Linda S. Adams
Secretary for Environmental Protection

California Regional Water Quality Control Board

Arnold Schwarzenegger
Governor

Central Coast Region

895 Aerovista Place, Suite 101, San Luis Obispo, California 93401
(805) 549-3147 • Fax (805) 543-0397
www.waterboards.ca.gov

ORDER NO. R3-2008-0065
NPDES NO. CA0047881

WASTE DISCHARGES REQUIREMENTS FOR THE MORRO BAY AND CAYUCOS WASTEWATER TREATMENT PLANT DISCHARGES TO THE PACIFIC OCEAN, MORRO BAY, SAN LUIS OBISPO COUNTY

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

Table 1. Discharger Information

Discharger	City of Morro Bay and Cayucos Sanitary District
Name of Facility	Morro Bay/Cayucos Wastewater Treatment Plant (WWTP)
Facility Address	160 Atascadero Road Morro Bay, California San Luis Obispo County

The discharge by the City of Morro Bay and Cayucos Sanitary District from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Municipal Wastewater	35º, 23', 11" N	120º, 52', 29" W	Pacific Ocean

Table 3. Administrative Information

This Order was adopted by the Central Coast Water Board on:	December 5, 2008
This Order shall become effective on:	USEPA Issuance Date + 33 days
This Order shall expire on:	Effective Date + 5 years
The U.S. Environmental Protection Agency (USEPA) and the Central Coast Water Board have classified this discharge as a major discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, by June 13, 2013, as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 98-15 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

This certifies that the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on December 5, 2008, and of an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on_____.

_____	_____
Roger W. Briggs	Alexis Strauss
Executive Officer, Central Coast Region	Director, Water Division, Region IX
California Regional Water Quality Control Board	U.S. Environmental Protection Agency

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

ORDER NO. R3-2008-0065
NPDES PERMIT NO. CA0047881

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I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	City of Morro Bay and Cayucos Sanitary District
Name of Facility	Morro Bay/Cayucos WWTP
Facility Address	160 Atascadero Road
	Morro Bay, California 93442
	San Luis Obispo County
Facility Contact, Title, and Phone	Bruce Keogh, Wastewater Division Manager, (805) 772-6272
Mailing Address	595 Harbor Street, Morro Bay, California 93442
Type of Facility	Municipal WWTP
Facility Design Flow	Annual average of 2.06 million gallons per day (MGD), Peak seasonal dry weather flow of 2.36 MGD

II. FINDINGS

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

A. Background. The City of Morro Bay and Cayucos Sanitary District (hereinafter Discharger) are currently discharging under Order No. 98-15 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047881. An NPDES permit modifying secondary treatment requirements was originally issued to the Discharger by USEPA and the Central Coast Water Board on March 29, 1985 (NPDES Permit No. CA0047881). The permit was reissued on March 8, 1993, and again on December 11, 1998. The permit expired March 1, 2004, but continues in force until the effective date of the new permit, in accordance with 40 CFR Part 122.6. The Discharger applied for reissuance of its 301(h)-modified permit on July 7, 2003. The Discharger's application requests renewal of the following effluent limitations:

Constituent	Monthly Average	Maximum
Biochemical Oxygen Demand (mg/L)	120	180
Suspended Solids (mg/L)	70	105

These effluent limitations are based on the Morro Bay/Cayucos WWTP design specifications for combined primary and secondary effluent quality under a peak seasonal dry weather flow of 2.36 million gallons per day (MGD).

USEPA summarized its evaluation of the Discharger's 301(h) application and drafted a tentative decision, which was signed on November 10, 2005, to grant the Discharger's request for reissuance of its 301(h) modified NPDES permit.

B. Facility Description. The Facility provides treatment by a split-stream process of physical and biological treatment. All wastewater flows through primary sedimentation basins. Up to 1.0 million gallons per day (MGD) is then diverted through secondary treatment facilities including trickling filter, solids-contact, and secondary clarification. Secondary-treated wastewater is then blended with primary-treated wastewater and disinfected by chlorination, then dechlorinated prior to discharge to the Pacific Ocean. Biosolids are anaerobically digested and dried, and then used as a soil conditioner. The treatment plant has the following design capacities:

Average Dry Weather Flow:	2.06 MGD
Peak Seasonal Dry Weather Flow:	2.36 MGD
Maximum Wet Weather Flow:	6.64 MGD

The Central Coast Water Board and USEPA classify the discharge as a major discharge (>1.0 MGD). According to 40 CFR 125.58(c), the Discharger is defined as a small applicant for 301(h) modified permit (<5 MGD). A diagram of the treatment process is depicted on Attachment C, included as part of this permit.

Treated municipal wastewater is discharged to the Pacific Ocean through a 4400-foot (1340 m) outfall/diffuser system. The outfall terminates in the Pacific Ocean (35º23'11"N Latitude, 120º52'29"W Longitude) in approximately 50 feet (15 m) of water. The outfall location is shown in Attachment A. The diffuser was modeled to achieve a minimum initial dilution of 133 parts seawater for every part effluent. Alternative locations and methods of disposal or recycling, including land-based alternatives, were considered during planning under the Clean Water Grants Program. The Discharger plans on upgrading the facility to tertiary treatment. Details of the upgrades are discussed in Finding No. I and Section II.A of the Fact Sheet.

C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260). USEPA Water Quality Criteria (acute and chronic toxicity and consumption of marine fish) were calculated using a minimum dilution ratio of 133:1 (i.e., 133 parts seawater to one part effluent).

D. Background and Rationale for Requirements. The Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through F are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Pursuant to Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code sections 21100-21177. This action regulates an existing facility and involves negligible or no expansion of use, and is also exempt from the provisions of the CEQA in accordance with Section 15301, Title 14 of the California Code of Regulations.

F. Technology-Based Effluent Limitations. CWA Section 301 (b) and USEPA's NPDES regulations at Title 40 of the Code of Federal Regulations (40 CFR) 122.44 require that permits include, at a minimum, conditions meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges authorized by this Order must meet minimum federal technology-based requirements based on secondary treatment standards established at 40 CFR Part 133 and best professional judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of development of technology-based effluent limitations is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations. CWA Section 301(b) and NPDES regulations at 40 CFR 122.44 (d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

NPDES regulations at 40 CFR 122.44 (d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential is established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304 (a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided at 40 CFR 122.44 (d)(1)(vi).

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

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

Table 5. Basin Plan Beneficial Uses for the Pacific Ocean

Discharge Point	Receiving Water	Beneficial Use(s)
001	Pacific Ocean	• Water Contact (REC-1), • Non-Contact Recreation (REC-2), • Navigation (NAV), • Industrial Water Supply (IND) • Shellfish Harvesting (SHELL) • Commercial and Sport Fishing (COMM), • Marine Habitat (MAR), • Rare, Threatened, or Endangered Species (RARE), and • Wildlife Habitat (WILD)

I. California Ocean Plan

The State Water Board adopted the Ocean Plan in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005, and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the Ocean. The Ocean Plan identifies the following beneficial uses of ocean waters of the State.

Table 6. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	• Industrial Water Supply (IND) • Water Contact and Non-Contact Recreation, including Aesthetic Enjoyment (REC) • Navigation (NAV) • Commercial and Sport Fishing (COMM) • Mariculture (MARI) • Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS) • Rare and Endangered Species (RARE) • Marine Habitat (MAR) • Fish Migration (MIGR) • Fish Spawning and Shellfish Harvesting (SPWN)

In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and programs of implementation to achieve and maintain those objectives. Requirements of this Order implement the Ocean Plan.

J. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000), codified at 40 CFR 131.21] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

K. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD_5), TSS, settleable solids, oil and grease, turbidity, and pH at Discharge Point M-001. These restrictions are discussed in Section III.2.C. of the Fact Sheet. This Order's technology-based pollutant restrictions implement, at the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by USEPA on February 14, 2006.

All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by the USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR. 131.21 (c) (1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

L. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Central Coast Water Board's Basin Plan implements and incorporates by reference both the State and federal antidegradation policies. As discussed in detail in Section III.C.5 of the Fact Sheet, the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

M. Anti-Backsliding Requirements. CWA Sections 402 (o)(2) and 303 (d)(4) and NPDES regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. As discussed in Section III.C.6. of the Fact Sheet, effluent limitations and other requirements established by this Order satisfy applicable anti-backsliding provisions of the CWA and NPDES regulations.

N. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of State and federal law regarding threatened and endangered species. Due to questions regarding potential impacts from continued discharges from the wastewater facility to endangered species in the area at the May 11, 2006 Water Board meeting, the USEPA developed an Endangered Species Act Biological Evaluation finding that continued discharges would not likely have adverse affects on the southern sea otter and brown pelican. The USEPA requested concurrence from the U.S. Fish and Wildlife Service (USFWS) on

September 6, 2006. The USFWS agreed with USEPA's findings that the continued discharge would not likely have adverse effects on endangered species in the area.

O. Monitoring and Reporting. NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorize the Central Coast Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.

P. Standard and Special Provisions. Standard Provisions that apply to all NPDES permits in accordance with NPDES regulations at 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Central Coast Water Board has also included in this Order special provisions applicable to the Discharger. Rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

Q. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV and V. of this Order are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

R. Notification of Interested Parties. The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in Section VI.A. of the Fact Sheet accompanying this Order.

S. Consideration of Public Comment. The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in Section VI.B. of this Orders' Fact Sheet.

T. Privilege to Discharge. A permit and the privilege to discharge waste into waters of the State are conditional upon the discharge complying with provisions of division 7 of the CWC and of the CWA (as amended or as supplemented by implementing guidelines and regulations), and with any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisances.

