a) of the CWA. [Section 301(h)(9), as amended by 303(d) of the WQA (1987)].
- The applicant has demonstrated compliance with the Endangered Species Act only with respect to the California gray whale (Eschrichtius robustus). The National Oceanic and Atmospheric Administration (NOAA) has identified the California gray whale as one endangered species regularly found in the vicinity of the Goleta outfall. A determination by the U.S. Fish and Wildlife Service must be made with respect to the brown pelican (Pelecanus occidentalis) and the western snowy plover (Charadrius alexandrinus) before applicant compliance with the Endangered Species Act is fully demonstrated. [40 CFR 125.59(b)(3)].

The RWQCB adopted comparable findings in its review and preparation of Waste Discharge Requirements associated with Order 96-21:

Pursuant to 40 CFR 125.60(b)(2) and 125.63(b) of the 301(h) regulations dated July 1, 1993, staff of the Regional Board tentatively determined by

letter dated September 12, 1994, that the proposed modified discharge, as described in the Discharger's 301(h) application, would comply with applicable State laws, including water quality standards, and would not result in additional treatment, pollution control, or other requirements on any other point or nonpoint source.

The requirements in this Order and Permit are based on the Ocean Plan, Basin Plan, other Federal and State plans and policies, current plant performance, and best engineering judgement. Critical (minimum) initial dilution for determining compliance with Ocean Plan, Chapter IV, Table B toxic materials objectives is 122:1. Critical initial dilutions for determining compliance with federal water quality criteria (where applied) are calculated based on guidance in the Revised Section 301(h) Technical Support Document (EPA 430/9-82-011, 1982). Critical initial dilutions for determining compliance with federal water quality criteria for the protection of aquatic life and the protection of human health are 55:1 and 170:1, respectively.

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 CWA (as amended or as supplemented by implementing guidelines or 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 CWA. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.

3. Commission Conclusion. Based on the information presented by EPA and the RWQCB, the Commission finds that less than secondary discharges by the Goleta Sanitary District, as conditioned by the RWQCB, would meet all applicable water quality standards and would protect marine resources. Monitoring for the past 5 years indicates that the treatment plant averaged 75 to 93 percent removal of suspended solids, 69 to 93 percent removal of BOD, and low levels of toxics and heavy metals. Further, the monitoring of the biological effects of the discharges supports the applicant's claim that the discharges comply with secondary treatment waiver requirements and would not adversely affect marine resources. As conditioned by EPA and the RWQCB, the discharges would not adversely affect marine resources, commercial and recreational fishing, and public access and recreation. Based on the available evidence, the Commission finds that as conditioned by EPA and the RWQCB, the discharges would not adversely affect marine resources and would be consistent with the applicable water quality provisions of the the Coastal Act and CCMP.

B. Commercial Fishing. 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 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 states:

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

In its analysis of Goleta's application for a 301(h) waiver, EPA reports that:

Although the precise locations of most commercial fishing areas are not available, a number of small commercial fisheries exist in the vicinity of the Goleta outfall (Tetra Tech, Inc., 1993:91-92)....

In 1990, California Department of Fish and Game listed five companies with mariculture leases in the vicinity of Santa Barbara. Goleta outfall is also located near a kelp bed leased by Neushuel Mariculture Company (Tetra Tech Inc., 1993: 91-92).

...

Goleta Beach County park is immediately inshore of Goleta outfall. The applicant indicates that recreational activities in the vicinity of the ocean outfall include sunbathing, picnicking, swimming and wading, clamming, boating, and fishing (Brown and Caldwell Consultants, 1990: 3-38, Fig. 3-4). Goleta Pier is located just south of the outfall and is used for fishing and small boat launching.

In commenting on the proposed 301(h) waiver, the Commission staff and a central California shellfish harvester expressed concern that the proposed permit needed to address in greater detail potential effects of the discharge on shellfish harvested adjacent to the outfall terminus.

In response, EPA and the Regional Board report that:

Municipal wastewater discharges in the vicinity of shellfish growing areas constitute a particularly sensitive public health concern because of the ability of shellfish to bioconcentrate contaminants (including bacteria and viruses), as a result of their filter feeding process. The Discharger's monthly receiving water monitoring for coliform at eight ocean stations near the point of discharge has consistently demonstrated compliance with the Ocean Plan requirements since the WWTP began chlorinating the effluent in late 1986. The State Department of Health

Services has also established an emergency notification safety zone (prohibitive zone) for shellfish harvesting within a one mile radius of the point of discharge.

To additionally ensure that the coliform in the discharge does not impair the Ocean's beneficial uses, the NPDES permit and the RWQCB Waste Discharge Requirements include measures to limit effluent coliform. First, the District must maintain a total chlorine residual of 5 mg/L or greater (calculated as a 7-day average) at the end of the chlorine contact chamber before dechlorination and discharge to the Pacific Ocean. Ensuring that adequate chlorine residual is present in the discharge, confirmed by daily monitoring of peak loading conditions, will confirm that the plant continues to discharge coliform at levels protective of beneficial uses. As a second control, effluent total coliform bacteria shall be limited to less than 2,400 MPN/100 mL, provided that not more than 10 percent of the samples in any monthly (30 day) period exceed 2,400 MPN/100mL or any sample exceeds 16,000 MPN/100mL. The proposed NPDES permit and Waster Discharge Requirements also continue to require ocean monitoring for total and fecal coliform bacteria.

To conclude, the Commission believes the commercial/recreational fishing concerns previously raised by shellfish growers have been adequately addressed in the permit conditions established by EPA and the RWQCB. Therefore, based on the available evidence, the Commission finds that, as conditioned by EPA and the RWQCB, the discharges would not adversely affect commercial and recreational fishing and would be consistent with the applicable commercial and recreational fishing policies of the Coastal Act and the CCMP.

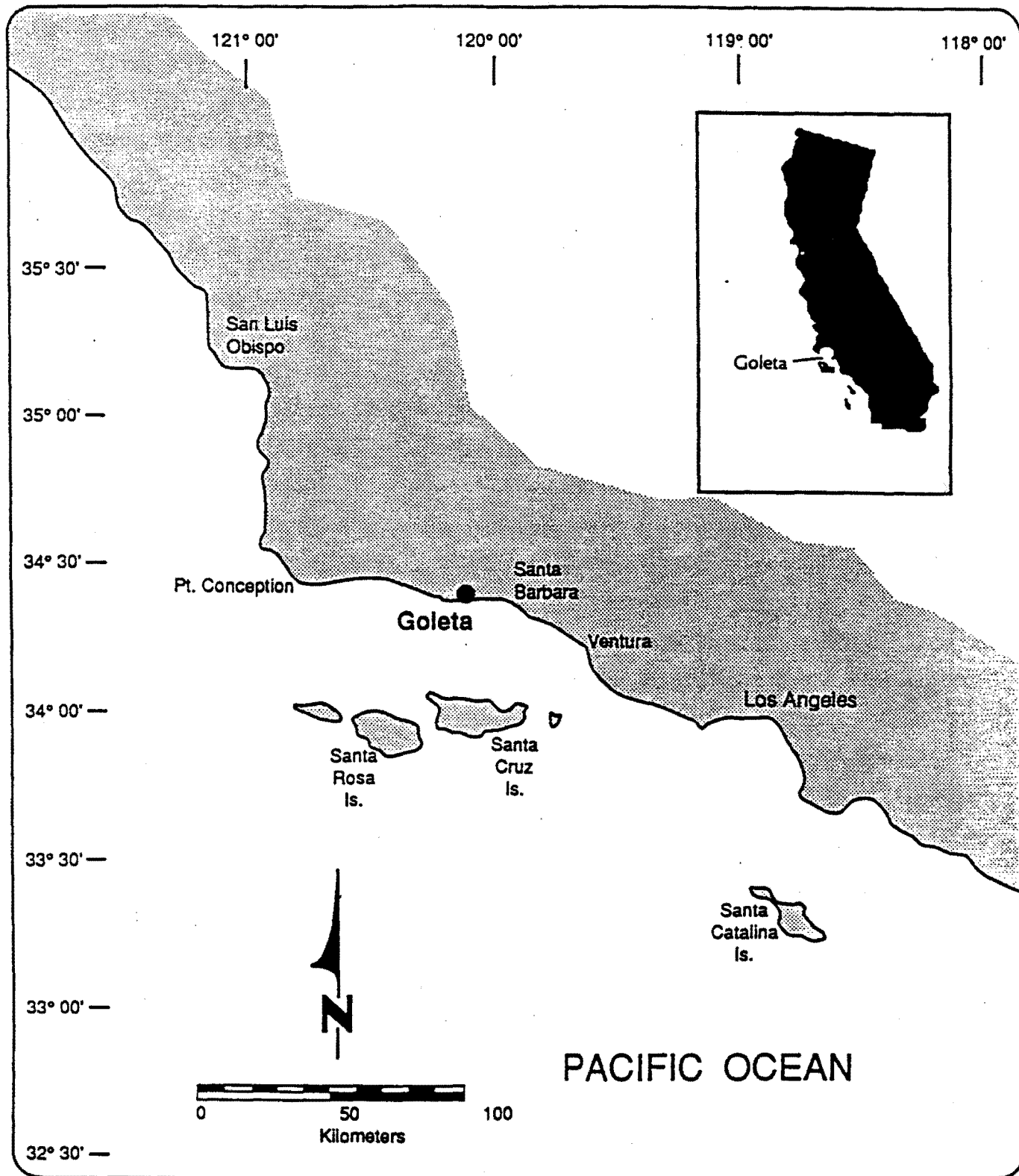


Figure 1. Location of the Goleta Sanitary District Wastewater Treatment Plant and Outfall

EXHIBIT NO. **1**  
 APPLICATION NO.  
**CC-126-96**

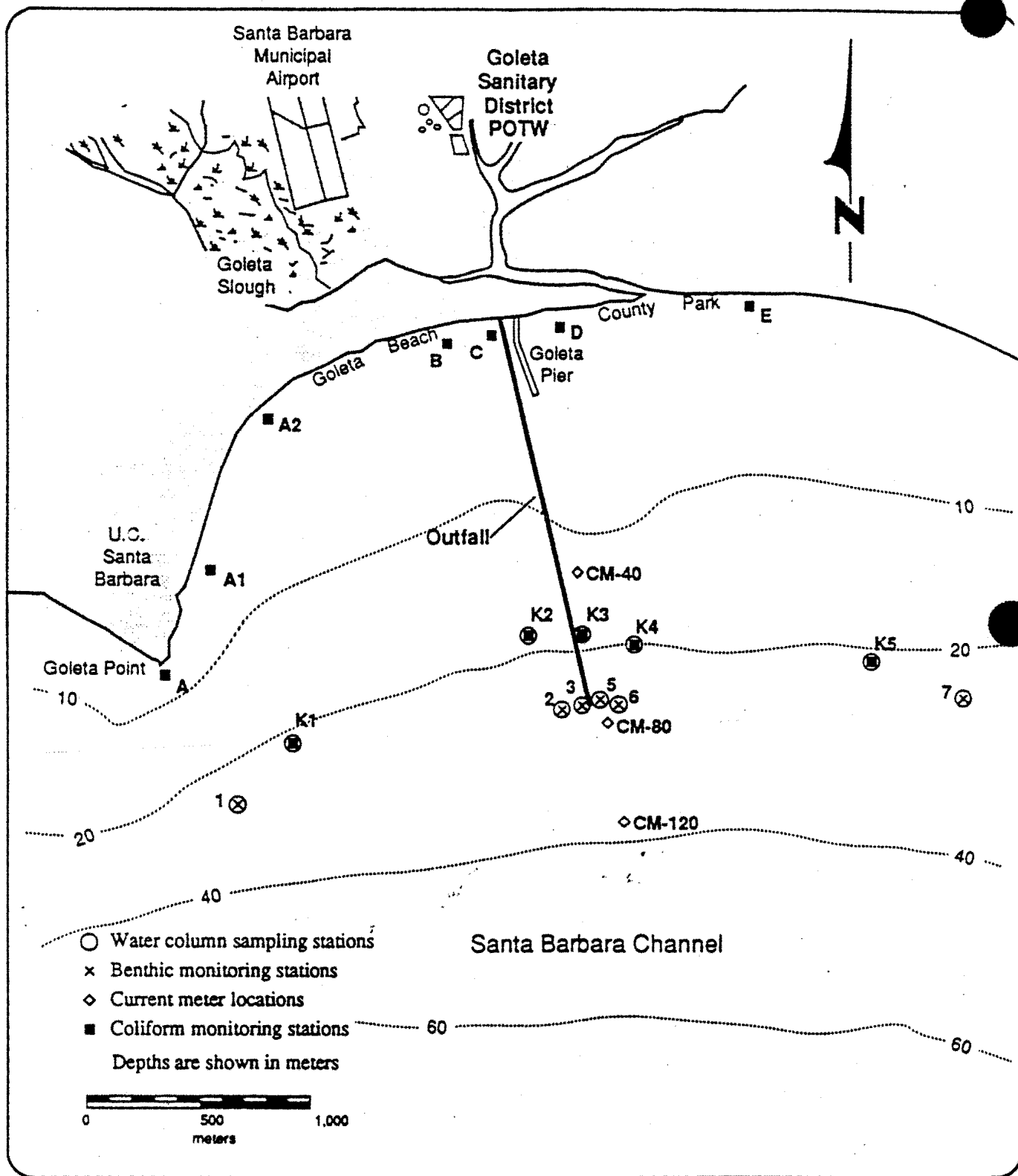


Figure 2. Location of current meter moorings, coliform monitoring stations, benthic monitoring stations, and water column sampling stations