U California Water Code Section 13241. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations are specified in federal regulations as discussed in Attachment F, Section IV.B, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable

federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 C.F.R. 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the California Ocean Plan, which USEPA approved January 20, 2005. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U S. EPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 C.F.R. 131.21(c)(1). As stated in Attachment F, certain water quality objectives and beneficial uses implemented by this Order are contained in the 2005 Ocean Plan which was approved by USEPA, and are applicable water quality standards pursuant to 40 C.F.R. 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

V. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General WDRs).** The General WDRs, Order No. 2006-0003-DWQ, adopted May 2, 2006, apply to publicly owned sanitary sewer systems (collection systems) that are one mile or greater in length. The General WDRs require collection system entities to develop a Sanitary Sewer Management Plan (SSMP). SSMPs are required to include goals; organization; legal authority; operations and maintenance program; design and performance provisions; an overflow emergency response plan; fats, oils, and greases control program; systems evaluations and capacity assurance program; monitoring, measures, and program modifications; and an SSMP Program audit. Additionally, the General WDRs require the collection system entities to report sanitary sewer overflows (SSOs). Collection system entities are required to report SSOs that are greater than 1,000 gallons. Furthermore, some entities must also report SSOs less than 1,000 gallons discharging to surface waters or storm drains or that threaten public health. Reporting provisions are set forth in the General WDRs. Reporting shall occur through the Statewide Online SSO database. Reporting times vary depending on discharge amount and destination.

The Dischargers enrolled separately under the General WDR. The City of Morro Bay received formal enrollment status for General WDR coverage on January 8, 2007. Cayucos Sanitary District received formal enrollment status for General WDR coverage on January 9, 2007. Both entities are currently developing and implementing elements of a sanitary sewer management program as required by the General WDR.

W. **401 Certification**. Central Coast Water Board adoption of this Order constitutes certification and concurrence under 40 CFR 124.54, that the discharge, as described in the Discharger's 301(h) application, will comply with applicable state laws, including water quality standards, and will not result in additional treatment, pollution control, or other requirements on any other point or nonpoint source. Conversely, Central Coast Water Board denial of this Order constitutes denial of certification. According to Clean Water Act Section 401(a)(1), USEPA may not issue the NPDES permit until the Central Coast Water Board grants certification.

X. **National Marine Fisheries Certification**. The Discharger provided certification in a letter from the National Marine Fisheries Service (NMFS) dated August 12, 2003, that the proposed 301(h) discharge is not expected to impact local critical habitats and/or endangered species under its jurisdiction.

Y. **Pretreatment**. The Discharger is exempt from applicable pretreatment requirements specified under 40 CFR 125.66(d). In accordance with requirements specified in this Order and Permit, the Discharger shall implement public education and waste minimization/source reduction programs to limit the introduction of toxic pollutants and pesticides into the treatment plant. Implementation of 'Pollution Prevention Program' will substitute for those requirements specified under 40 CFR 125.66 (d) (Nonindustrial Source Control Program).

Z. **Mandatory Penalties**. Section 13385(h) and Section 13385(i) of the California Water Code require the Central Coast Water Board to impose mandatory penalties for certain effluent limit violations. Section 13385(h) et seq. applies to effluent discharged to the ocean from the Discharger.

AA. **Facility Upgrade.** The Discharger has agreed to upgrade the Facility to tertiary treatment pursuant to a Settlement Agreement with the Central Coast Water Board. The Settlement Agreement provides for an eight and one-half year conversion schedule. Subject to the provisions of the Settlement Agreement regarding force majeure, the conversion schedule is as follows:

CONVERSION SCHEDULE

Task	Date of Completion [1]
Preliminary Activities:	
1. Issuance of Request for Consulting Engineering Proposals for Facilities Master Plan	November 11, 2005
2. Award of Consulting Engineering Contracts	April 27, 2006
Facilities Planning:	
1. Submit Final Draft Facilities Master Plan	November 30, 2007
2. Submit Final Facilities Master Plan	September 30, 2009
Environmental Review and Permitting:	
1. Complete and Circulate Draft CEQA Document	February 27, 2009
2. Obtain Coastal Development permits	May 31, 2011
Financing:	
1. Complete Draft Plan for Project Design and Construction Financing	December 31, 2007
2. Complete Final Plan for Project Financing	June 30, 2008
3. Submit proof that all necessary financing has been secured, including compliance with Proposition 218	October 30, 2009
Design and Construction:	
1. Initiate Design	September 30,

Task	Date of Completion [1]
	2010
2. Issue Notice to Proceed with Construction	May 29, 2012
3. Construction Progress Reports	Quarterly (w/ SMRs)
4. Complete Construction and Commence Debugging and Startup	January 31, 2014
5. Achieve Full Compliance with Secondary Treatment Requirements	March 31, 2014

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

Attachment F includes additional information about the facility upgrade. The requirements of the Settlement Agreement are enforceable as set forth in the Settlement Agreement. The Central Coast Water Board and EPA have considered the Settlement Agreement in adopting this Order, but the upgrade requirements are not terms of the Permit. Subject to the provisions of the Agreement regarding Water Board Discretion and New Evidence, the Settlement Agreement contemplates that the Water Board will concur in the issuance of this modified discharge permit and issue an NPDES Permit in order to effect the Settlement Agreement and the Discharger's obligation to complete the upgrade of its treatment facility to tertiary treatment within a eight-and-one-half-year period. Based on the administrative record, including population growth projections through 2015, known environmental and cumulative impacts of the Discharger's existing wastewater treatment facilities, and evidence submitted by the Discharger of the time needed for upgrading the plant, the conversion schedule is reasonable, necessary and appropriate. The Central Coast Water Board has also considered the need to develop recycled water. A need to develop and use recycled water exists within the region. The eight and one-half year upgrade schedule includes the consideration of technical and funding options for installing tertiary treatment to address recycled water needs.

BB. Right to Petition. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of regulations, title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filling petitions may be found on the internet at:

http://www.waterboards.ca.gov/public_noticies/petitions/water_quality

or will be provided upon request.

III. DISCHARGE PROHIBITIONS

A. The discharge of treated wastewater at a location other than 35º23'11"N Latitude, 120º52'29"W Longitude is prohibited.

B. Bypass of the treatment facility and discharge of any wastes not meeting the discharge specifications of this Order and Permit are prohibited.

C. Discharge of any wastes including overflow, bypass and seepage from transport, treatment or disposal systems is prohibited.

D. The discharge of chlorine or any other toxic substance used for disinfection and cleanup of sewage overflows to any surface water body is prohibited. This prohibition does not apply to the chlorine in the potable water used for final wash down and cleanup of overflows.

IV. EFFLUENT LIMITATIONS[1] AND DISCHARGE SPECIFICATIONS

A. Effluent peak seasonal dry weather flow shall not exceed a monthly average of 2.36 MGD.

B. The Discharger shall, as a 30-day average, remove at least 75% of suspended solids and 30% of BOD_5 from the influent stream before discharging wastewater to the ocean, except that the limit shall not be less than 60 mg/L. In addition, effluent shall not exceed the following limits:

Constituent	Unit of Measurement	Average Monthly	Instantaneous Maximum
BOD_5	mg/L	120	180
	lbs/day	2062	3092
	kg/day	936	1404
Suspended Solids	mg/L	70	105
	lbs/day	1203	1804
	kg/day	546	819

C. Effluent shall not exceed the following limits:

1.

Constituent	Units	Average Monthly	Average Weekly	Instantaneous Maximum
Grease and Oil	mg/L	25	40	75
	lbs/day	430	687	1288
	kg/day	195	312	585
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.		

2. FOR PROTECTION OF MARINE AQUATIC LIFE

Constituent	Units	Six-Month Median	Maximum Daily	Instantaneous Maximum
Arsenic	mg/L	0.67	3.89	10.3
Cadmium	mg/L	0.13	0.54	1.34
Chromium(Hex)[2]	mg/L	0.27	1.07	2.68
Copper	mg/L	0.14	1.34	3.75
Lead	mg/L	0.27	1.07	2.68
Mercury	µg/L	5.29	21.4	53.5
Nickel	mg/L	0.67	2.68	6.70
Selenium	mg/L	2.01	8.04	20.1

[1] Based on Ocean Plan criteria using a calculated minimum initial dilution of 133:1. If actual dilution is found to be less than 133:1, these values will be recalculated.
[2] The Discharger may at its option meet this limitation as a Total Chromium limitation.

Constituent	Units	Six-Month Median	Maximum Daily	Instantaneous Maximum
Silver	mg/L	0.07	0.35	0.92
Zinc	mg/L	1.62	9.66	25.7
Cyanide[3]	mg/L	0.13	0.54	1.34
Total Chlorine Residual	mg/L	0.27	1.07	8.04
Ammonia (as N)	mg/L	80.4	322	804
Acute Toxicity	TUa	--	4.3	--
Chronic Toxicity[4]	TUc	--	134	--
Phenolic Compounds (non-chlorinated)	mg/L	4.02	16.1	40.2
Chlorinated Phenolics	mg/L	0.13	0.54	1.34
Endosulfan[5]	µg/L	1.21	2.41	3.62
Endrin	µg/L	0.27	0.54	0.80
HCH[6]	µg/L	0.54	1.07	1.61
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations.			

3. FOR PROTECTION OF HUMAN HEALTH, NON-CARCINOGENS

Constituent	Units	Average Monthly
acrolein	mg/L	29.5
antimony	mg/L	160.8
bis(2-chloroethoxy) methane	mg/L	0.59
bis(2-chloroisopropyl) ether	mg/L	160.8
chlorobenzene	mg/L	76.4
chromium (III)[7]	g/L	25.5
di-n-butyl phthalate	mg/L	469
dichlorobenzenes[8]	mg/L	683
diethyl phthalate	mg/L	4420

[3] If a discharger can demonstrate to the satisfaction of the Regional Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR PART 136, as revised May 14, 1999

[4] Chronic Toxicity Units (TUc): TUc = 100/NOEL (No Observed Effect Level). NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix III of the 2001 California Ocean Plan.

[5] Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

[6] HCH means the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

[7] Discharger may at their option meet this objective as a total chromium objective.

[8] Sum of 1,2- and 1,3-dichlorobenzene.

Constituent	Units	Average Monthly
dimethyl phthalate	g/L	109.9
4,6-dinitro-2-methylphenol	mg/L	29.5
2,4-dinitrophenol	mg/L	0.54
ethylbenzene	mg/L	549
fluoranthene	mg/L	2.0
hexachlorocyclopentadiene	mg/L	7.8
nitrobenzene	mg/L	0.66
thallium	mg/L	0.27
toluene	g/L	11.4
tributyltin	µg/L	0.188
1,1,1-trichloroethane	g/L	72.4

4. FOR PROTECTION OF HUMAN HEALTH, CARCINOGENS

Constituent	Units	Average Monthly
acrylonitrile	µg/L	13.4
aldrin	ng/L	2.95
benzene	µg/L	791
benzidine	ng/L	9.25
beryllium	µg/L	4.42
bis(2-chloroe-thyl) ether	µg/L	6.03
bis(2-ethylhexyl) phthalate	µg/L	469
carbon tetrachloride	µg/L	121
chlordane[9]	ng/L	3.08
chlorodibromomethane	µg/L	1152
chloroform	mg/L	17.4
DDT[10]	ng/L	22.8
1,4-dichlorobenzene	mg/L	2.41
3,3-dichlorobenzidine	µg/L	1.09
1,2-dichloroethane	mg/L	3.75
1,1-dichloroethylene	mg/L	0.12
dichlorobromomethane	mg/L	0.83
dichloromethane	mg/L	60.3
1,3-dichloropropene	mg/L	1.19
dieldrin	ng/L	5.36
2,4-dinitrotoluene	µg/L	348
1,2-diphenylhydrazine	µg/L	21.4
halomethanes[11]	mg/L	17.4

[9] Sum of chlorodane-alpha, chlorodane-gamma, chlorodene-alpha, chlorodene-gamma, nonachlor-alpha and oxychlorodane.
[10] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
[11] Sum of bromoform, bromoethane (methylbromide), chloro-methane (methyl chloride), chlorodibromomethane and dichlorobromo-methane.

Constituent	Units	Average Monthly
heptachlor	pg/L	6.7
heptachlor epoxide	pg/L	2.68
hexachlorobenzene	ng/L	28.1
hexachlorobutadiene	mg/L	1.88
hexachloroethane	µg/L	335
isophorone	mg/L	98
N-nitrosodimethylamine	µg/L	978
N-nitrosodi-N-propylamine	µg/L	50.9
N-nitrosodiphenylamine	µg/L	335
PAHs[12]	µg/L	1.18
PCBs[13]	ng/L	2.55
TCDD equivalents[14]	pg/L	0.52
1,1,2,2-tetrachloroethane	mg/L	0.31
tetrachloroethylene	µg/L	268
toxaphene	ng/L	28.1
trichloroethylene	mg/L	3.62
1,1,2-trichloroethane	mg/L	1.26
2,4,6-trichlorophenol	mg/L	0.039
vinyl chloride	mg/L	4.82

5. The effluent mass emission rate shall not exceed the *Maximum Allowable Mass Emission Rate*, as described in the Standard Provisions and Reporting Requirements[15].

6. Violations of the *Instantaneous Maximum* or *Maximum Allowable Daily Mass Emission Rate* must be reported to the Central Coast Water Board within 24 hours.

D. Total coliform bacteria in effluent shall not exceed a 30-day median of 23 MPN/100 mL and a maximum of 2400 MPN/100 mL.

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

[13] 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.

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

[15] Daily mass emission calculations shall be based on the average design flow rate of 2.06 million gallons per day (MGD).

E. Effluent 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 that will accumulate to toxic levels in marine waters, sediments or biota.

4. Substances that significantly decrease the natural light to benthic communities.

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

F. Reclamation Specifications

1. For the proper use of treated wastewater, the Discharger shall comply with applicable requirements of CWC sections 13500 – 13577 (Water Reclamation) and of California Code of Regulations (CCR) title 22, sections 60301 – 60357 (Water Recycling Criteria).

2. Pursuant to CWC section 13523, the Discharger shall develop and submit to the Executive Officer for approval a Preconstruction Report to demonstrate compliance of the proposed reclamation project with applicable water reclamation and recycling criteria established in the CWC and CCR. The Preconstruction Report shall be equivalent to an Engineering Report as required by CCR title 22, section 60323. It shall be prepared by a properly qualified engineer registered in California and experienced in the field of wastewater treatment. The Preconstruction / Engineering Report shall contain a description of the design of the proposed reclamation system and shall demonstrate the means for compliance with applicable water reclamation and recycling criteria established in the CWC and CCR. It shall include a Contingency Plan to ensure that untreated or inadequately treated wastewater will not be delivered to the use area(s). The Discharger shall receive written notice of approval of the Preconstruction/Engineering Report from the Executive Officer prior to any reuse of treated wastewater.

V. RECEIVING WATER LIMITATIONS

Bacterial Characteristics

A. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone designated for water contact recreation use by the Central Coast Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.

1. 30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.

   a. Total coliform density shall not exceed 1,000 per 100 mL;

   b. Fecal coliform density shall not exceed 200 per 100 mL; and

   c. Enterococcus density shall not exceed 35 per 100 mL.

2. Single Sample maximum;

   a. Total coliform density shall not exceed 10,000 per 100 mL;

   b. Fecal coliform density shall not exceed 400 per 100 mL; and

   c. Enterococcus density shall not exceed 104 per 100 mL.

   d. Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1

B. California Department of Public Health (DPH) Standards

DPH has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the CCR, Title 17, Section 7958, and they are identical to the objectives contained in subsection a. above. When a public beach or public water-contact sports area fails to meet these standards, DPH or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. The DPH regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations, DPH imposes the same standards as contained in Title 17 and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

C. Shellfish Harvesting Standards

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

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

D. Implementation Provisions for Bacterial Characteristics

1. Water-Contact Monitoring

   a. Samples should be collected at least weekly from each site during each 30-day period, with sampling intervals evenly spaced. The geometric mean shall be calculated using the five most recent sample results.

   b. If a single sample exceeds any of the following densities, repeat sampling at that location will be conducted daily to determine the extent and persistence of the exceedance. Repeat sampling will be conducted until the sample result is less than the Section V.A.1.a (2) densities, or until a sanitary survey is conducted to determine the source of the high bacterial densities.

      When repeat sampling is required because of an exceedance of any one single sample density, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

   c. For monitoring stations outside of the defined water-contact recreation zone but in areas determined by the Regional Board to be used for water-contact recreation, samples will be analyzed for total coliform.

Physical Characteristics

E. Wastewater constituents within the discharge shall not cause floating particles or oil and grease to be visible on the ocean surface.

F. Wastewater constituents within the discharge shall not cause aesthetically undesirable discoloration of the ocean surface.

G. Wastewater constituents within the discharge shall not cause significant reduction in the transmittance of natural light at any point outside the initial dilution zone.

H. Wastewater constituents within the discharge shall not cause change in the rate of deposition and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

I. Wastewater constituents within the discharge shall not cause temperature of the receiving water to adversely affect beneficial uses.

Chemical Characteristics

J. Wastewater constituents within the discharge shall not cause the dissolved oxygen concentration outside the zone of initial dilution to fall below 5.0 mg/L or to be depressed more than 10 percent from that which occurs naturally.

K. Wastewater constituents within the discharge shall not cause the pH outside the zone of initial dilution to be depressed below 7.0, raised above 8.3, or changed more than 0.2 units from that which occurs naturally.

L. Wastewater constituents within the discharge shall not cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.

M. Wastewater constituents within the discharge shall not cause the concentration in marine sediments of substances listed in Table B of the 2005 California Ocean Plan to be increased above levels which would degrade indigenous biota.

N. Wastewater constituents within the discharge shall not cause the concentration of organic materials in marine sediments to increase above levels which would degrade marine life.

O. Wastewater constituents within the discharge shall not cause objectionable aquatic growths or degradation of indigenous biota resulting from the discharge of nutrients.

Biological Characteristics

P. Wastewater constituents within the discharge shall not cause degradation of marine communities, including vertebrate, invertebrate, and plant species.

Q. Wastewater constituents within the discharge shall not cause alteration of the natural tastes, odor, and color of fish, shellfish, or other marine resources used for human consumption.

R. Wastewater constituents within the discharge shall not cause the concentrations of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health.

Radioactivity

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

VI. PROVISIONS

A. Standard Provisions

1. **Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

B. Monitoring and Reporting Program Requirements

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

C. Special Provisions

1. Reopener Provisions

This permit may be reopened and modified in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA approved, new, federal or state water quality objective.

2. Pretreatment Specifications/Pollution Prevention Program

A Pretreatment Program or Pollution Prevention Program is a regulatory program administered by the Discharger to prevent the introduction of pollutants into the POTW (publicly owned treatment works) which will interfere with the operation of the treatment works, pass through the treatment facility, reduce opportunities to recycle and reuse municipal wastewater and sludge, or expose the POTW employees to hazardous chemicals. This permit implements pollution prevention requirements specified in 40 CFR Part 125.66(d) in lieu of the General Pretreatment Regulations specified in 40 CFR Part 403.

The Discharger shall implement an ongoing pollution prevention program (approved by the Central Coast Water Board) to prevent the introduction of incompatible pollutants into the treatment works. At a minimum, the program shall include:

a. Inventory all chemicals used for the operation and maintenance of the treatment plant that may enter the discharge and classify each according to its potential to cause toxicity to be present in the effluent. If toxicity data is not available for the chemicals used at the plant, and toxicity is found to be present in the effluent, the Discharger should conduct toxicity tests on the individual chemicals that potentially contribute to effluent toxicity.

b. Develop and implement a public educational program targeted at residential and commercial sources of toxic pollutants emphasizing the need to properly manage and minimize the disposal (i.e., source reduction) of potentially harmful pollutants (oil, antifreeze, pesticides, herbicides, paints, solvents, etc.).

c. Develop and implement program(s) which provide convenient means for people to properly dispose of (and/or recycle) oil, antifreeze, pesticides, herbicides, paints, solvents, and other potentially harmful chemicals.

d. Develop and implement waste minimization measures to reduce or eliminate incompatible pollutants discharged to the treatment plant. Waste minimization measures must address all significant controllable sources of pollutants including residential, industrial, and commercial sources.

e. On an annual basis, to be submitted with the annual report specified in the MRP, the Discharger shall submit a status report to USEPA and Central Coast Water Board detailing efforts of compliance with regard to the 'Pollution Prevention Program' requirements specified herein.

f. In order to provide adequate legal authority for the Discharger to protect its POTW and to evaluate sources of industrial discharges, the Discharger must perform the following activities:

   i. Develop and implement a sewer use ordinance to provide the legal authorities described in 40 CFR 403.8(f)(1).

   ii. Update annually (and summarized in the annual report) industrial waste survey as described in 40 CFR 403.8 (f)(2)(i)-(ii).

   iii. Update annually (and summarized in the annual report) potential impacts of industrial discharges, identified in D.1.f)2. above, upon the POTW. The report must address the need for regulation of industrial discharges to implement the objectives of the pollution prevention program.

   iv. If, in the evaluation of D.1.f)2. and D.1.f)3. above, the Executive Officer determines that a formal pretreatment program is necessary to adequately meet program objectives, then the Discharger shall develop such a program in accordance with 40 CFR 403.9.

   v. The Discharger shall comply, and ensure affected indirect Dischargers comply, with Paragraph No. D.1. of Standard Provisions and Reporting Requirements.