EXHIBIT NO. 2  
APPLICATION NO.  
CS-126-96

TABLE 1. HYDRAULIC CHARACTERISTICS OF THE GOLETA OUTFALL  
AND DIFFUSER SYSTEM

Outfall diameter	0.91 m (36 in)
Outfall length	
land	732 m (2402 ft)
ocean	1802 m (5912 ft)
Diameter of diffuser	0.91 m (36 in)
Length of diffuser	85.3 m (280 ft)
Slope of diffuser	2.6° (4.45 cm/m)
Port diameter	0.10 m (4.0 in)
Port orientation	18° above the horizontal (east) 27° above the horizontal (west)
Spacing between ports <sup>a</sup>	2.4 m (8.0 ft)
Port discharge depth	24.7-28.5 m (81.0-93.5 ft) below MLLW
Number of ports	36
Relative specific gravity difference between discharge and ambient water column	0.0255
Effluent density	0.9997 g/cm <sup>3</sup>

<sup>a</sup>Ports are staggered on alternate sides of the diffuser. Distance between ports on each side is 4.9 m (16 ft). Two ports are located at the seaward end of the diffuser.

Sources: Brown and Caldwell (1990a, 1979).

EXHIBIT NO. 3
APPLICATION NO.
CC-126-96
California Coastal Commission

TABLE 6. PROJECTED EFFLUENT VOLUME AND MASS EMISSION RATES OF  
SUSPENDED SOLIDS AND BOD<sub>5</sub>, 1990, 1994, AND 1999

Year	1990	1994	1999
Average Daily Flow			
m <sup>3</sup> /sec	0.292	0.320	0.335
MGD	6.66	7.31	7.64
5-Day BOD <sub>5</sub>			
mg/L <sup>a</sup>	46.8	48.5	50.7
mt/yr	431	490	535
1,000 lb/yr	950	1080	1180
kg/day	1180	1342	1466
lb/day	2602	2959	3233
Total Suspended Solids			
mg/L <sup>a</sup>	30.4	31.5	32.9
mt/yr	279	318	347
1,000 lb/yr	616	701	766
kg/day	766	872	951
lb/day	1688	1922	2098

<sup>a</sup> These concentrations are calculated based on mass emission rates and flow rates provided by the applicant in Table 2-2 of the Summary Report (Brown and Caldwell, 1990a)

EXHIBIT NO. 4
APPLICATION NO.
CC-126-96
California Coastal Commission

TABLE 3. EFFLUENT CHARACTERISTICS (FLOW, BOD<sub>5</sub>, SUSPENDED SOLIDS AND pH)  
OF THE GOLETA WASTEWATER TREATMENT PLANT, 1989

Parameter	Value 1989
Plant flow, m <sup>3</sup> /sec* (MGD)	
minimum	0.190 (4.33)
average dry weather	0.246 (5.61)
average wet weather	0.253 (5.78)
annual average	0.249 (5.69)
maximum	0.293 (6.69)
BOD <sub>5</sub> (mg/L) for:	
minimum plant flows	25.6
average dry weather plant flows	35.2
average wet weather plant flows	39.8
annual average plant flows	37.5
maximum plant flows	64.9
Suspended solids (mg/L) for:	
minimum plant flows	15.2
average dry weather plant flows	20.8
average wet weather plant flows	28.9
annual average plant flows	24.8
maximum plant flows	35.6
Dissolved oxygen (mg/L) for:	
minimum plant flows	4.2
average dry weather plant flows	N/A
average wet weather plant flows	N/A
annual average plant flows	4.5
maximum plant flows	4.7
pH	
minimum	7.1
maximum	7.4

\* m<sup>3</sup>/sec values derived from applicant's MGD values

N/A = not supplied by applicant

Source: Brown and Caldwell (1990a)

EXHIBIT NO. 5
APPLICATION NO.
CC-126-96
California Coastal Commission

TABLE 5. SUMMARY OF PRIORITY POLLUTANT AND PESTICIDE CONCENTRATIONS  
IN THE GOLETA EFFLUENT ( $\mu\text{g/L}$ ), 1986-1989

Parameter	Number of Occurrences <sup>a</sup>	Mean Concentration <sup>b</sup>	Maximum Concentration
<u>Purgeables:</u>			
Acetone	1	-	100
Benzene	3	1	2
Bis (2-ethylhexyl) phthalate	1	-	19
Bromodichloromethane	4	11	36
Chloroform	8	35	170
Dibromochloromethane	1	-	1
Ethylbenzene	4	2	5
Methylene Chloride	7	32	65
Tetrachloroethylene	2	21	27
Trichloroethylene	3	3	7
Toluene	4	4	8
1,1,1-Trichloroethane	4	7	12
Chlorobenzene	1	-	1
1,4-Dichlorobenzene	1	-	2
<u>Extractables:</u>			
Diethylphthalate	1	-	20
Naphthalene	1	-	10
4-chlorophenylphenylether	1	-	10
Dieldrin	1	-	0.92
Cyanide <sup>c</sup>	5	0.03	0.05
<u>Phenolic compounds:</u>			
Phenol	2	15	23
2-Nitrophenol	1	-	30
4-Nitrophenol	2	115	80
2-Methyl-4, 6-dinitrophenol	1	-	270
2,4-Dichlorophenol	2	48	84
<u>Pesticides/PCBs:</u>			
DDD	1	-	0.13
DDT	1	-	0.095
Malathion	2	1.4	1.6
Parathion	1	-	0.3
Methyl Parathion	1	-	2.3
Diazinon	2	0.30	0.37

<sup>a</sup>Number of times a parameter was detected during semiannual sampling: 8 total samples.

<sup>b</sup>Based on measured concentrations.

<sup>c</sup>Sampled monthly: 48 total samples.

Source: Brown and Caldwell (1990a, Table 2-6)

EXHIBIT NO. 6
APPLICATION NO.
CC-126-96
California Coastal Commission




TABLE 4. SUMMARY OF TRACE ELEMENT CONCENTRATIONS  
IN THE GOLETA EFFLUENT ( $\mu\text{g/L}$ ), 1986-1989

Parameter	Number of Occurrences <sup>a</sup>	Mean Concentration <sup>b</sup>	Maximum Concentration
Arsenic	3	23	30
Cadmium	2	40	60
Chromium	0	-	< 40
Copper	41	110	590
Lead	3	300	500
Mercury	3	1	1.7
Nickel	5	76	110
Silver	2	20	30
Zinc	32	80	250

<sup>a</sup>Number of times a parameter was detected during monthly sampling: 48 total samples.

<sup>b</sup>Based on measured concentrations.

Source: Brown and Caldwell (1990a, Table 2-5)

EXHIBIT NO. 7
APPLICATION NO.
CC-126-96
 California Coastal Commission

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  
81 Higuera Street, Suite 200  
San Luis Obispo, Ca 93401-5427  
Order No. 96-21  
Waste Discharge Requirements

FOR  
GOLETA SANITARY DISTRICT  
AND LOCAL SEWERING ENTITIES OF  
GOLETA WEST SANITARY DISTRICT,  
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA,  
SANTA BARBARA MUNICIPAL AIRPORT,  
AND 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:

1. The Goleta Sanitary District (Discharger) operates a wastewater collection, treatment, and disposal system to provide sewerage service to Goleta Sanitary District, Goleta West Sanitary District (formerly Isla Vista Sanitary District), University of California at Santa Barbara, Santa Barbara Municipal Airport, and facilities of Santa Barbara County.
2. 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 Discharger. It is incumbent upon these local sewerage 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 sewerage 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.
3. The Discharger applied to EPA for a variance from secondary treatment requirements allowed under section 301(h) of the Clean Water Act (CWA) on September 7, 1979. On September 8, 1981, EPA tentatively approved the requested variance. On November 16, 1983, the Discharger submitted a revised application which was tentatively denied by EPA on March 26, 1984. Order No. 85-69 was approved by the Regional Board on September 6, 1985, and NPDES Permit No. CA0048160 was issued to the Discharger by EPA on September 30, 1985, based on EPA's 1981 Tentative Decision Document (TDD). On August 31, 1990, this Order and Permit was modified by the Regional Board and EPA. This Order expired on September 6, 1990, and was administratively extended on August 24, 1990.
4. The Discharger applied for reissuance of its 301(h) modified NPDES permit on March 2, 1990 and requested to renew the following effluent limitations:

	Monthly (30-day average)	Maximum (at any time)
Biochemical Oxygen Demand (mg/L)	98	150
Suspended Solids (mg/L)	63	100
pH	6.0 - 9.0	

These effluent limitations are based on Goleta Wastewater Treatment Plant (WWTP) design specifications for combined primary and secondary effluent quality under peak seasonal dry weather flow (9.7 MGD) waste loading conditions.

5. Tetra Tech, Inc., contractor to EPA, summarized its evaluation of the Discharger's revised 301(h) application in a draft Technical Review Report (TRR) dated December, 1993. EPA reviewed the application and TRR before drafting the TDD. The TDD evaluated a discharge of effluent through 1999, as specified below:

EXHIBIT NO. 8

APPLICATION NO.

CC-126-96

<u>PARAMETER</u>	<u>AVERAGE</u>	<u>1999<sup>(3)</sup></u>	<u>PROPOSED<sup>(4)</sup></u>
Flow (MGD)	6.8 <sup>(1)</sup>	7.64	9.0
BOD <sub>5</sub> (mg/L)	46.4 <sup>(2)</sup>	50.7	98
SS (mg/L)	30.1 <sup>(2)</sup>	32.9	63
pH	7.1-7.4 <sup>(2)</sup>	--	6.0-9.0

(1) 1986 annual average flow in million gallons per day.

(2) 1988-89 post-upgrade average or range.

(3) Projected end of permit.

(4) Proposed by the Discharger.

EPA's tentative decision was issued on January 6, 1994, granting the Discharger's request for the following parameters: BOD<sub>5</sub>, SS and pH.