3. Biosolids Requirements

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

a. Management of all solids and sludge must comply with all requirements of 40 CFR Parts 257, 258, 501, and 503, including all monitoring, record-keeping, and reporting requirements. Since the State of California, hence the Regional and State Boards, has not been delegated the authority by the USEPA to implement the biosolids program, enforcement of biosolids requirements of CFR Part 503 will occur under USEPA's jurisdiction at this time.

b. All biosolids generated by the Discharger shall be used or disposed of in compliance with the applicable portions of:

   i. 40 CFR 503: for biosolids which are land applied (placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation), placed in surface disposal sites (placed on the land at dedicated land disposal sites or monofills for the purpose of disposal), stored, or incinerated;

   ii. 40 CFR 258: for biosolids disposed in municipal solid waste landfills; and,

   iii. 40 CFR 257: for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

c. 40 CFR 503 Subpart B (land application) applies to biosolids applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.

d. The Discharger is responsible for ensuring that all biosolids produced at its facility are used or disposed of in compliance with these regulations, whether the Discharger uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must meet under 40 CFR 257, 258, and 503.

e. Duty to mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal in violation of applicable regulations and/or which has a likelihood of adversely affecting human health or the environment.

f. No biosolids shall be allowed to enter wetlands or other waters of the United States.

g. Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.

h. Biosolids treatment, storage, use, or disposal shall not create a nuisance such as objectionable odors or flies.

i. The Discharger shall assure that haulers transporting biosolids off site for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained.

j. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all the requirements for surface disposal under 40 CFR 503 Subpart C, or must submit a written notification to USEPA with the information in Section 503.20(b), demonstrating the need for longer temporary storage.

k. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials at the site to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and from the highest tidal stage that may occur.

l. The discharge of biosolids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the State.

m. The Discharger shall design its pretreatment program local discharge limitations to achieve the metals concentration limits in 40 CFR 503.13 Table 3.

n. Inspection and Entry: The USEPA, Central Coast Water Board, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:

    i. Enter upon all premises where biosolids produced by the Discharger is treated, stored, used, or disposed, either by the Discharger or by another party to whom the Discharger transfers the biosolids for treatment, storage, use, or disposal;

    ii. Have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR 503, by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal, and;

    iii. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the biosolids treatment, storage, use, or disposal by the Discharger or by another party to whom the Discharger transfers the biosolids for treatment, storage, use, or disposal.

o. Monitoring shall be conducted in accordance with the Monitoring and Reporting Program (MRP) of this Order (see Attachment E):

p. All the requirements of 40 CFR 503 and 23 CCR, Division 3, Chapter 15, and 27 CCR, Division 2 are enforceable by the USEPA and this Central Coast Water Board whether or not the requirements are stated in an NPDES permit or any other permit issued to the Discharger.

4. Receiving Water Monitoring for Bacteria

If/when effluent limitations for total coliform bacteria are exceeded in consecutive monitoring events, the Discharger shall conduct surf zone monitoring for bacteria in accordance with Section VII.A. of the Monitoring and Reporting Program (Attachment E). Results of the increased monitoring for bacteria shall be summarized and submitted in a report to the Executive Officer.

5. Cat Litter Public Outreach Program

In accordance with its September 6, 2007 Biological Evaluation and letter to U.S. Fish and Wildlife, USEPA proposed that this permit include a public outreach program to minimize the input of cat litter-box waste into the municipal sewer system. This conservation measure, as proposed by USEPA, will reduce the likelihood of any possible adverse effects to brown pelican and southern sea otter. The Discharger shall develop and implement a cat litter public education program that includes, at a minimum, the following elements:

a. The Discharger will use existing public education efforts, such as periodic mailers accompanying utility bills, school visits, and distributing flyers at public forums involving wastewater issues, to communicate with the general public on the topic cat litter and waste disposal.

b. The Discharger will target specific commercial and professional establishments to ensure that appropriate policies and procedures are in place to properly disposal of cat waste. These establishments include, but are not limited to, veterinary clinics, animal hospitals, animal shelters, pet stores, and pet grooming companies. The Discharger will ensure that the aforementioned establishments develop and implement best management practices prohibiting the flushing of cat waste, post signage in appropriate working areas, as well as provide adequate training for all employees. The Discharger will periodically contact the known establishments to ensure cat waste disposal policies are in place.

VII. Compliance Determination

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

A. Average Monthly Effluent Limitation (AMEL).
If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Average Weekly Effluent Limitation (AWEL).
If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

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

ATTACHMENT A – DEFINITIONS

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

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

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

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

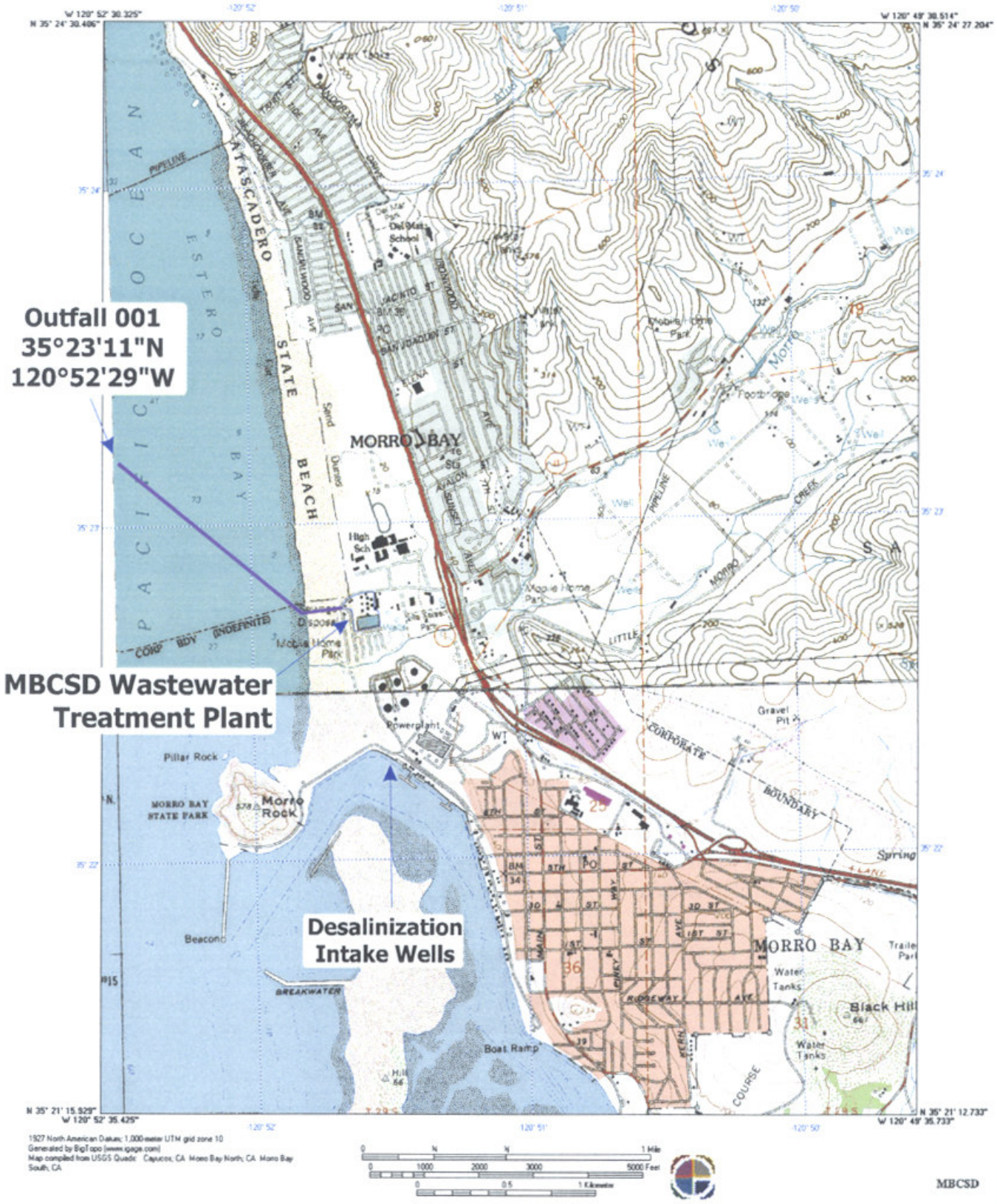
Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

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

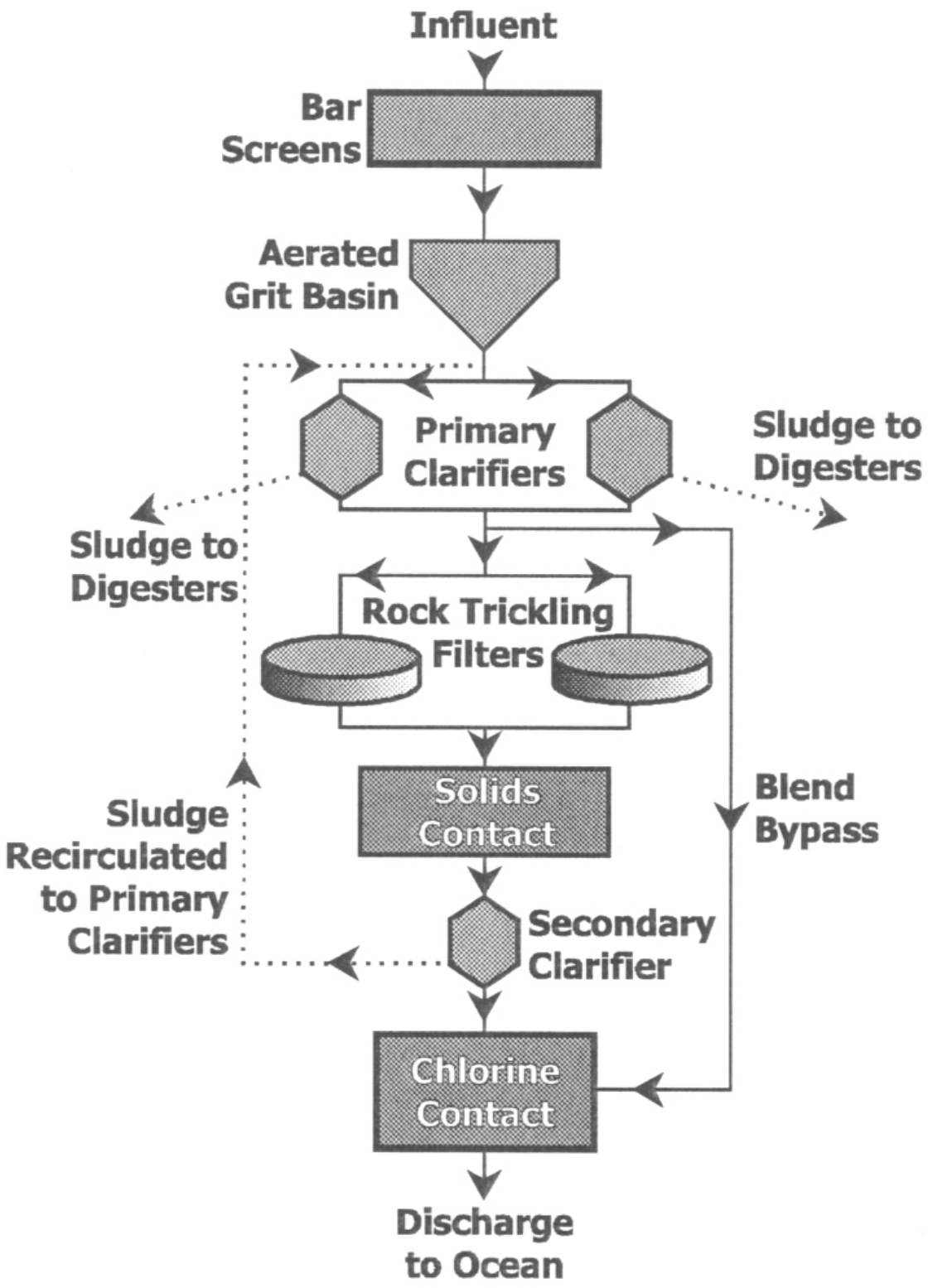
Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

ATTACHMENT B – TOPOGRAPHIC MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. FEDERAL STANDARD PROVISIONS

A. Federal Standard Provisions – Permit Compliance

1. Duty to Comply

a. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [40 CFR §122.41(a)].

b. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. [40 CFR §122.41(a)(1)].

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

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

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

5. Property Rights

a. This Order does not convey any property rights of any sort or any exclusive privileges [40 CFR § 122.41(g)].

b. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations [40 CFR §122.5(c)].

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

   a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR §122.41(i)(1)];

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR §122.41(i)(2)];

   c. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR §122.41(i)(3)]; and

   d. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [40 CFR §122.41(i)(4)].

7. **Bypass**

   a. Definitions

      i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 CFR §122.41(m)(1)(i)].

      ii. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 CFR §122.41(m)(1)(ii)].

   b. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Federal Standard Provisions – Permit Compliance I.A.7.c, I.A.7.d, and I.A.7.e below [40 CFR §122.41(m)(2)].

   c. Prohibition of bypass. Bypass is prohibited, and the Central Coast Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR §122.41(m)(4)(i)]:

      i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR §122.41(m)(4)(i)(A)];

ii. There were no feasible alternatives to the bypass, such as use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR §122.41(m)(4)(i)(B)]; and

iii. The Discharger submitted notice to the Central Coast Water Board as required under Federal Standard Provisions – Permit Compliance I.A.7.e below [40 CFR §122.41(m)(4)(i)(C)].

d. The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast Water Board determines that it will meet the three conditions listed in Federal Standard Provisions – Permit Compliance I.A.7.c above [40 CFR §122.41(m)(4)(ii)].

e. Notice

i. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR §122.41(m)(3)(i)].

ii. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Federal Standard Provisions - Reporting I.E.5 below (24-hour notice) [40 CFR §122.41(m)(3)(ii)].

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

a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Federal Standard Provisions – Permit Compliance I.A.8.b below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR §122.41(n)(2)].

b. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR §122.41(n)(3)]:

i. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 CFR §122.41(n)(3)(i)];

ii. The permitted facility was, at the time, being properly operated [40 CFR §122.41(n)(3)(ii)];

iii. The Discharger submitted notice of the upset as required in Federal Standard Provisions – Reporting I.E.5.b.ii below (24-hour notice) [40 CFR §122.41(n)(3)(iii)]; and

iv. The Discharger complied with any remedial measures required under Federal Standard Provisions – Permit Compliance I.A.3 above [40 CFR §122.41(n)(3)(iv)].

c. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 CFR §122.41(n)(4)].

B. Federal Standard Provisions – Permit Action

1. **General.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [40 CFR §122.41(f)].

2. **Duty to Reapply.** If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [40 CFR §122.41(b)].

3. **Transfers.** This Order is not transferable to any person except after notice to the Central Coast Water Board. The Central Coast Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code [40 CFR §122.41(l)(3); §122.61].

C. Federal Standard Provisions – Monitoring

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR §122.41(j)(1)].

2. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [40 CFR §122.41(j)(4); §122.44(i)(1)(iv)].

D. Federal Standard Provisions – Records

1. Records Retention.

Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time. (40 CFR §122.41(j)(2).)

2. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements [40 CFR §122.41(j)(3)(i)];

b. The individual(s) who performed the sampling or measurements [40 CFR §122.41(j)(3)(ii)];

c. The date(s) analyses were performed [40 CFR §122.41(j)(3)(iii)];

d. The individual(s) who performed the analyses [40 CFR §122.41(j)(3)(iv)];

e. The analytical techniques or methods used [40 CFR §122.41(j)(3)(v)]; and

f. The results of such analyses [40 CFR §122.41(j)(3)(vi)].

3. Claims of confidentiality for the following information will be denied [40 CFR §122.7(b)]:

a. The name and address of any permit applicant or Discharger [40 CFR §122.7(b)(1)]; and

b. Permit applications and attachments, permits and effluent data [40 CFR §122.7(b)(2)].

E. Federal Standard Provisions – Reporting

1. Duty to Provide Information. The Discharger shall furnish to the Central Coast Water Board, State Water Board, or USEPA within a reasonable time, any information which the Central Coast Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Coast Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [40 CFR §122.41(h); Water Code, §13267].

2. Signatory and Certification Requirements

a. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Federal Standard Provisions – Reporting I.E.2.b, I.E.2.c, I.E.2.d and I.E.2.e below [40 CFR §122.41(k)].

b. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with

environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [40 CFR §122.22(a)(1)].

c. All reports required by this Order and other information requested by the Central Coast Water Board, State Water Board, or USEPA shall be signed by a person described in Federal Standard Provisions – Reporting I.E.2.b above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   i. The authorization is made in writing by a person described in Federal Standard Provisions – Reporting I.E.2.b above [40 CFR §122.22(b)(1)];

   ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [40 CFR §122.22(b)(2)]; and

   iii. The written authorization is submitted to the Central Coast Water Board and State Water Board [40 CFR §122.22(b)(3)].

d. If an authorization under Federal Standard Provisions – Reporting I.E.2.c above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Coast Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].

e. Any person signing a document under Federal Standard Provisions – Reporting I.E.2.b or I.E.2.c above shall make the following certification:

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

3. Monitoring Reports

a. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [40 CFR §122.41(l)(4)].

b. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Coast Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [40 CFR §122.41(l)(4)(i)].

c. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Coast Water Board [40 CFR §122.41(l)(4)(ii)].

d. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 CFR §122.41(l)(4)(iii)].

4. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 CFR §122.41(l)(5)].

5. Twenty-Four Hour Reporting

a. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR §122.41(l)(6)(i)].

b. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR §122.41(l)(6)(ii)]:

i. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(A)].

ii. Any upset that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(B)].

c. The Central Coast Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 CFR §122.41(l)(6)(iii)].

6. **Planned Changes.** The Discharger shall give notice to the Central Coast Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR §122.41(l)(1)]:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) [40 CFR §122.41(l)(1)(i)]; or

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order [40 CFR §122.41(l)(1)(ii)].

   c. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 CFR §122.41(l)(1)(iii)].

7. **Anticipated Noncompliance.** The Discharger shall give advance notice to the Central Coast Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. [40 CFR §122.41(l)(2)].

8. **Other Noncompliance.** The Discharger shall report all instances of noncompliance not reported under Federal Standard Provisions – Reporting I.E.3, I.E.4, and I.E.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Federal Standard Provisions – Reporting I.E.5 above. [40 CFR §122.41(l)(7)].

9. **Other Information.** When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Coast Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [40 CFR §122.41(l)(8)]

F. Federal Standard Provisions – Enforcement

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

G. Additional Federal Provisions – Notification Levels

1. **Non-Municipal Facilities**. Existing manufacturing, commercial, mining, and silvicultural Discharger shall notify the Central Coast Water Board as soon as they know or have reason to believe [40 CFR §122.42(a)]:

   a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(1)]:

      i. 100 micrograms per liter (µg/L) [40 CFR §122.42(a)(1)(i)];

      ii. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4, 6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(1)(ii)];

      iii. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(1)(iii)]; or

      iv. The level established by the Central Coast Water Board in accordance with 40 CFR Section 122.44(f) [40 CFR §122.42(a)(1)(iv)].

   b. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" [40 CFR §122.42(a)(2)]:

      i. 500 micrograms per liter (µg/L) [40 CFR §122.42(a)(2)(i)];

      ii. 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(2)(ii)];

      iii. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(2)(iii)]; or

iv. The level established by the Central Coast Water Board in accordance with 40 CFR Section 122.44(f) [40 CFR §122.42(a)(2)(iv)].