6. At its November 18, 1994 public hearing, the Central Coast Regional Water Quality Control Board denied Waste Discharge Requirements Order No. 94-87 which would have granted the 301 (h) waiver. The Discharger petitioned the State Water Resources Control Board in a timely manner to review the Regional Board's denial, challenging it on the basis that the waiver criteria have been met.
7. During a hearing on February 22, 1996, the State Board adopted Order No. WQ 96-3. Order No. WQ 96-3 concluded: the discharge meets federal CWA criteria for a waiver; all applicable water quality objectives are currently being met and are expected to continue to be met under the terms of the proposed permit; and shellfish harvesting areas in the vicinity of the discharge have been in compliance with bacterial standards and it is unlikely that the discharge pursuant to the proposed permit will adversely impact shellfish growing areas. Order No. WQ 96-3 directed the Regional Board to reconsider the permit and issue a new order which grants a waiver from secondary treatment and includes: a median and maximum total coliform limit that reflects the coliform level in the discharge since 1988; and a requirement that the District notify certified commercial shellfish growers and the State Department of Health Services of accidental discharges of high bacterial levels from the plant. Proposed Order No. 96-21 includes the discharge and receiving water specifications, and monitoring and reporting requirements included in Order No. 94-87 in addition to the State Board ordered requirements.
8. The Goleta WWTP is located on property owned by the Discharger at 1000 Fowler Road, Goleta, CA, 93117, (T4N, R28W, Section 17, SB B&M) as shown on Attachment "A".
9. The existing Goleta WWTP upgraded operation on June 1, 1988 by using a split-stream process of physical and biological treatment. All wastewater flows through primary sedimentation basins. A portion is then diverted through secondary treatment facilities including biofiltration, solids-contact, and secondary clarification. Secondary-treated wastewater is then blended with primary-treated wastewater and disinfected by chlorination/dechlorination prior to ocean discharge. Sludge is anaerobically digested, and stored in stabilization basins, air-dried and used as a soil conditioner. Industrial wastewater is subject to waste pretreatment requirements. The plant has the following primary and secondary design capacities:

<u>Primary Treatment Waste Loading</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 Loading</u>	<u>MGD</u>
Constant Flow	3.8

10. Treated municipal wastewater is discharged to the Pacific Ocean through a 1802 m (5912 ft) ocean outfall/diffuser system. The outfall terminates in the Santa Barbara Channel (34°24'06" N Latitude, 119°49'27" W Longitude) at an average depth of 27 m (87 ft) below MLLW. The outfall location is shown on Attachment "A".
11. Natural oil seepages occur in the Pacific Ocean in the vicinity of the discharge.

12. The Regional Board and EPA classify this discharge as a major discharge ( $> 1.0$  MGD).
13. The State Water Resources Control Board (State Board) revised the Water Quality Control Plan, Ocean Waters of California (Ocean Plan) on March 22, 1990. It is updated periodically. The Ocean Plan contains water quality objectives and other requirements governing discharge to the Pacific Ocean.
14. The Water Quality Control Plan, Central Coastal Basin (Basin Plan) was adopted by the Regional Board on November 17, 1989, and approved by the State Board on August 16, 1990. 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.
15. 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;
  - c. Aesthetic enjoyment;
  - d. Commercial and sport fishing;
  - e. Mariculture;
  - f. Rare and Endangered Species;
  - g. Marine Habitat, and
  - h. Shellfish harvesting.

16. The shellfishing beneficial use (see finding 15) exists where ever 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.

The California Department of Health Services has established an emergency safety zone (prohibitive zone) for commercial shellfish harvesting within a one-mile radius of the discharge point.

17. This Order and Permit may be modified by the Regional Board and EPA to address changes in Goleta WWTP 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 modification may include but is not limited to, the implementation of appropriate conditions or limitations based on newly available information or new State water quality standards.
18. Pursuant to 40 CFR 125.60(b)(2) and 125.63(b) of the 301(h) regulations dated July 1, 1993, staff of the Regional Board tentatively determined by letter dated September 12, 1994 that the proposed modified discharge, as described in the Discharger's 301(h) application, would comply with applicable State laws, including water quality standards, and would not result in additional treatment, pollution control, or other requirements on any other point or nonpoint source.
19. Pursuant to 40 CFR 125.59(b)(3) of the 301(h) regulations dated July 1, 1993, the 301(h) modified permit must comply with the Endangered Species Act, 16 U.S.C. 1531 *et seq.* By letter dated September 20, 1994, the U.S. Fish and Wildlife Service (USFWS) indicated that the proposed 301(h) discharge is not expected to adversely affect the snowy plover (Charadrius alexandrinus nivosus) and the brown pelican (Pelecanus occidentalis), local threatened and endangered species, respectively. By letter dated February 14, 1990, the National Marine Fisheries Service (NMFS) indicated that the proposed 301(h) discharge is not expected to adversely affect the California gray whale (Eschrichtius robustus), formerly listed as an endangered species.
20. Pursuant to 40 CFR 125.59(b)(3) of the 301(h) regulations dated July 1, 1992, the 301(h) modified permit must comply with title III of the Marine Protection, Research and Sanctuaries Act, 16 U.S.C. 1431 *et seq.* By letter dated April 4, 1990, the National Oceanic and Atmospheric Administration (NOAA) stated that the proposed discharge is not to an area which has been deemed a National Marine Sanctuary or National Estuarine Research Reserve.

21. The Discharger 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 Discharger on May 1, 1992.
22. The requirements in this Order and Permit are based on the Ocean Plan, Basin Plan, other federal and State plans and policies, current plant performance, and best engineering judgment. Critical (minimum) initial dilution for determining compliance with Ocean Plan, Chapter IV, Table B toxic materials objectives is 122:1. Critical initial dilutions for determining compliance with federal water quality criteria (where applied) are calculated based on guidance in the Revised Section 301(h) Technical Support Document (EPA 430/9-82-011, 1982). Critical initial dilutions for determining compliance with federal water quality criteria for the protection of aquatic life and the protection of human health are 55:1 and 170:1, respectively.
23. The issuance of waste discharge requirements for this discharge is exempt from the provisions of the California Environmental Quality Act (CEQA; Public Resources Code, Section 21100, et seq.), in accordance with section 13389 of the California Water Code.
24. 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 CWA (as amended or as supplemented by implementing guidelines and regulations) and with any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisance. This Order shall serve as a NPDES permit pursuant to section 402 of the CWA. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.
25. On May 7, 1996, the Regional Board and EPA notified the Discharger 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.
26. In a public hearing on July 26, 1996, the Regional Board and EPA heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to authority in section 13377 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 Plant providing they comply with the following:

(NOTE: General permit conditions, definitions and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985.)

#### 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.
2. Bypass of the treatment facility and discharge of any wastes not meeting the discharge specifications of this Order and Permit is prohibited.
3. Discharge of any wastes including overflow, bypass, and seepage from transport, treatment or disposal systems is prohibited.

#### B. EFFLUENT LIMITATIONS

1. The Discharger shall, as a 30-day average, remove at least 30% of the biochemical oxygen demanding materials (BOD<sub>5</sub>) from the influent stream before discharging wastewater to the ocean. The Discharger shall, as a 30-day average, remove at least 75% of the suspended solids (total non-filterable 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:

Parameter <sup>(1)</sup>	Units	Monthly (30-day) Average	Weekly (7-day) Average	Maximum at any time
BOD <sub>5</sub> (20°C)	mg/L	98	--	150
	lbs/day	6,240	--	9,560
Suspended Solids	mg/L	65	--	100
	lbs/day	4,010	--	6,370

2. Effluent concentrations shall not exceed the following limitations:

a. **TABLE A - MAJOR WASTEWATER CONSTITUENTS AND PROPERTIES**

Parameter <sup>(1)</sup>	Units	Monthly (30-day) Average	Weekly (7-day) Average	Maximum at any time
Grease and Oil	mg/L	25	40	75
	lbs/day	1,590	2,550	4,780
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	Within limits of 6.0 to 9.0 at all times.			
Acute Toxicity	TUa	1.5	2.0	2.5

b. **TABLE B - OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE**

Parameter <sup>(1,2)</sup>	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Chromium	µg/L	246	984	2,460
(Hexavalent) <sup>(3)</sup>	lbs/day	15.7	62.7	157
Copper	µg/L	125	1,230	3,450
	lbs/day	7.96	78.4	220
Lead	µg/L	246	984	2,460
	lbs/day	15.7	62.7	157
Mercury	µg/L	4.86	19.6	49.1
	lbs/day	0.310	1.25	3.13
Nickel	µg/L	615	2,460	6,150
	lbs/day	39.2	157	392
Silver	µg/L	66.6	325	841
	lbs/day	4.24	20.7	53.6
Total Chlorine	mg/L	0.246	0.984	7.38
Residual	lbs/day	15.7	62.7	470
Ammonia (expressed as nitrogen)	mg/L	73.8	295	738
	lbs/day	4,702	18,800	47,000
Chronic Toxicity	TUc	--	123	--

Parameter <sup>(1,2)</sup>	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Chlorinated Phenolics	mg/L	0.123	0.492	1.23
	lbs/day	7.84	31.3	78.4
Endosulfan <sup>(4)</sup>	µg/L	1.11	2.21	3.32
	lbs/day	0.0707	0.141	0.212
Endrin	µg/L	0.246	0.492	0.738
	bs/day	0.0157	0.0313	0.0470
HCH <sup>(5)</sup>	µg/L	0.492	0.984	1.48
	lbs/day	0.0313	0.0627	0.0943
Radioactivity	pci/L	Not to exceed limits specified in Title 17, Chapter 5, Subchapter 4, Group 3, Article 3 Section 30269 of the California Code of Regulations.		

c. TABLE B - OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH - CARCINOGENS

Parameter <sup>(1,2)</sup>	Units	30-day Average
Acrylonitrile	µg/L	12.3
	lbs/day	0.784
Aldrin	ng/L	2.71
	lbs/day	0.000173
Benzidine	ng/L	8.49
	lbs/day	0.000541
Beryllium	µg/L	4.06
	lbs/day	0.259
Bis(2-chloroethyl)ether	µg/L	5.54
	lbs/day	0.353
Chlordane <sup>(6)</sup>	ng/L	2.83
	lbs/day	0.000180
DDT <sup>(7)</sup>	ng/L	20.9
	lbs/day	0.00133
3,3'-dichlorobenzene	µg/L	0.996
	lbs/day	0.0635
dieldrin	ng/L	4.92
	lbs/day	0.000313
1,2-diphenylhydrazine	µg/L	19.7
	lbs/day	1.25
Heptachlor <sup>(8)</sup>	µg/L	0.0886
	lbs/day	0.00573
Hexachlorobenzene	µg/L	0.0258
	lbs/day	0.00191
PAHs <sup>(9)</sup>	µg/L	1.08
	lbs/day	0.0688
PCBs <sup>(10)</sup>	ng/L	2.34
	lbs/day	0.000149
TCDD equivalents <sup>(11)</sup>	pg/L	0.480
	lbs/day	3.06 x 10 <sup>-8</sup>

Parameter <sup>(1,2)</sup>	Units	30-day Average
Toxaphene	ng/L	25.8
	lbs/day	0.00165
2,4,6-trichlorophenol	µg/L	35.7
	lbs/day	2.27

- d. 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 MPN/100 mL and no sample shall exceed 16,000 MPN/100 mL. The density of Total Coliform organisms shall also be monitored during chlorine contact tank maintenance procedures (see section II, Effluent Monitoring, of the Monitoring and Reporting Program). If any one sample exceeds 16,000 MPN/100 ml, then the Discharger shall notify within 48 hours the State Department of Health Services, the Regional Board and any certified commercial shellfish growers in the vicinity of the outfall.
- e. If the density of Total Coliform organisms exceeds the limit specified in Item d., above, for three consecutive months, the Discharger shall submit a technical engineering report, in addition to monthly monitoring reports, for the approval of the Executive Officer. The report shall include, but not be limited to, measures to identify sources of the exceedances, if not already identified, and measures to correct the deficiencies. The Discharger shall submit the report within 30 days of the end of the third month of violating the limitation.
- f. 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.
- g. During any 24-hour period, the effluent mass emission rate shall not exceed the "Maximum Allowable Daily Mass Emission Rate."
- h. The Discharger shall report violations of the "Instantaneous Maximum" or "Maximum Allowable Daily Mass Emission Rate" to the Regional Board within 24-hours of discovery.
- i. During any six-month period, the effluent mass emission rate shall not exceed the "Maximum Allowable 6-Month Median Mass Emission Rate."
3. Discharged effluent must be essentially free of:
  - a. Material that is floatable or will become floatable upon discharge.
  - b. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
  - c. Substances that will accumulate to toxic levels in marine waters, sediments or biota.
  - d. Substances that significantly decrease the natural light to benthic communities.
  - e. Materials that result in aesthetically undesirable discoloration of the ocean surface.

ENDNOTES (Effluent Limitations)

- [1] Mass emissions rate limitations are based on the projected (1999) annual monthly average flow of 7.64 MGD (0.355 m<sup>3</sup>/sec).
- [2] Based on Ocean Plan, Chapter IV, 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] Dischargers 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 shall mean the sum of heptachlor and heptachlor epoxide.
- [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 Equivalent 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

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 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 (MPN/100 mL)	Fecal Coliform Organisms (MPN/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.