2. **Publicly Owned Treatment Works (POTWs)**. All POTWs shall provide adequate notice to the Central Coast Water Board of the following [40 CFR § 122.42(b)]:

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

II. CENTRAL COAST REGION'S STANDARD PROVISIONS (JANUARY 1985)

A. Central Coast General Permit Conditions

1. Central Coast Standard Provisions – Prohibitions

a. Introduction of "incompatible wastes" to the treatment system is prohibited.

b. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.

c. Discharge of "toxic pollutants" in violation of effluent standards and prohibitions established under Section 307(a) of the Clean Water Act is prohibited.

d. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.

e. Introduction of pollutants into the collection, treatment, or disposal system by an "indirect discharger" that:

i. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,

ii. Flow through the system to the receiving water untreated; and,

iii. Cause or "significantly contribute" to a violation of any requirement of this Order, is prohibited.

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

2. Central Coast Standard Provisions – Provisions

a. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by Section 13050 of the California Water Code.

b. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.

c. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.

d. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.

e. Publicly owned wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23 of the California Administrative Code.

f. After notice and opportunity for a hearing, this order may be terminated for cause, including, but not limited to:

i. violation of any term or condition contained in this order;

ii. obtaining this order by misrepresentation, or by failure to disclose fully all relevant facts;

iii. a change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,

iv. a substantial change in character, location, or volume of the discharge.

g. Provisions of this permit are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.

h. After notice and opportunity for hearing, this order may be modified or revoked and reissued for cause, including:

i. Promulgation of a new or revised effluent standard or limitation;

ii. A material change in character, location, or volume of the discharge;

iii. Access to new information that affects the terms of the permit, including applicable schedules;

iv. Correction of technical mistakes or mistaken interpretations of law; and,

v. Other causes set forth under Sub-part D of 40 CFR Part 122.

i. Safeguards shall be provided to assure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operating procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the affect of accidental discharges shall:

i. identify possible situations that could cause "upset", "overflow" or "bypass", or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.)

ii. evaluate the effectiveness of present facilities and procedures and describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.

j. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.

k. Production and use of reclaimed water is subject to the approval of the Board. Production and use of reclaimed water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Administrative Code and Chapter 7, Division 7, of the California Water Code. An engineering report pursuant to section 60323, Title 22, of the California Administrative Code is required and a waiver or water reclamation requirements from the Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

B. Central Coast Standard Provisions – General Monitoring Requirements

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

   For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions II.F.13.). If suspended solids are monitored weekly and

results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions II.F.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the State Department of Health Services for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Resources Control Board and the State Department of Fish and Game. If the laboratory used or proposed for use by the discharger is not certified by the California Department of Health Services or, where appropriate, the Department of Fish and Game due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:

   a. Data results remain consistent with results of samples analyzed by the Central Coast Water Board;

   b. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Central Coast Water Board; and,

   c. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.

3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.

4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

C. Central Coast Standard Provisions – General Reporting Requirements

1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:

   a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).

   b. A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).

c. A description of the sampling procedures and preservation sequence used in the survey.

d. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to (Central Coast Standard Provisions – Definitions II.B.1 above, and Federal Standard Provision – Monitoring I.C.1. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.

e. A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.

2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.

3. The "Discharger" shall file a report of waste discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.

4. Within 120 days after the discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Central Coast Water Board. The report shall include:

   a. the best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,

   b. a schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

   In addition to complying with Federal Standard Provision – Reporting I.E.2, the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

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

   California Regional Water Quality Control Board

Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

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

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

6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing "Discharger" and proposed "Discharger" containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action IB.3.

7. Except for data determined to be confidential under Section 308 of the Clean Water Act (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of EPA. Please also see Federal Standard Provision – Records I.D.3.

8. By April 1st of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The discharger shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge into full compliance. The report shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall inform the Board of the date of the Facility's Operation and Maintenance Manual (including contingency plans as described Central Coast Standard Provision – Provision II.A.2.i), of the date the manual was last reviewed, and whether the manual is complete and valid for the current facility. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with effluent limits and provide a summary of performance relative to Section B above, General Monitoring Requirements.

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

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

D. Central Coast Standard Provisions – General Pretreatment Provisions

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:

   a. By the date specified therein;

   b. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,

   c. If a new indirect discharger, upon commencement of discharge.

E. Central Coast Standard Provisions – Enforcement

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed $5,000 per day.

2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

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

1. A “composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.

2. “Daily Maximum” limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples” except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a “grab sample”.

3. “Discharger", as used herein, means, as appropriate: (l) the Discharger, (2) the local sewering entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger”, it refers to the discharger.)

4. “Duly Authorized Representative" is one where:

   a. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision I.E.2;

   b. the authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,

   c. the written authorization was submitted to the Central Coast Water Board.

5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples" shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in Central Coast Standard Provision – Provision II.F.2 and instantaneous maximum limits.

6. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

7. "Incompatible wastes" are:

   a. Wastes which create a fire or explosion hazard in the treatment works;

   b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;

   c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;

   d. Any waste, including oxygen demanding pollutants (BOD, etc), released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,

   e. Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40°C (104°F) unless the treatment works is designed to accommodate such heat.

8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

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

   Log Mean = (C1 x C2 x...x Cn)1/n

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

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

    mass emission rate (lbs/day) = 8.34 x Q x C; and,

    mass emission rate (kg/day) = 3.79 x Q x C,

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

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

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

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

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

    Average = (Xl + X2 + ... + Xn) / n

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

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

16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

17. "Pollutant-free wastewater" means inflow and infiltration, storm waters, and cooling waters and condensates which are essentially free of pollutants.

18. "Primary Industry Category" means any industry category listed in 40 CFR Part 122, Appendix A.

19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using "Monthly averages" of pollutant concentrations (C, in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

    $C_{Effluent}$ Removal Efficiency (%) = l00 x (l – $C_{effluent}$ / $C_{influent}$)

20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in

the absence of a "bypass". It does not mean economic loss caused by delays in production.

21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.

22. To "significantly contribute" to a permit violation means an "indirect discharger" must:

    a. Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by Federal, State, or Local law;

    b. Discharge wastewater which substantially differs in nature or constituents from its average discharge;

    c. Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or

    d. Discharge pollutants, either alone or in conjunction with pollutants from other sources, that increase the magnitude or duration of permit violations.

23. "Toxic Pollutant" means any pollutant listed as toxic under Section 307 (a) (1) of the Clean Water Act or under 40 CFR Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions I.E.5.).

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

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Central Coast Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and California regulations.

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

I. GENERAL MONITORING PROVISIONS

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

A. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with CWC section 13176, and must include quality assurance/quality control data with their reports.

B. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Central Coast Water Board.

C. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.

1. A Guide to Methods and Standards for the Measurement of Water Flow, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

2. Water Measurement Manual, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)

3. Flow Measurement in Open Channels and Closed Conduits, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

4. NPDES Compliance Sampling Manual, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.

F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005). Analyses for toxics listed in Table B of the California Ocean Plan (2005) shall adhere to guidance and requirements contained in that document. The Minimum Levels identified in the 2005 Ocean Plan represent the lowest concentration of a pollutant that can be quantitatively measured in a sample given the current state of performance in analytical chemistry methods in California.

II. MONITORING LOCATIONS

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

Monitoring Location Name	Description	Latitude	Longitude	Distance from Reference
M-INF	Influent, upstream of any in-plant return flows	--	--	--
M-001	Effluent, downstream of any inplant return flows or disinfection units (Discharge Point 001)	35° 22' 47" N	120° 51' 40" W	--
Surf Zone Monitoring Locations				**Along-Shore Distance and Direction from Location SZ-C**
SZ-A1	Upcoast Reference	35º 23'58" N	120º 52'07" W	1330 m (4363 ft) N
SZ-A	Upcoast Midfield	35º 23'45" N	120º 52'04" W	912 m (2992 ft) N
SZ-B	Upcoast Nearfield	35º 23'31" N	120º 52'00" W	488 m (1602 ft) N
SZ-C	Onshore of Diffuser	35º 23'15" N	120º 51'57" W	0
SZ-D	Downcoast Nearfield	35º 23'02" N	120º 51'55" W	426 m (1398 ft) S
SZ-E	Downcoast Midfield	35º 22'46" N	120º 51'54" W	922 m (3026 ft) S
SZ-F	Downcoast Reference	35º 22'24" N	120º 51'53" W	1602 m (5250 ft) S
SZ-G	Morro Creek immediately before flowing to the ocean	--	--	--
Receiving Water (Ocean) Monitoring Locations				**Distance from Diffuser Center (m)**
RW-1	Upcoast Midfield	35° 23.253' N	120° 52.504' W	100
RW-2	Upcoast Nearfield	35° 23.231' N	120° 52.504' W	60
RW-3	Upcoast ZID	35° 23.210' N	120° 52.504' W	20

Monitoring Location Name	Description	Latitude	Longitude	Distance from Reference
RW-4	Downcoast ZID	35° 23.188' N	120° 52.504' W	20
RW-5	Downcoast Nearfield	35° 23.167' N	120° 52.504' W	60
RW-6	Downcoast Midfield	35° 23.145' N	120° 52.504' W	100
Benthic Monitoring Locations				**Distance from Diffuser Center (m)**
B-2	Upcoast Reference	35° 23.280' N	120° 52.504' W	150
B-3	Upcoast Nearfield	35° 23.231' N	120° 52.504' W	60
B-4	Upcoast ZID	35° 23.210' N	120° 52.504' W	20
B-5	Downcoast ZID	35° 23.188' N	120° 52.504' W	20
B-6	Downcoast Nearfield	35° 23.167' N	120° 52.504' W	60
B-7	Downcoast Reference	35° 23.118' N	120° 52.504' W	150