- 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 (MPN/100 mL)
Median	70
90% of samples	230

3. The Discharger shall conduct a bacterial assessment to identify the source(s), if Receiving Water Limitations, C.1 or C.2 are consistently exceeded, or the following enterococcus densities are exceeded:

Parameter Applicable	Enterococcus Organisms (MPN/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.

4. Floating particles and grease and oil to be visible on the ocean surface.
5. Aesthetically undesirable discoloration of the ocean surface.
6. Significant reduction in the transmittance of natural light in ocean waters at any point outside of the zone of initial dilution.
7. Change in the rate of deposition and characteristics of inert solids in ocean sediments such that benthic communities are degraded.
8. The dissolved oxygen concentration outside the zone of initial dilution to fall below 5.0 mg/L, or to be depressed more than 10 percent from that which occurs naturally.
9. The pH outside the zone of initial dilution to be depressed below 7.0, raised above 8.5, or changed more than 0.2 units from that which occurs naturally.
10. The dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.
11. In marine sediments, the concentration of toxic materials listed in the Ocean Plan, Chapter IV, Table B, to be increased above levels which would degrade indigenous biota.
12. The concentration of organic materials in marine sediments to increase above levels which would degrade indigenous biota.
13. Objectionable aquatic growths or degradation of indigenous biota, as a result of nutrient materials.
14. Degradation of marine communities, including vertebrate, invertebrate, and plant species.
15. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health.
16. Alteration of the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption.
17. Degradation of marine life due to radioactive waste.
18. Temperature of the receiving water to impair beneficial uses.

#### D. PRETREATMENT REQUIREMENTS

1. The Discharger 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 Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger 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 Discharger 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. 1351 et seq.). The Discharger shall implement and enforce its Approved POTW Pretreatment Program.

The Discharger'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.

2. The Discharger 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 Discharger 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.
3. The Discharger 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).

**E. SLUDGE REQUIREMENTS**

The Discharger shall be responsible for meeting all applicable sludge requirements contained in 40 CFR 257, 258, 501, and 503, as appropriate to the POTW's sludge disposal/reuse method(s), including monitoring, recordkeeping, and reporting requirements. The Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the EPA, or other appropriate parties, as provided in the CWA.

**F. GENERAL REQUIREMENTS**

The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board, as required by the CWA, 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.

**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. 85-69, adopted by the Regional Board on September 6, 1985. Order No. 85-69 is hereby rescinded.
3. The Discharger shall comply with the attached "Monitoring and Reporting Program No. 96-21," as ordered by the Executive Officer and the Regional Administrator.
4. The Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for the National Pollutant Discharge Elimination System," dated January 1985, except for 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, and the Discharger 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.

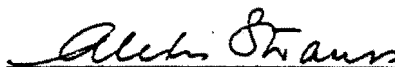
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7. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the succeeding owner or operator of the existence of this Order and Permit by letter, a copy of which shall be forwarded to 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. This Order and Permit may be modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR 122.44, 122.62 - 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 Discharger 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.

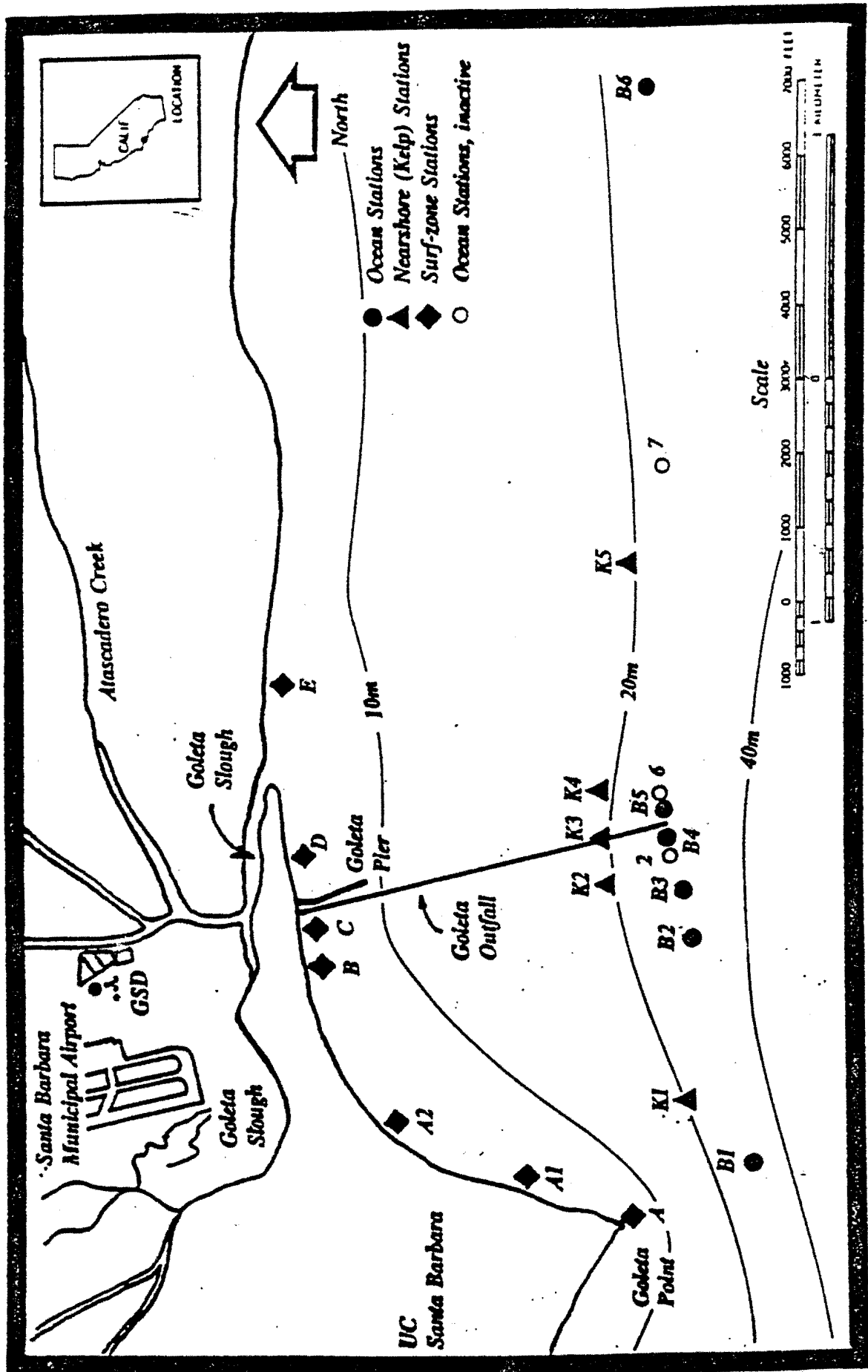
This certifies that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 26, 1996, and of an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on JUL 26 1996.



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



ATTACHMENT A

ENVIRONMENTAL PROTECTION AGENCY - REGION IX  
AND  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
MONITORING AND REPORTING PROGRAM NO. 96-21  
FOR  
GOLETA SANITARY DISTRICT  
GOLETA WASTEWATER TREATMENT PLANT  
SANTA BARBARA COUNTY

Under 40 CFR 125.62, the monitoring program for a discharger receiving a 301(h) modified National Pollutant Discharge Elimination System (NPDES) permit shall:

- Document short and long-term effects of the discharge on receiving waters, sediments, biota, and on beneficial uses of the receiving water;
- Determine compliance with NPDES permit items and conditions; and
- Assess the effectiveness of industrial pretreatment and toxics control programs.

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

All monitoring program samples and measurements should be collected and analyzed according to procedures detailed in Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987). Analytical procedures found in Analytical Methods for U.S. EPA Priority Pollutants and 301(h) Pesticides in Estuarine and Marine Sediments (EPA 503/6-90-004, 1986), and Bioaccumulation Monitoring Guidance: 4. Analytical Methods for U.S. EPA Priority Pollutants and 301(h) Pesticides in Tissues from Estuarine and Marine Organisms (Terra Tech, Inc., 1986) should be used to measure priority pollutants in marine sediment and tissue samples, respectively.

After collection and analysis of the first year's data, the Discharger shall submit a detailed annual report evaluating program scope and methodologies. Subjects to address include:

- Priority pollutant analyses and method detection limits;
- Sampling methodologies and QA/QC procedures;
- Monitoring program cost effectiveness; and
- Achievement of monitoring program objectives.

Recommendations and scientific rationale for modifications which may increase the effectiveness of the program should be presented in the first annual report. Subsequent annual reports may include such analyses, if appropriate. These monitoring data will be used by EPA to assess whether the 301(h) modified NPDES permit should be terminated or renewed. The Regional Board will use the monitoring data to determine compliance with Water Quality Control Plan, Ocean Waters of California (Ocean Plan) and Water Quality Control Plan, Central Coast Basin (Basin Plan) requirements.

To the extent practicable, all components of the monitoring program (e.g., water column, benthic sediment and biota, etc.) with the same monitoring schedule should be sampled concurrently.

## I. INFLUENT MONITORING

For Influent Monitoring endnotes, see page 27.

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards;
- Assess treatment plant performance; and
- Assess pretreatment program effectiveness.

Sampling stations shall be established at each point of inflow to the wastewater treatment plant and shall be located upstream of any in-plant return flows, and where representative influent samples can be obtained. The date

and time of sampling (as appropriate) shall be reported with the determined analytical values. Reported values shall be in units consistent with Ocean Plan units. The influent monitoring program is as follows:

#### MISCELLANEOUS PARAMETERS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Inflow	Recorder	Continuous
Mean Daily Flow	Recorder	Calculated
Maximum Daily Flow	Recorder	Calculated
BOD <sub>5</sub> (20°C)	24-hr Composite	3 days/week <sup>(2)</sup>

#### TABLE A - MAJOR WASTEWATER CONSTITUENTS AND PROPERTIES

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Grease and Oil	Grab	Weekly <sup>(2)</sup>
Suspended Solids	24-hr Composite	5 days/week <sup>(2)</sup>
pH	Grab	Weekly <sup>(2)</sup>

#### TABLE B - OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Arsenic	24-hr Composite	Monthly
Cadmium	24-hr Composite	"
Chromium (Hexavalent) <sup>(3)</sup>	24-hr Composite	"
Copper	24-hr Composite	"
Lead	24-hr Composite	"
Mercury	24-hr Composite	"
Nickel	24-hr Composite	"
Selenium	24-hr Composite	Annually (Oct)
Silver	24-hr Composite	Monthly
Zinc	24-hr Composite	"
Cyanide	Grab	Annually (Oct)
Phenolic Compounds (non-chlorinated)	Grab	"
Chlorinated Phenolics	Grab	"

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Endosulfan <sup>(4)</sup>	24-hr Composite	Annually (Oct)
Endrin	24-hr Composite	"
HCH <sup>(5)</sup>	24-hr Composite	"
Radioactivity	"	"

TABLE B - OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH -- NONCARCINOGENS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
acrolein	Grab	Annually (Oct)
antimony	24-hr Composite	"
bis(2-chloroethoxy)methane	24-hr Composite	"
bis(2-chloroisopropyl)ether	24-hr Composite	"
chlorobenzene	Grab	"
chromium (III) <sup>(3)</sup>	24-hr Composite	"
di-n-butyl phthalate	24-hr Composite	"
dichlorobenzenes <sup>(6)</sup>	24-hr Composite	"
1,1-dichloroethylene	Grab	"
diethyl phthalate	24-hr Composite	"
dimethyl phthalate	24-hr Composite	"
4,6-dinitro-2-methylphenol	24-hr Composite	"
2,4-dinitrophenol	24-hr Composite	"
ethylbenzene	Grab	"
fluoranthene	24-hr Composite	"
hexachlorocyclopentadiene	24-hr Composite	"
isophorone	24-hr Composite	"
nitrobenzene	24-hr Composite	"
thallium	24-hr Composite	"
toluene	Grab	"
1,1,2,2-tetrachloroethane	Grab	"
tributyltin	24-hr Composite	"
1,1,1-trichloroethane	Grab	Annually (Oct)
1,1,2-trichloroethane	Grab	"