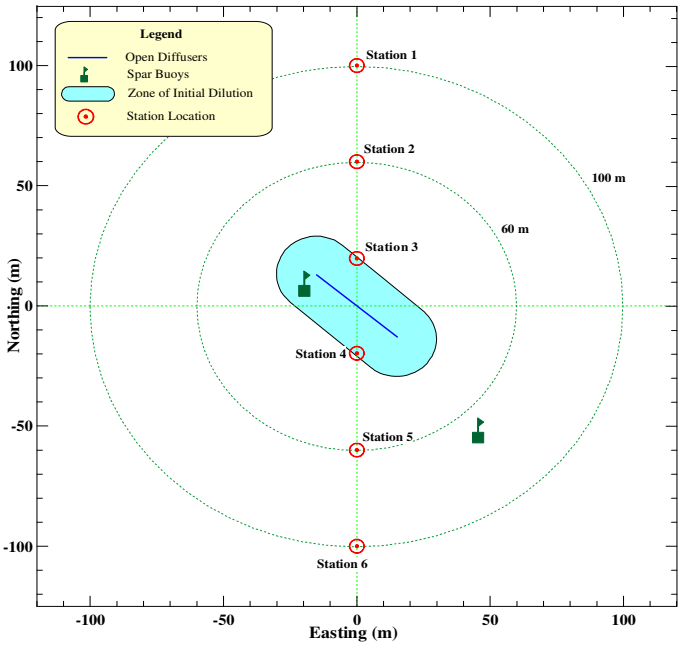

Figure 1: Vertical Receiving Water (Ocean) Monitoring Locations

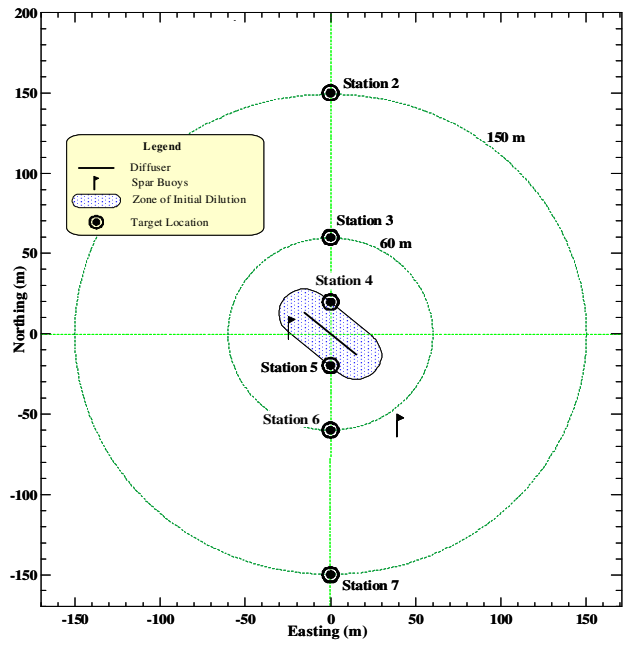

Figure 2: Benthic Monitoring Stations

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-INF

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

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Daily Flow	MG	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
BOD_5 (20°C)	mg/L	24-hr Composite	Weekly
Suspended Solids	mg/L	24-hr Composite	Weekly

2. Effluent flow metering shall be reported in place of influent flow metering when the flume is surcharged.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001

The Discharger shall monitor representative effluent samples (downstream of any in-plant return flows or disinfection units) at M-001, as follows:

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Total Chlorine Residual	mg/L	Grab	Daily
Chlorine Usage	lbs/day	Recorded	Daily
Total Coliform	MPN	Grab	5 days/week[1]
Temperature	°C	Grab	5 days/week[1]
Turbidity	NTU	Grab	5 days/week[1]
BOD_5 (20°C)	mg/L	24-hr Composite	Weekly[1]
Suspended Solids	mg/L	24-hr Composite	Weekly[1]
pH	pH units	Grab	Weekly[1]
Settleable Solids	mL/L	Grab	Weekly
Grease and Oil	mg/L	Grab	Weekly
Chronic toxicity[2]	TUc[3]	24-hr Composite	Semiannually (Jan/July)

[1] Sampling shall be arranged so that each day of the 7-day week is represented, at least once, each month, or every two months for weekly sampling. For samples collected five times per month, at least one 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 months.

[2] See MRP Section V, *Whole Effluent Toxicity Testing Requirements*, below.

Parameter	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Ammonia (as N)	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Semiannually (Jan/July)
Urea (as N)	mg/L	Grab	Semiannually (Jan/July)
Ortho-Phosphate (as P)	mg/L	Grab	Semiannually (Jan/July)
Dissolved Silica (SiO_2)	mg/L	Grab	Semiannually (Jan/July)

PROTECTION OF MARINE AQUATIC LIFE

Parameter	Units	Type of Sample	Minimum Frequency of Sampling/Analysis	Minimum Levels[4] (µg/L)
Arsenic	mg/L	24-hr. Composite	Semi-annually	All methods contained in Table II-3 of 2005 Ocean Plan, with exception to the Direct Current Plasma method
Cadmium	mg/L	" "	" "	" "
Chromium(Hex)[5]	mg/L	" "	" "	" "
Copper	mg/L	" "	" "	" "
Lead	mg/L	" "	" "	" "
Mercury	µg/L	" "	" "	" "
Nickel	mg/L	" "	" "	" "
Selenium	mg/L	" "	" "	" "
Silver	mg/L	" "	" "	" "
Zinc	mg/L	" "	" "	" "
Cyanide	mg/L	" "	" "	" "
Phenolic Compounds	mg/L	Grab	Annually	See Table II-2 of 2005 Ocean Plan

[4] Minimum Levels (taken from Appendix II of the 2001 California Ocean Plan) represent the lowest quantifiable concentration in a sample based on the proper application of method-specific analytical procedures and the absence of matrix interferences.

The Discharger must instruct their laboratory to establish calibration standards so that the Minimum Level is the lowest calibration standard. At no time is the Discharger to use analytical date derived from extrapolation beyond the lowest point in the calibration curve.

The Discharger must report with each sample result the reported Minimum Level and the laboratory's current Method Detection Limit (MDL).

Discharger must report analytical results using the following protocols:

1. Sample results greater than or equal to the reported Minimum* Level must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample).
2. Sample results less than the reported Minimum Level, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").
3. Sample results less than the laboratory's MDL must be reported as "Not Detected", or ND.

[5] Discharger may at their option meet this limitation as total chromium limitation.

(non-chlorinated)				
Chlorinated Phenolics	mg/L	" "	" "	" "
Endosulfan[6]	µg/L	24-hr. Composite	" "	0.01
Endrin	µg/L	" "	" "	0.01
HCH[7]	µg/L	" "	" "	See Table II-4 of 2005 Ocean Plan
Radionuclide	pCi/L	" "	" "	--

[6] Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
[7] HCH shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

PROTECTION OF HUMAN HEALTH – NONCARCINOGENS[8]

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Acrolein	mg/L	24-hr. Composite	Annually	2	5
Antimony	g/L	" "	" "	All methods contained in Table II-3 of 2005 Ocean Plan	
Bis(2-chloroethoxy) Methane	mg/L	" "	" "	--	5
Bis(2-chloroisopropyl) Ether	g/L	" "	" "	10	2
Chlorobenzene	mg/L	" "	" "	0.5	2
Chromium (III)	g/L	" "	" "	See Table II-3 of 2005 Ocean Plan	
Di-n-butyl Phthalate	g/L	" "	" "	--	10
Dichlorobenzenes[9]	g/L	" "	" "	See Table II-2 of 2005 Ocean Plan	
Diethyl Phthalate	g/L	" "	" "	10	2
Dimethyl Phthalate	g/L	" "	" "	10	2
4,6-dinitro-2-methylphenol	mg/L	" "	" "	10	5
2,4-dinitrophenol	mg/L	" "	" "	5	5
Ethylbenzene	g/L	" "	" "	0.5	2
Fluoranthene	mg/L	" "	" "	10	1
Hexachlorocyclopentadiene	mg/L	" "	" "	5	5
Isophorone	g/L	" "	" "	10	1
Nitrobenzene	mg/L	" "	" "	10	1

[8] After results are reported, the Discharger may request to the Regional Board and USEPA that only those parameters detected during the first year of sampling be analyzed during the remainder of the permit.
[9] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Thallium	mg/L	" "	" "	See Table II-3 of 2005 Ocean Plan	
Toluene	g/L	" "	" "	0.5	2
Tributyltin	µg/L	" "	" "	--	--
1,1,1-trichloroethane	g/L	" "	" "	0.5	2
1,1,2-trichloroethane	mg/L	" "	" "	0.5	2

PROTECTION OF HUMAN HEALTH – CARCINOGENS[8]

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Acrylonitrile	µg/L	24-hr. Composite	Annually	2	2
Aldrin	ng/L	" "	" "	0.005	--
Benzene	mg/L	" "	" "	0.5	2
Benzidine	ng/L	" "	" "	--	5
Beryllium	µg/L	" "	" "	All methods contained in Table II-3 of 2005 Ocean Plan, with exception to the Direct Current Plasma and Flame Atomic Absorption methods	
Bis(2-chloroethyl) Ether	µg/L	" "	" "	--	1
Bis(2-ethylhexyl) Phthalate	mg/L	" "	" "	10	5

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Carbon tetrachloride	mg/L	" "	" "	0.5	2
Chlordane[10]	ng/L	" "	" "	0.1	--
Chlorodibromomethane	µg/L	" "	" "	0.5	2
Chloroform	mg/L	" "	" "	0.5	2
DDT[11]	ng/L	" "	" "	See Table II-4 of 2005 Ocean Plan	
1,4-dichlorobenzene	mg/L	" "	" "	See Table II-1 and II-2 of 2005 Ocean Plan	
3,3-dichlorobenzidine	µg/L	" "	" "	--	5
1,2-dichloroethane	mg/L	" "	" "	0.5	2
1,1-dichloroethylene	mg/L	" "	" "	0.5	2
Dichlorobromomethane	µg/L	" "	" "	0.5	2
Dichloromethane	mg/L	" "	" "	0.5	2
1,3-dichloropropene	mg/L	" "	" "	See Table II-1 and II-2 of 2005 Ocean Plan	
dieldrin	ng/L	" "	" "	0.01	--
2,4-dinitrotoluene	mg/L	" "	" "	10	5
1,2-diphenylhydrazine	µg/L	" "	" "	--	1
Halomethanes[12]	mg/L	" "	" "		
Heptachlor	µg/L	" "	" "	0.01	--

[10] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[11] DDT shall mean the sum of 4,4-DDT, 2,4-DDT, 2,4-DDE, 4,4-DDD, and 2,4-DDD.
[12] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Heptachlor epoxide	µg/L	" "	" "	0.01	--
Hexachlorobenzene	ng/L	" "	" "	--	1
Hexachlorobutadiene	mg/L	" "	" "	5	1
Hexachloroethane	mg/L	" "	" "	5	1
N-nitrosodimethylamine	mg/L	" "	" "	10	5
N-nitrosodi-N-propylamine	mg/L	" "	" "	10	5
N-nitrosodiphenylamine	mg/L	" "	" "	10	1
PAHs[13]	µg/L	" "	" "	See Appendix II of 2005 Ocean Plan	
PCBs[14]	ng/L	" "	" "	See Table II-4 of 2005 Ocean Plan	
TCDD equivalents[15]	pg/L	" "	" "	--	--
1,1,2,2-tetrachloroethane	g/L	" "	" "	0.5	2
Tetrachloroethylene	mg/L	" "	" "	0.5	2
Toxaphene	ng/L	" "	" "	0.5	--

[13] 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.