TABLE B - OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH - CARCINOGENS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
acrylonitrile	Grab	Annually (Oct)
aldrin	24-hr Composite	"
benzene	Grab	"
benzidine	24-hr Composite	"
beryllium	24-hr Composite	"
bis(2-chloroethyl)ether	24-hr Composite	"
bis(2-ethylhexyl)phthalate	24-hr Composite	"
carbon tetrachloride	Grab	"
chlordane <sup>(7)</sup>	24-hr Composite	"
chloroform	Grab	"
DDT <sup>(8)</sup>	24-hr Composite	"
1,4-dichlorobenzene	24-hr Composite	"
3,3-dichlorobenzidine	24-hr Composite	"
1,2-dichloroethane	Grab	"
dichloromethane	Grab	"
1,3-dichloropropene	Grab	"
dieldrin	24-hr Composite	"
2,4-dinitrotoluene	24-hr Composite	"
1,2-diphenylhydrazine	24-hr Composite	"
halomethanes <sup>(9)</sup>	Grab	"
heptachlor <sup>(10)</sup>	24-hr Composite	"
hexachlorobenzene	24-hr Composite	"
hexachlorobutadiene	24-hr Composite	"
hexachloroethane	24-hr Composite	"
N-nitrosodimethylamine	24-hr Composite	"
N-nitrosodiphenylamine	24-hr Composite	"
PAHs <sup>(11)</sup>	24-hr Composite	"
PCBs <sup>(12)</sup>	24-hr Composite	"
TCDD equivalents <sup>(13,14)</sup>	24-hr Composite	"
tetrachloroethylene	Grab	"
toxaphene	24-hr Composite	"
trichloroethylene	Grab	"
2,4,6-trichlorophenol	24-hr Composite	"
vinyl chloride	Grab	"
Remaining Priority Pollutants <sup>(15)</sup> (excluding asbestos)	Grab/24-hr Composite <sup>(16)</sup>	Annually <sup>(17)</sup> (Oct)

## II. EFFLUENT MONITORING

For Effluent Monitoring endnotes, see page 27.

Effluent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards;
- Identify operational problems and improve plant performance; and
- Provide information on waste characteristics and flows for use in interpreting water quality and biological data.

An effluent sampling station shall be located downstream of any inplant return flows or disinfection units, where representative samples of the effluent can be obtained. The date and time of sampling (as appropriate) shall be reported with the determined analytical values. Reported values shall be in units consistent with Ocean Plan units. As required by the Ocean Plan, discharges between 1 and 10 million gallons per day (MGD) must scan Chapter IV, Table B toxic materials annually (minimum). The effluent monitoring program is as follows:

#### MISCELLANEOUS PARAMETERS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Flow	Recorder	Continuous
Mean Daily Flow	Recorder	Calculated
Maximum Daily Flow	Recorder	Calculated
Temperature	Grab	5 days/week <sup>(2)</sup>
BOD <sub>5</sub> (20°C)	24-hr Composite	5 days/week <sup>(2)</sup>
Total Coliform	Grab	5 days/week <sup>(2)</sup>
Fecal Coliform	Grab	5 days/week <sup>(2)</sup>
Enterococcus	Grab	5 days/week <sup>(2)</sup>
Chlorine Usage	Recorded	Daily
Total Chlorine Residual (Chlorine Contact Tank)	Grab	Daily

TABLE A - MAJOR WASTEWATER CONSTITUENTS AND PROPERTIES

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Grease and Oil	Grab	2 days/week <sup>(2)</sup>
Suspended Solids	24-hr Composite	5 days/week <sup>(2)</sup>
Settleable Solids	Grab	5 days/week <sup>(2)</sup>
Turbidity	Grab	5 days/week <sup>(2)</sup>
pH	Grab	5 days/week <sup>(2)</sup>
Acute Toxicity <sup>(18)</sup>	24-hr Composite	Monthly

TABLE B - OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
Arsenic	24-hr Composite	Monthly
Cadmium	24-hr Composite	"
Chromium (Hexavalent) <sup>(3)</sup>	24-hr Composite	"
Copper	24-hr Composite	"
Lead	24-hr Composite	"
Mercury	24-hr Composite	"
Nickel	24-hr Composite	"
Selenium	24-hr Composite	Annually (Oct)
Silver	24-hr Composite	Monthly

Zinc	24-hr Composite	"
Cyanide	Grab	Annually (Oct)
Total Chlorine Residual (Final Effluent)	Continuous	Continually
Ammonia (expressed as nitrogen)	Grab	Monthly
Chronic toxicity <sup>(18)</sup>	24-hr Composite	Quarterly (Jan/Apr/Jul/Oct)
Phenolic Compounds (non-chlorinated)	Grab	Annually (Oct)
Chlorinated Phenolics	Grab	"
Endosulfan <sup>(4)</sup>	24-hr Composite	"
Endrin	24-hr Composite	"
HCH <sup>(5)</sup>	24-hr Composite	"

TABLE B - OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH -- NONCARCINOGENS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
acrolein	Grab	Annually (Oct)
antimony	24-hr Composite	"
bis(2-chloroethoxy)methane	24-hr Composite	"
bis(2-chloroisopropyl)ether	24-hr Composite	"
chlorobenzene	Grab	"
chromium (III) <sup>(3)</sup>	24-hr Composite	"
di-n-butyl phthalate	24-hr Composite	"
dichlorobenzenes <sup>(6)</sup>	24-hr Composite	"
1,1-dichloroethylene	Grab	"
diethyl phthalate	24-hr Composite	"
dimethyl phthalate	24-hr Composite	"
4,6-dinitro-2-methylphenol	24-hr Composite	"
2,4-dinitrophenol	24-hr Composite	"
ethylbenzene	Grab	"
fluoranthene	24-hr Composite	"
hexachlorocyclopentadiene	24-hr Composite	"
isophorone	24-hr Composite	"
nitrobenzene	24-hr Composite	"
thallium	24-hr Composite	"
toluene	Grab	"
1,1,2,2-tetrachloroethane	Grab	"
tributyltin	24-hr Composite	"
1,1,1-trichloroethane	Grab	"
1,1,2-trichloroethane	Grab	"

TABLE B - OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH - CARCINOGENS

Parameter	Sample Type <sup>(1)</sup>	Minimum Frequency Sampling/Analysis
acrylonitrile	Grab	Annually (Oct)
aldrin	24-hr Composite	"
benzene	Grab	"
benzidine	24-hr Composite	"
beryllium	24-hr Composite	"
bis(2-chloroethyl)ether	24-hr Composite	"
bis(2-ethylhexyl)phthalate	24-hr Composite	"
carbon tetrachloride	Grab	"
chlordane <sup>(7)</sup>	24-hr Composite	"
chloroform	Grab	"
DDT <sup>(8)</sup>	24-hr Composite	"
1,4-dichlorobenzene	24-hr Composite	"
3,3-dichlorobenzidine	24-hr Composite	"
1,2-dichloroethane	Grab	"
dichloromethane	Grab	"
1,3-dichloropropene	Grab	"
dieldrin	24-hr Composite	"
2,4-dinitrotoluene	24-hr Composite	"
1,2-diphenylhydrazine	24-hr Composite	"
halomethanes <sup>(9)</sup>	Grab	"
heptachlor <sup>(10)</sup>	24-hr Composite	"
hexachlorobenzene	24-hr Composite	"
hexachlorobutadiene	24-hr Composite	"
hexachloroethane	24-hr Composite	"
N-nitrosodimethylamine	24-hr Composite	"
N-nitrosodiphenylamine	24-hr Composite	Annually (Oct)
PAHs <sup>(11)</sup>	24-hr Composite	"
PCBs <sup>(12)</sup>	24-hr Composite	"
TCDD equivalents <sup>(13,14)</sup>	24-hr Composite	"
tetrachloroethylene	Grab	"
toxaphene	24-hr Composite	"
trichloroethylene	Grab	"
2,4,6-trichlorophenol	24-hr Composite	"
vinyl chloride	Grab	"
Remaining Priority Pollutants <sup>(15)</sup> (excluding asbestos)	Grab/24-hr Composite <sup>(16)</sup>	Annually <sup>(17)</sup> (Oct)

### III. SLUDGE MONITORING

Residual solids (sludge) monitoring is required to:

- Assess the effectiveness of the pretreatment program;
- Maintain a record of the volume of solids generated and disposal sites used;
- Evaluate the character of sludge to demonstrate compliance with appropriate sludge disposal/reuse requirements.

Sludge resulting from the Discharger's treatment processes and ready for ultimate disposal/reuse shall be sampled and analyzed as specified below. If wet weather conditions do not allow for sample collection, the Discharger shall notify the Regional Board and EPA, and arrange for the implementation of an alternative sampling schedule at the earliest possible time. Twelve (12) discrete samples shall be collected at separate locations in the drying bed area that is next scheduled for disposal. These 12 samples shall be composited to form one (1) sample for parameter analysis. The sludge monitoring program is as follows:

Parameter	Units	Minimum Frequency Sampling/Analysis
Quantity Removed	Tons or yd <sup>3</sup> and Monthly Disposal Location	(Jan/Apr/Jul/Oct)
Pathogen Density	--	per 40 CFR 503
Vector Attraction	--	"
Moisture	--	Quarterly
Arsenic	mg/kg	(Jan/Apr/Jul/Oct)
Cadmium	mg/kg	"
Chromium (Hexavalent) <sup>(3)</sup>	mg/kg	"
Copper	mg/kg	"
Lead	mg/kg	"
Mercury	mg/kg	"
Molybdenum	mg/kg	"
Nickel	mg/kg	"
Selenium	mg/kg	"
Zinc	mg/kg	"
Total Kjeldahl Nitrogen	mg/kg	"
Ammonia (expressed (as nitrogen)	mg/kg	"
Nitrate (expressed (as nitrogen)	mg/kg	"
Total Phosphorus	mg/kg	"
pH	mg/kg	Annually (Oct)
Grease and Oil	mg/kg	"
Priority Pollutants <sup>(9)</sup> (excluding asbestos)	mg/kg	"

#### IV. RECEIVING WATER MONITORING

Monitoring is conducted to verify predictions in the Technical Review Report (TRR) and Tentative Decision Document (TDD) and to assess compliance with 301(h) permit limitations and water quality standards. Receiving water monitoring must document water quality at the zone of initial dilution (ZID) boundary, reference stations, and areas beyond the ZID where discharge impacts might reasonably be expected. Monitoring must reflect conditions during all critical environmental periods.

##### A. MONITORING STATIONS AND LOCATIONS

Monitoring stations (see Attachment "A") have been located to assess the short and long-term environmental impacts of the discharge on the receiving water, benthic sediment, and biota in the vicinity of the outfall. Results of the monitoring program indicate that net current movement in the outfall area is upcoast (i.e., west) of the outfall. Monitoring stations are located on the assumption of net upcoast current direction. The Discharger shall locate nearshore, ocean, plume, and trawl stations using the Trimble Differential Global Positioning System model SV-six.

Surf Zone Stations

- A Surf, Goleta Point
- A1 Surf, 500 meters downcoast (NE) of Goleta Point
- A2 Surf, 1000 meters west of outfall line
- B Surf, 300 meters west of outfall line
- C Surf, outfall line
- D Surf, 300 meters east of outfall line
- E Surf, 1000 meters east of outfall line

Nearshore Stations

- K1 34°24'37" N 119°50'12" W 1200 meters west of outfall, at the contemporary and/or historical offshore edge of the kelp bed (defined as 60 ft depth contour)
- K2 34°24'55" N 119°49'49" W 200 meters west of outfall, at the offshore edge of the kelp bed
- K3 34°24'55" N 119°49'35" W Above outfall at the contemporary offshore edge of the kelp bed
- K4 34°24'54" N 119°49'24" W 200 meters east of outfall at the offshore edge of the kelp bed
- K5 34°24'50" N 119°48'56" W 1200 meters east of outfall, at the offshore edge of the kelp bed

Ocean Stations (Water Column and Benthic Stations)

- B1 34°24'17" N 119°50'31" W 1500 meters west and at the same depth as the diffuser mid-point; formerly station 1
- B2 34°24'25" N 119°49'72" W 500 meters west and at the same depth as the diffuser mid-point
- B3 34°24'27" N 119°49'55" W 250 meters west and at the same depth as the diffuser mid-point
- 2 100 meters west and at the same depth as the diffuser midpoint (inactive)
- B4 34°24'36" N 119°49'36" W 25 meters west and at the same depth as the diffuser mid-point (ZID boundary); formerly station 3
- 4 Less than 7 meters west and at the same depth as the diffuser mid-point (inactive)
- B5 34°24'40" N 119°49'29" W 25 meters east and at the same depth as the diffuser mid-point (ZID boundary); formerly station 5
- 6 100 meters east and at the same depth as the diffuser midpoint (inactive)
- 7 1500 meters east and at the same depth as the diffuser mid-point (inactive)
- B6 34°24'45" N 119°47'54" W 3000 meters east and at the same depth as the diffuser mid-point (reference)

Plume Stations (Water Column Stations)

WC-ZID 25 meters from the outfall in the wastewater plume

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

Plume location shall be determined at the time of sampling by a combination of temperature-salinity profiles and light transmittance readings, and/or by drogue tracking. Drogue tracking is necessary where profiles fail to positively identify plume direction. The drogue shall be placed at the center of the diffuser, in the effluent plume and allowed to move with the wastewater field to the two plume stations. Plume thickness shall be determined and samples taken mid-depth in the plume. If plume depth/thickness cannot be determined, the plume sample shall be taken 3 meters below the thermocline. Reference samples shall be obtained at the same depth at station B6. All plume locating data and thickness shall be reported and discussed in the quarterly reports.

#### Trawl Stations

- TB3 Begin trawl at ocean station B3, first trawl heading west (away from station) at depth isobath) of diffuser mid-point (approximately 25 meters); formerly station T3
- TB6 Begin trawl at ocean station B6, first trawl heading east (away from station) at depth (isobath) of diffuser mid-point (approximately 25 meters) (reference); formerly station T7

### B. SURF ZONE MONITORING

For Surf Zone Monitoring endnotes, see page 32.

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

Monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), sea state (height of swells and waves), longshore current (e.g., direction), tidal condition (high, slack, low), water discoloration, floating grease and oil, turbidity, odor, and materials of sewerage origin in the water or on the beach shall be recorded and reported. Surf zone samples shall be collected as far seaward as possible within the surf zone.

All surf zone stations shall be sampled on different days in successive weeks so that each day of the 7-day week is represented at each station. All surf zone stations shall be monitored as follows:

Parameter	Units	Sample Type <sup>(20)</sup>	Minimum Frequency Sampling/Analysis
Total Coliform	MPN/100 mL	Surface Grab	Weekly
Fecal Coliform	MPN/100 mL	Surface Grab	"
Enterococcus	MPN/100 mL	Surface Grab	"
Temperature	°C	Surface Grab	"

### C. NEARSHORE MONITORING

For Nearshore Monitoring endnotes, see page 32.

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

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

Parameter	Units	Sample Location <sup>(20)</sup>	Minimum Frequency Sampling/Analysis
Total Coliform	MPN/100 mL	1.0 m below surface, mid-depth, 1.0 m above bottom	Quarterly
Fecal Coliform	MPN/100 mL	"	Quarterly
Enterococcus	MPN/100 mL	"	Quarterly
Temperature	°C	"	Quarterly
Water Depth	m	"	Quarterly

#### D. OCEAN MONITORING

For Ocean Monitoring endnotes, see page 32.

Offshore monitoring of the water column is conducted at ocean stations B1, B2, B3, B4, B5, and B6, and plume stations WC-ZID and WC-100m to determine compliance with water quality standards and to document any water quality impacts that might result from the waste discharge within the ZID and beyond the ZID, as compared to water quality at the reference station (B6).

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

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

Parameter	Units	Sample Location <sup>(20)</sup>	Minimum Frequency Sampling/Analysis
Total Coliform	MPN/100 mL	1.0 m below surface, mid-depth and 1.0 m above bottom	Quarterly
Fecal Coliform	MPN/100 mL	"	Quarterly
Enterococcus	MPN/100 mL	"	Quarterly
Floating Particulates	Visual	Surface	Quarterly
Grease and Oil	Visual	"	Quarterly
Discoloration	Visual	"	Quarterly
Natural light <sup>(21)</sup>	light transmissivity and/or total irradiance	Entire water column	Quarterly
Dissolved Oxygen	mg/L	"	Quarterly
pH	units	"	Quarterly
Salinity	ppt	"	Quarterly
Temperature	°C	"	Quarterly



## V. BENTHIC MONITORING

### A. BENTHIC SEDIMENT MONITORING

For Benthic Sediment Monitoring endnotes, see page 32.

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

#### MISCELLANEOUS PARAMETERS

Parameter	Units
Sediment particle size <sup>(22)</sup>	phi size (% volume)
Grease and Oil	µg/g
Total Kjeldahl Nitrogen	µg/g
Total Organic Carbon	µg/g
Acid Volatile Sulfide <sup>(23)</sup>	µg/g

#### ELEMENTS

Parameter	Units	Target Detection Level
Aluminum	µg/g	1500
Antimony	µg/g	0.2
Arsenic	µg/g	1.5
Cadmium	µg/g	0.05
Chromium <sup>(3)</sup>	µg/g	5.0
Copper	µg/g	5.0
Iron	µg/g	500
Lead	µg/g	1.0
Mercury	µg/g	0.01
Nickel	µg/g	1.0
Selenium	µg/g	0.1
Silver	µg/g	0.01
Tin	µg/g	0.1
Zinc	µg/g	2.0

#### CHLORINATED ORGANIC PESTICIDES

Parameter	Units	Target Detection Level
Aldrin	ng/g	1.0
Chlordane <sup>(7)</sup>	ng/g	1.0
DDT <sup>(8)</sup>	ng/g	1.0
Dieldrin	ng/g	1.0
Heptachlor <sup>(10)</sup>	ng/g	1.0

Hexachlorobenzene	ng/g	1.0
HCH <sup>(5)</sup>	ng/g	1.0
Mirex	ng/g	1.0

#### POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Parameter	Units	Target Detection Level
PAHs <sup>(11)</sup>	ng/g	10
1-methylnaphthalene	ng/g	10
1-methylphenanthrene	ng/g	10
2-methylnaphthalene	ng/g	10
2,6-dimethylnaphthalene	ng/g	10
1,6,7-trimethylnaphthalene	ng/g	10
Acenaphthene	ng/g	10
Biphenyl	ng/g	10
Naphthalene	ng/g	10
Benzo(a)anthracene	ng/g	10
Benzo(b)fluoranthene	ng/g	10
Benzo(e)pyrene	ng/g	10
Benzo(ghi)perylene	ng/g	10
Fluoranthene	ng/g	10
Perylene	ng/g	10

#### POLYCHLORINATED BIPHENYLS (PCBs)

Parameter	Units	Target Detection Level
PCBs <sup>(12)</sup>	ng/g	1.0

Sediment samples analyzed for parameters other than organic priority pollutants shall be placed in air-tight polyethylene or glass containers. Separate subsamples for dissolved sulfides analysis<sup>(23)</sup> shall be placed in small (100-200 mL) wide-mouth bottles and preserved with zinc acetate. The preservative must be carefully mixed with the sediment sample. Sediment samples collected for organic priority pollutant analysis should be placed in air-tight glass containers. All containers should be completely filled by the sediment sample and air bubbles should not be trapped in the containers. Samples shall be stored immediately at 2 to 4°C and not frozen or dried. Total sample storage time shall not exceed two (2) weeks.

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

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

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

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

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

The annual report on benthic monitoring shall include a complete discussion of benthic sediment survey results and (possible) influence of the discharge on sediment conditions in the study area. The discussion should be based on graphical, tabular, and/or appropriate<sup>(24)</sup> statistical analyses (see section VIII, Data Analysis, p. 23) of spatial and temporal patterns observed for raw and normalized sediment parameters. The annual report should also present an analysis of natural variation in sediment conditions, etc., which could influence the validity of study results. The Discharger's sediment results may also be compared with the results of other applicable studies, numeric protective levels, etc., as appropriate. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

### B. BENTHIC INFAUNA MONITORING

For Benthic Infauna Monitoring endnotes, see page 32.

Annually (October), benthic infauna monitoring is conducted at stations B1, B2, B3, B4, B5, and B6 to assess the temporal and spatial status of local benthic communities in relation to the outfall. Sampling shall be conducted as follows:

1. Collection: Five (5) replicate samples shall be collected at each ocean monitoring station using a 0.1 m<sup>2</sup> modified Van Veen grab sampler. Diver-employed coring devices can only be used if the Discharger can statistically demonstrate to the Regional Board and EPA that the results are equivalent to a 0.1 m<sup>2</sup> modified Van Veen sampler.
2. For benthic infauna analyses, each replicate sample shall be passed through a 1 mm screen, and the organisms retained and preserved as appropriate for subsequent identification. It is recommended that sample preservation, sample processing, and data analyses be conducted according to Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987).
3. Benthic infauna from each replicate sample shall be counted and identified to the lowest possible taxon. For each replicate sample, number of individuals, number of species, number of individuals per species, and wet weight of each major taxonomic group (polychaetes, molluscs, crustaceans, echinoderms, and all other macroinvertebrates) shall be recorded.
4. The names and qualifications of persons handling and identifying benthic fauna shall be given in all data reports. A voucher collection shall be established containing a sample of each taxon identified to species. These vouchers will be maintained by the Discharger during this permit period and deposited in archival institutions at permit termination. All remaining organisms from infaunal samples will be stored as separate replicate samples by the Discharger for ten (10) years after the effective date of this permit.
5. The annual report on benthic monitoring shall include a complete discussion of benthic infauna survey results and (possible) influence of the outfall on benthic infauna communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate<sup>(24)</sup> statistical analyses (see section VIII, Data Analysis, p. 23) of spatial and temporal patterns observed for number of individuals, number of species, number of individuals per species, and community structure indices<sup>(25)</sup>: species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's Index (SI), Swartz's dominance, and Infaunal Trophic Index (ITI). Classification analyses, using the Bray-Curtis similarity index, and the group average clustering strategy (i.e., the unweighted pair-group method using arithmetic averages), or the flexible sorting strategy, should be conducted. The annual report should also present an analysis of natural community variation including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## VI. TRAWL SURVEY

For Trawl Survey endnotes, see page 32.

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

A standardized trawl shall be a Marinovich 7.62 m (25 ft) head rope otter trawl, towed along the diffuser mid-point depth (approximately 25 m isobath) for a minimum duration of ten (10) minutes at a uniform speed of between 2.0 and 2.5 knots. Necessary steps shall be taken to ensure that both trawls at each station do not sweep the stations sampled for sediments and benthic biota and that the second trawl at each station covers the same distance but does not sweep the same path as the first trawl. Trawling distance, duration, and direction shall be reported.

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

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

The annual report on fish and epibenthic macroinvertebrate monitoring shall include a complete discussion of trawl survey results and (possible) influence of the outfall on fish and epibenthic macroinvertebrate communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate<sup>(24)</sup> statistical analyses (see section VIII, Data Analysis, p. 23) of spatial and temporal patterns observed for number of individuals, number of species, number of individuals per species, etc., and community structure indices<sup>(25)</sup>: species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's Index (SI), and Swartz's dominance. Classification analyses, using the Bray-Curtis similarity index, and the group average clustering strategy (i.e., the unweighted pair-group method using arithmetic averages), or the flexible sorting strategy, should be conducted. The annual report should also present an analysis of natural variation in fish and epibenthic macroinvertebrate communities including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

## VII. BIOACCUMULATION MONITORING

### A. FISH

Annually (October), tissues of commercially and/or ecologically important fish species common to both trawl stations shall be analyzed for specified parameters (see section VII.C, Chemical Analysis, p. 21) at stations TB3 and TB6. For tissue analyses, three (3) composite samples shall be taken from the combined catch of duplicate trawls at station TB3 and three (3) composite samples shall be taken from the combined catch of duplicate trawls at station TB6. If duplicate trawls do not yield sufficient amounts of organisms to allow for tissue analyses, fish may be caught using lines and/or traps.

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

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

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

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

### B. CAGED MUSSELS (*MYTILUS CALIFORNIANUS*)

Annually (October), tissues of the California mussel, *Mytilus californianus*, shall be analyzed for specified parameters (see section VII.C, Chemical Analysis, p. 21) to assess whether organisms in the vicinity of the discharge are bioaccumulating/bioconcentrating toxic pollutants [40 CFR 125.62(b)(1)(ii)]. This assessment shall be made according to methods and techniques approved by the Regional Board and EPA, and should be based primarily on techniques developed by the National Mussel Watch Program and the State Mussel Watch Program. The program may be adjusted to effectively fulfill the objective of assessing whether the discharge is causing sublethal adverse biological effects, or otherwise altering the natural environment. All changes are subject to review and approval by the Regional Board and EPA.

Mussels to be used for offshore bioaccumulation monitoring should be collected as high in the intertidal zone-as possible to minimize variability in the condition of individuals. All individuals should be approximately the same size (i.e., 5 - 8 cm). Prior to deployment, 70 individuals representing the "time zero" ( $T_0$ ) population shall be composited and analyzed as outlined below. At stations B3, B4, and B6, mussels shall be deployed at a depth of 16 meters, for a period of 90 to 100 days. At least 70 individuals shall be deployed at each station; it is recommended that more than 70 individuals be deployed at each station to meet all sampling requirements. Mussels may be cleaned during the deployment period to minimize mortality due to biofouling and predation.

At each station, 70 mussels shall be divided into four (4) composite samples for analysis. One (1) composite sample comprised of 25 individuals shall be used to assess the biological effects of exposure (e.g., incidence of disease/parasitism, shell length, shell cavity weight, condition factor, and gonadal index). Three (3) composite samples each comprised of 15 individuals shall be analyzed for the specified parameters (see section VII.C, Chemical Analysis, p. 21). All analyses shall be conducted on undepurated individuals.

No later than forty-five (45) days following the effective date of this Order and Permit, the Discharger shall submit to the Regional Board and EPA a proposed shellfish monitoring program detailing all field and analytical methods necessary to implement the mussel bioaccumulation requirements of this Order and Permit as specified in sections VII.B and VII.C.

### C. CHEMICAL ANALYSIS

For Chemical Analysis endnotes, see page 32.

Annually (October), the following parameters shall be measured in fish and California mussel (*Mytilus californianus*) tissues, as specified below. Reported results shall be based on wet weight concentrations. For all non-detect results, detection limits must be reported. Dry weight concentration target detection levels are indicated for NOAA National Status and Trends Program analyses.

#### MISCELLANEOUS PARAMETERS

Parameter	Units
Number of Individuals per Composite Sample	--
Survival <sup>(26)</sup>	--

Shell Length <sup>(27)</sup>	mm
Shell Cavity Weight <sup>(27)</sup>	g
Condition Factor <sup>(27)</sup>	--
Gonadal Index <sup>(27)</sup>	--
Tissue Moisture <sup>(28)</sup>	%
Tissue Lipid <sup>(28)</sup>	%

#### TRACE ELEMENTS

Parameter <sup>(28)</sup>	Units	Target Detection Level
Arsenic	µg/g	2.0
Cadmium	µg/g	0.2
Chromium <sup>(3)</sup>	µg/g	0.1
Copper	µg/g	5.0
Lead	µg/g	0.1
Mercury	µg/g	0.01
Nickel	µg/g	0.5
Selenium	µg/g	1.0
Silver	µg/g	0.01
Zinc	µg/g	50.0

#### CHLORINATED ORGANIC PESTICIDES

Parameter <sup>(28)</sup>	Units	Target Detection Level
Aldrin	ng/g	2.0
Chlordane <sup>(7)</sup>	ng/g	2.0
DDT <sup>(8)</sup>	ng/g	2.0
Dieldrin	ng/g	2.0
Heptachlor <sup>(10)</sup>	ng/g	2.0
Hexachlorobenzene	ng/g	2.0
HCH <sup>(5)</sup>	ng/g	2.0
Mirex	ng/g	2.0

#### POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Parameter <sup>(28)</sup>	Units	Target Detection Level
PAHs <sup>(11)</sup>	ng/g	20
1-methylnaphthalene	ng/g	20
1-methylphenanthrene	ng/g	20
2-methylnaphthalene	ng/g	20
2,6-dimethylnaphthalene	ng/g	20
1,6,7-trimethylnaphthalene	ng/g	20
Acenaphthene	ng/g	20
Biphenyl	ng/g	20
Naphthalene	ng/g	20
Benzo(a)anthracene	ng/g	20
Benzo(b)fluoranthene	ng/g	20

Benzo(e)pyrene	ng/g	20
Benzo(ghi)perylene	ng/g	20
Fluoranthene	ng/g	20
Perylene	ng/g	20

#### POLYCHLORINATED BIPHENYLS (PCBs)

Parameter <sup>(23)</sup>	Units	Target Detection Level
PCBs <sup>(12)</sup>	ng/g	2.0

The annual report on bioaccumulation monitoring shall include a complete discussion of bioaccumulation results and (possible) influence of the outfall on fish and M. californianus tissue concentrations in the study area. The discussion should be based on graphical, tabular, and/or appropriate<sup>(24)</sup> statistical analyses (see section VIII, Data Analysis, p. 23) of spatial and temporal patterns observed in tissue concentrations. The annual report should also present an analysis of natural variation in tissue concentrations that could influence the validity of study results. The Discharger's bioaccumulation results may also be compared with the results of other applicable studies, numeric protective levels (e.g., U.S. Food and Drug Administration Action Limits and Warning Levels, National Academy of Sciences Predator Protection Levels for Aquatic Wildlife and Marine Wildlife, Medians of International Standards), etc., as appropriate. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

### VIII. DATA ANALYSIS

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

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

## IX. OUTFALL AND DIFFUSER INSPECTION

Annually (August), the Discharger shall conduct an inspection of the sewage outfall pipe/diffuser system to ensure the proper operation and structural integrity of the system. This inspection shall include general observations and photographic records of the outfall pipe/diffuser system and the surrounding ocean bottom in the vicinity of the outfall/diffuser. The inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. A report detailing inspection results shall be submitted to the Regional Board and EPA with the annual report (see "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985).

## X. PRETREATMENT REQUIREMENTS

- A. The Discharger shall submit an annual report to the State and EPA describing its pretreatment activities over the previous year. In the event that the Discharger is not in compliance with any conditions or requirements of this Order and Permit, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on February 28 of each year. The report shall contain, but not be limited to, the following information:
1. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the Discharger's influent and effluent for those pollutants EPA has identified in 57 Federal Register 60848 (22 December 1992) which are known or suspected to be discharged by industrial users. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos. Sludge shall be sampled during the same 24-hour period and analyzed for the pollutants specified in section III, Sludge Monitoring (see p. 8). The sludge analyzed shall be one (1) composite sample of a minimum of 12 discrete samples. The Discharger shall also provide any influent, effluent, or sludge monitoring data for nonpriority pollutants which the Discharger believes may be causing or contributing to Interference, Pass Through, or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto. Sludge results shall be expressed in mg/kg dry sludge.
  2. A discussion of Upset, Interference, or Pass Through incidents, if any, at the treatment plant which the Discharger knows or suspects was caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass Through, Interference, or noncompliance with sludge disposal/reuse requirements.
  3. An updated list of the Discharger's significant industrial users (SIUs) including their names and addresses, and a list of deletions, additions, and SIU name changes keyed to the previously submitted list. The Discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations.
  4. The Discharger shall characterize the industrial compliance status by providing a list or table which includes, for each SIU:
    - a. SIU name;
    - b. Industrial category;
    - c. The type (processes) of wastewater treatment in place;
    - d. Number of samples taken by the Discharger during the year;
    - e. Number of samples taken by the SIU during the year;
    - f. Whether, for facilities which have limits for total toxic organics, all needed certifications (if allowed) were provided;
    - g. Standards violated during the year (federal and local, reported separately);



- h. Whether the facility was in Significant Noncompliance (SNC), as defined by 40 CFR 403.12(f)(2)(vii), at any time during the year [SNC is determined at the beginning of each quarter based on data of the previous six (6) months]; and
  - i. A summary of enforcement actions taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions, if known, should be included.
5. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms, resource requirements; or staffing levels.
6. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
7. A summary of public participation activities to involve and inform the public.
8. A description of any changes in sludge disposal/reuse methods and a discussion of any concerns not described elsewhere in the report.
- B. The Discharger shall submit quarterly compliance status reports to the State and EPA. The reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 September 30, and October 1 - December 31. Each report shall be submitted by the end of the first month following the previous quarter, except that the report for October 1 December 31 may be included in the annual report. This quarterly reporting requirement shall commence for the first full quarter following issuance of this Order and Permit. The reports shall identify:
  1. All SIUs which violated any standards or reporting requirements during that quarter;
  2. What the violations were (distinguish between categorical and local limits);
  3. What enforcement actions were taken; and
  4. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the previous quarter).

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

California Regional Water Quality Control Board  
Central Coast Region  
81 Higuera Street, Suite 200  
San Luis Obispo, CA 93401-5427

State Water Resources Control Board  
Pretreatment Unit  
P.O. Box 944213  
Sacramento, CA 94244-2130

U.S. Environmental Protection Agency Region IX, ATTN: W-5-2  
Pretreatment and Sludge Section  
75 Hawthorne Street  
San Francisco, CA 94105-3901

ENDNOTES (Monitoring and Reporting Program)

- [1] See section G, Definitions, contained in "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985.
- [2] Sampling shall be arranged so that each day of the 7-day week is represented, at least once, each month, or every two (2) months for weekly sampling. For samples collected 5 times per month, at least one (1) sample shall be taken weekly, and sampling should be arranged so that each day of the 7-day week is represented, at least once, every two (2) months.
- [3] Dischargers 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] DICHLOOROBENZENES shall mean the sum of 1,2- and 1,3-dichlorobenzene.
- [7] CHLORDANE shall mean the sum of chlordanes-alpha, chlordanes-gamma, chlordanes-alpha, chlordanes-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordanes.
- [8] DDT shall mean the sum of 4,4-DDT, 2,4-DDT, 2,4-DDE, 4,4-DDD, and 2,4-DDD.
- [9] HALOMETHANES shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.
- [10] HEPTACHLOR shall mean the sum of heptachlor and heptachlor epoxide.
- [11] 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.
- [12] 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.
- [13] 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 Equivalent 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

- [14] Influent, effluent, and sludge will be analyzed for TCDD equivalents [13] annually. If TCDD equivalents are detected, then the Regional Board and EPA may increase the sampling frequency for TCDD equivalents and/or require analysis of fish liver and/or muscle tissues, and caged mussel tissues.
- [15] REMAINING PRIORITY POLLUTANTS are those pollutants listed as toxic under section 307(a)(1) of the CWA (see also 57 Federal Register 60848, 22 December 1992), or under 40 CFR 125.58(m), and not regulated under the Ocean Plan as Table B toxic materials.
- [16] Sample type shall be a grab, or 24-hr composite, as appropriate (see section G, Definitions, contained in "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985.
- [17] After results are reported, the Discharger may request to the Regional Board and EPA, that only those parameters detected during the first year of sampling be analyzed during the remainder of the permit.
- [18] EFFLUENT TOXICITY TESTING: The Discharger shall conduct toxicity tests on 24-hour composite effluent samples. Samples shall be collected at the NPDES sampling location.

#### A. ACUTE TOXICITY TESTING

The presence of acute toxicity will be determined as specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA 600/4-90-027F, August 1993, or subsequent editions). An initial screening shall be conducted (or equivalent data submitted to the Regional Board and EPA for approval) using the cladoceran, Ceriodaphnia dubia, and the fathead minnow, Pimephales promelas, and approved test protocols to determine the most sensitive species for acute toxicity testing. The initial screening process shall be conducted for three (3) months to account for potential effluent variability. After the initial screening period, monthly acute toxicity testing shall be limited to the most sensitive test species.

The Discharger shall conduct monthly 96-hour static-renewal tests with the species outlined above. Tested effluent concentrations shall be 100%, 75%, 50%, 25%, 12.5%, and a control. Effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and effluent tests must meet all test acceptability criteria as specified in the acute methods manual. If all test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. All test results must be reported according to the acute methods manual chapter on Report Preparation, and shall be attached to the Discharge Monitoring Report (DMR).

Compliance with acute toxicity shall be expressed and reported as acute toxic units chronic (TU<sub>a</sub>), where: TU<sub>a</sub> = 100/96-hour LC50. The Lethal Concentration 50% (LC50) shall be determined by static-renewal bioassay techniques using standard test species.

#### B. CHRONIC TOXICITY TESTING

The presence of chronic toxicity shall be determined as specified in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (EPA 600/4-87/028, May 1988, or subsequent editions) and Experimental Evaluation of Effluent Toxicity Protocols with Giant Kelp, Mysids, Red Abalone, and Topsmelt (Marine Bioassay Project, Report #90-IOWQ, SWRCB, 1989 or subsequent editions). An initial screening shall be conducted (or equivalent data submitted to the Regional Board and EPA for approval) using an aquatic plant, Macrocystis pyrifera, an invertebrate, Haliotis rufescens, and a vertebrate, Menidia beryllina, to determine the most sensitive species for chronic toxicity testing. The initial screening process shall be conducted for one (1) year to account for potential effluent variability. After the initial screening period, quarterly chronic toxicity testing shall be limited to the most sensitive species. Note that when the State Board approves the topsmelt (Atherinops affinis) protocol, A. affinis shall replace Menidia beryllina and the Discharger must rescreen for one (1) year to determine the most sensitive species for chronic toxicity testing.

A minimum of four (4) replicates are required per concentration for M. beryllina. Effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and effluent tests must meet all test acceptability criteria as

specified in the chronic manuals. If all test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Test results must be reported according to the chronic methods manual chapter on Report Preparation, and shall be attached to the DMR. It is also suggested that the Discharger submit all data in electronic format on floppy diskettes, as specified in Suggested Standardized Reporting Requirements For Monitoring Chronic Toxicity (State Water Resources Control Board, California Environmental Protection Agency, August 1993).

Compliance with chronic toxicity shall be expressed and reported as toxic units chronic (TUC), where:  $TUC = 100/NOEC$ . The No Observed Effect Concentration (NOEC) is the maximum percent effluent that causes no observable effect on a test organism, as determined by the results of a critical life stage toxicity test (see Bioassay References, p. 30).

### C. EXCEEDANCE EVALUATIONS

The Discharger must submit to the Regional Board and EPA a Toxicity Reduction Evaluation (TRE) workplan within 60 days of Order and Permit issuance.

Whenever the acute or chronic toxicity effluent limitation is exceeded, the Discharger shall:

1. In accordance with the municipal TRE protocol manual (EPA/600/2-88/062) initiate a TRE within 15 days of the exceedance to reduce the cause(s) of toxicity;
2. In accordance with acute and chronic Toxicity Identification Evaluation (TIE) manuals (Phase I, EPA/600/6-91/005F, May 1992; Phase II, EPA/600/R-92/080, September 1993; and Phase III, EPA/600/R-92/081, September 1993, initiate a TIE to identify the cause(s) of toxicity;

### D. REPORTING EXCEEDANCE EVALUATION RESULTS

The Discharger shall notify the Regional Board and EPA within 15 days of completion:

1. The finding of the TIE or other investigation(s) to identify the cause(s) of toxicity;
2. Actions the Discharger has taken or will take to mitigate the impact of the discharge, to correct the noncompliance, and to prevent the recurrence of toxicity; and where corrective actions, including a TRE or TIE have not been completed, the Discharger shall propose an expeditious schedule under which corrective actions will be implemented.

### E. TOXICITY REOPENER

This Order and Permit may be modified, or alternatively revoked and reissued, in accordance with the requirements set forth at 40 CFR 122 and 124, to include appropriate conditions or limitations to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to whole effluent toxicity.

- [19] PRIORITY POLLUTANTS are those pollutants listed as toxic under section 307(a)(1) of the CWA (see also 57 Federal Register 60848, 22 December 1992), or under 40 CFR 125.58(m), or Table B toxic materials regulated under the Ocean Plan.
- [20] Refer to Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Waters (EPA 430/9-82-010, 1982) and Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987).
- [21] The reduction of NATURAL LIGHT may be determined by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Board.

- [22] Report percent (%) weight in relation to phi size.
- [23] If Acid Volatile Sulfide cannot be effectively characterized, the Discharger shall so notify the Regional Board and EPA. Upon concurrence by the Regional Board and EPA, the Discharger shall monitor for Dissolved Sulfides (at pH 7) in lieu of Acid Volatile Sulfide for the duration of this Order and Permit.
- [24] A calculated test statistic is only valid when the sample data set meets all statistical test assumptions.
- [25] Refer to Recommended Biological Indices for 301(h) Monitoring Programs (EPA 430/9-86-004, 1987).
- [26] At each station, parameter shall be reported only for all deployed individuals of M. californianus.
- [27] At each station, parameter shall be analyzed and reported only for composite samples comprised of 25 individuals of M. californianus.
- [28] At each station, parameter shall be analyzed and reported only for composite samples comprised of 15 individuals of M. californianus and composite samples of target fish species.

## XI. REPORTING SCHEDULE


Monitoring reports shall conform to the content and schedule requirements of section C, General Reporting Requirements, contained in "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985.

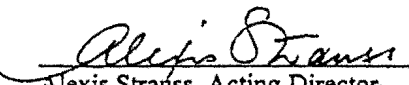
Monitoring Frequency	Report Due
Influent, effluent, sludge, and receiving water monitoring Annual Report (including benthic monitoring, trawl surveys and bioaccumulation monitoring, and outfall/diffuser inspection)	Last day of the month after sample collection March 31

## XII. IMPLEMENTATION

The Discharger shall implement the required influent, effluent, sludge, and surf zone monitoring upon the effective date of this Order and Permit. Water column monitoring at nearshore, ocean, and plume stations shall begin in October 1996. Benthic sediment and infauna monitoring, trawl surveys, and bioaccumulation monitoring shall begin in October 1996. Annual outfall/diffuser inspection shall begin August 1997.

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 July 26, 1996 and of a NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on JUL 26 1996.

  
Roger 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

## **Box B.**

### **The California Ocean Plan**

The California Ocean Plan establishes beneficial uses of ocean waters, water quality objectives, and effluent limitations for waste discharges to the ocean. Regional Boards have the option to establish more stringent water quality objectives and effluent quality requirements than those contained in the Ocean Plan.

Beneficial uses to be protected include industrial water supply, recreation, esthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other marine resources or preserves.

Water quality objectives are intended to ensure protection of beneficial uses and prevention of nuisance. They include:

- **Bacteriological Standards**, for body-contact and shellfish harvesting;
- **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;
- **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;
- **Biological Characteristics**, that marine communities not be degraded, and that the taste, odor and color of fish or shellfish used for human consumption not be altered.

Effluent quality requirements are also applied to waste discharges to the ocean and are contained in Tables A and B of the Ocean Plan. Table A limitations apply only to POTWs and to industrial dischargers for which effluent limitation guidelines have not been developed in the Clean Water Act. Table B applies to all dischargers.

Table A limits concentrations of grease and oil, suspended solids, settleable solids, turbidity, pH, and toxicity concentration.

Table B sets forth effluent limitations for:

Arsenic  
Cadmium  
Chromium  
Copper  
Lead  
Mercury  
Nickel  
Silver  
Zinc  
Cyanide  
Total Chlorine Residual  
Ammonia

Phenolic Compounds (non-chlorinated)  
Chlorinated Phenolics  
Aldrin and Dieldrin  
Chlordane and Related Compounds  
DDT and derivatives  
Endrin  
HCH  
PCB's  
Toxaphene  
Radioactivity  
Toxicity Concentration


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TABLE 10. RECEIVING WATER QUALITY OBJECTIVES FOR THE GOLETA AREA

1. Dissolved oxygen	Shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen-demanding waste materials.
2. Total coliform bacteria	Shoreline zone and body contact sports areas: Greater than 80 percent of samples in any 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 hrs. shall be greater than 10,000 MPN per 100 ml. Shellfish harvest area: Shall not exceed a median value of 70 MPN per 100 ml and not more than 10 percent of the samples shall exceed 230 MPN per 100 ml.
3. Fecal coliform bacteria	Shoreline zone and body contact sports areas: 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 percent of the total samples during any 60-day period shall exceed 400 MPN per 100 ml.
4. pH	The pH shall not be changed more than 0.2 units from that which occurs naturally.
5. Turbidity	Natural light shall not be significantly (95 percent confidence level) reduced at any point outside the initial dilution zone as the result of the discharge of waste.
6. Color	The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
7. Floating substances	Floating particulates and grease and oil shall not be visible.
8. Settleable solids	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. Dissolved sulfide	The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
10. Nutrient materials	Shall not cause objectionable aquatic growths or degrade indigenous biota.
11. Toxic materials	The concentration of substances set forth in Chapter IV Table B (of the Ocean Plan) in marine sediments shall not be increased to levels which would degrade indigenous biota.
12. Organic materials	The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.
13. Marine communities	Marine communities including vertebrate, invertebrate, and plant species, shall not be degraded.
14. Marine resources	The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
15. Bioaccumulation of organic materials	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.
16. Radioactivity	The discharge of radioactive waste shall not degrade marine life.

Source: California Ocean Plan (State Water Resources Control Board, 1990).

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## EPA. RECOMMENDATION

It is recommended that the applicant be granted a Section 301(h) variance in accordance with the above findings, contingent upon the satisfaction of the following conditions, and that a draft NPDES permit be prepared in accordance with the applicable provisions of 40 CFR Parts 122-125.

The applicant's receipt of a Section 301(h) variance is contingent upon:

- The applicant's satisfactory revision of its proposed monitoring programs, such programs to be capable of implementation upon issuance of an effective 301(h) modified NPDES permit. [40 CFR 125.62].
- The California Coastal Commission determination that the applicant's proposed discharge is consistent with the State of California Coastal Management Program (CCMP). [40 CFR 125.59(b)(3)].
- The NOAA determination that the applicant's proposed discharge is in compliance with the Marine Protection, Research, and Sanctuaries Act. [40 CFR 125.59(b)(3)].
- The US Fish and Wildlife Service determination that the applicant's proposed discharge is in compliance with the Endangered Species Act. [40 CFR 125.59(b)(3)].
- The State of California concurring or waiving concurrence in the approval of a Section 301(h) variance. At this time, the State has not indicated its decision. [40 CFR 125.59(g)(2)].

In addition to all applicable terms and conditions required by 40 CFR Part 122, the draft NPDES permit is to include the following terms and conditions specific to Section 301(h):

- Final effluent limitations (including flow and pollutant loadings) in accordance with the terms and conditions of this document.
- Schedules for the development and implementation of the revised monitoring programs, and schedule of activities to control nonindustrial toxic sources in accordance with the terms and conditions of this document.
- Reporting requirements in accordance with 40 CFR 125.67(d). These include reporting all monitoring results at the prescribed frequency in the approved monitoring program.

This recommendation does not contain any inference regarding the eligibility of the applicant's proposed facilities for construction grant funds under Title II of the Act.

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## EPA DECISION CRITERIA

Under Section 301(b)(1)(B) of the Act, 33 USC Section 311(b)(1)(B), POTWs in existence on July 1, 1977 were required to meet effluent limitations based upon secondary treatment as defined by the Administrator. Secondary treatment has been defined by the Administrator in terms of three parameters: biochemical oxygen demand (BOD), suspended solids (SS) and pH (40 CFR 133). Uniform national effluent limitations for these pollutants were promulgated and included in 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 of EPA, with State concurrence, to issue Section 402 permits which modify the secondary treatment requirements of the Act. PL 95-217, 91 Stat. 1556, as amended by, PL 97-117, 95 Stat. 1623. Section 301(h) provides that:

(h) The Administrator, with the concurrence of the State, may issue a permit under section 402 of this Act which modifies the requirements of subsection (b)(1)(B) of this section 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 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 such 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;

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(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 this Act after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

For the purpose of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial seas 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 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 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 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 northwest 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 USC 1451 et seq.), the Endangered Species Act (16 USC 1531 et seq.), the Marine Protection, Research and Sanctuaries Act (16 USC 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 is analyzed in the context of the statutory and regulatory criteria.