[14] 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.

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

Parameter	Units	Type of Sample	Minimum Frequency of Analysis	Minimum Levels (µg/L)	
				Gas Chromatography Method	Gas Chromatograpy / Mass Spectrometry Method
Trichloroethylene	mg/L	" "	" "	0.5	2
2,4,6-trichlorophenol	µg/L	" "	" "	10	10
Vinyl Chloride	mg/L	" "	" "	0.5	2

B. Mass Emission Goals

The Discharger shall report the mass emission rates for all constituents that have mass emission effluent goals listed below, and the flow used to calculate the mass emission rates for each constituent. Annual mass emissions will be compared to performance based mass emission goals. For compounds with detectable concentrations, exceedances of performance-based mass emission goals shall be considered indicative of a statistically significant increase in loading and will trigger an antidegradation analysis in the following permit cycle.

OBJECTIVES FOR THE PROTECTION OF MARINE LIFE

Constituent	Value	Units
Arsenic[16]	17	kg/yr
Cadmium	88	kg/yr
Chromium	93	kg/yr
Copper[16]	690	kg/yr
Lead	465	kg/yr
Mercury	1.4	kg/yr
Nickel	142	kg/yr
Selenium	65	kg/yr
Silver	28	kg/yr
Zinc[16]	244	kg/yr
Cyanide, Total[16]	71	kg/yr
Endosulfan	3	kg/yr
Endrin	1	kg/yr
HCH	228	kg/yr

[16] The performance-based mass emission goal was determined from the 99th percentile of historically detected effluent concentrations, and a flow of 2.06 MGD.

OBJECTIVES FOR THE PROTECTION OF HUMAN HEATH – NONCARCINOGENS

Constituent	Value	Units
Acrolein	--	--
Antimony	285	kg/yr
Bis(2-chloroethoxy) methane	142	kg/yr
Bis(2-chloroisopropyl)ether	--	--
chlorobenzene	--	--
Chromium III	--	--
Di-n-butyl phthalate	142	kg/yr
Dichlorobenzene	5.7	kg/yr
1,1-Dichloroethene	3	kg/yr
Diethyl phthalate	191	kg/yr
Dimethyl phthalate	142	kg/yr
2-Methyl-4,6-dinitrophenol	142	kg/yr
2,4-Dinitrophenol	342	kg/yr
Ethylbenzene	3	kg/yr
Fluoranthene	142	kg/yr
hexachlorocyclopentadiene	--	--
Isophorone	142	kg/yr
Nitrobenzene	142	kg/yr
Thallium	285	kg/yr
Toluene[16]	4	kg/yr
1,1,2,2-Tetrachloroethane	3	kg/yr
1,1,1-Trichloroethane (TCA)	3	kg/yr
1,1,2-Trichloroethane	3	kg/yr

OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH – CARCINOGENS

Constituent	Value	Units
Acrylonitrile	--	--
Aldrin	0.01	kg/yr
Benzene[16]	12	kg/yr
Benzidine	0.03	kg/yr
Beryllium	28	kg/yr
Bis (2-chloroethyl) Ether	17	kg/yr
Bis(2-ethylhexyl) Phthalate	320	kg/yr
Carbon Tetrachloride	3	kg/yr
Chlordane	8.8	g/yr
Chloroform[16]	5	kg/yr
DDT	60	g/yr
1,4-Dichlorobenzene	57	kg/yr
3,3-Dichlorobenzidine	3.1	kg/yr
1,2-Dichloroethane	3	kg/yr

Constituent	Value	Units
dichloromethane	--	--
1,3-dichloropropene	--	--
Dieldrin	0.02	kg/yr
2,4-Dinitrotoluene	142	kg/yr
1,2-Diphenylhydrizine	60	kg/yr
Halomethanes[16]	25	kg/yr
Heptachlor	0.27	kg/yr
Hexachlorobenzene	0.08	kg/yr
Hexachlorobutadiene	142	kg/yr
Hexachloroethane	142	kg/yr
N-Nitrosodimethylamine	342	kg/yr
N-Nitrosodiphenylamine	142	kg/yr
PAHs	3.4	kg/yr
PCBs	7.3	g/yr
Dibenzofuran	57	kg/yr
Dioxin (Total TCDD equivalents)	1.48	mg/yr
Tetrachloroethene[16]	4	kg/yr
Toxaphene	0.08	kg/yr
Trichloroethene (TCE)	3	kg/yr
2,4,6-Trichlorophenol	114	kg/yr
Vinyl Chloride	3	kg/yr

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

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

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

Chronic Toxicity (TUc) = 100/NOEL.

The no observed effect level (NOEL) is the maximum tested concentration in a medium which does not cause known adverse effects upon chronic exposure in the

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

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

A minimum of three test species with approved test protocols shall be used to measure compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period of no fewer than three tests, monitoring can be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

Table E-4. Approved Tests—Chronic Toxicity

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

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

2 - Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic

Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. USEPA Report No. EPA/600/R-95/136.

b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms. USEPA Report No. EPA-600-4-91-003.

c. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ.

d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1998. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

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

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

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

a. toxicity test results,

b. dates of sample collection and initiation of each toxicity test, and

c. acute and/or chronic toxicity discharge limitations (or value).

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

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

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

a. Findings of the TRE or other investigation to identify the cause(s) of toxicity,

b. Actions the Discharger has taken/will take, to mitigate the impact of the discharge and to prevent the recurrence of toxicity.

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

B. Toxicity Identification / Reduction Evaluations

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

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

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

1. Actions that will be taken to investigate/identify the causes/sources of toxicity,

2. Actions that will be evaluated to mitigate the impact of the discharge, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken), and

3. A schedule under which these actions will be implemented.

When monitoring measures toxicity in the effluent above the limitation established by this Order, the Discharger shall resample immediately, if the discharge is continuing, and retest for whole effluent toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer (EO) as soon as possible following receipt of monitoring results. The EO will determine whether to

initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. The Discharger shall conduct a TRE giving due consideration to guidance provided by the *USEPA's Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3* (EPA document nos. EPA 600/3-88/034, 600/3-88/035, and 600/3-88/036, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

Table 11. Toxicity Reduction Evaluation—Schedule

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

VI. RECLAMATION MONITORING REQUIREMENTS

The Discharger shall comply with applicable State and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the DHS at title 22, sections 60301 - 60357 of the CCR, Water Recycling Criteria.

VII. RECEIVING WATER MONITORING REQUIREMENTS

A. Surf-Zone Monitoring

Surf-zone monitoring locations are described in Section II, *Monitoring Locations*, above. Surf zone monitoring is conducted to assess bacteriological conditions in areas used for body-contact sports (e.g. surfing) and where shellfish may be harvested for human consumption and to assess aesthetic conditions for general recreational uses (e.g., picnicking, boating, etc.). "Grab samples shall be taken at all surf-zone monitoring stations whenever effluent Total Coliform bacteria in effluent exceeds 2400 MPN/100 mL. Such monitoring shall continue daily for four consecutive days or until effluent returns to compliance with the 30-day median of 23 MPN/100 mL, whichever is longer. The Executive Officer or USEPA may require daily surf-zone monitoring to continue beyond four days if deemed necessary to determine compliance with receiving water limitations. Sampling shall be conducted during daylight hours, one to three hours prior

to peak high tide (i.e., incoming tide). The sample shall be collected as far seaward within the surf zone as possible. Samples shall be analyzed for Total and Fecal Coliform[17,18], and Enterococcus[19], and reported in units of MPN/100 mL.

Monitoring shall also include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), waves, longshore currents (e.g., direction), and tidal conditions (e.g., rising tide, slack). Observations of water discoloration, floating oil and grease, turbidity, odor and materials of sewage origin in the water or on the beach shall be recorded. The water temperature (Celsius) shall also be recorded.

B. Receiving Water (Ocean) Monitoring

Ocean monitoring locations are described in Section II, *Monitoring Locations*, above. 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 0.3 meters below the surface, 3 meter intervals within the water column, and 2 meters above the seabed.

In addition to the vertical profiling conducted at the six fixed stations, a receiving-water survey shall be conducted by continuously towing an electronic instrumentation package at two depths around and across the zone of initial dilution. One survey shall be conducted in the upper water column, near the base of the shallow thermocline. Another survey shall be conducted immediately above the benthic boundary layer, approximately 5 meters above the bottom. The towed instrumentation package shall pass over the zone of initial dilution at least five times during the survey. Vessel speed and sampling rates shall be sufficient to collect at least one sample for every meter traversed.

Water sampling shall be collected between the hours of 6 AM and 6 PM at all receiving water monitoring stations and analyzed as follows:

Constituent	Units	Sample Type	Minimum Frequency of Sampling/Analysis
Floating Particulates	Visual	Surface	Quarterly
Grease and Oil	Visual	Surface	Quarterly
Discoloration	Visual	Surface	Quarterly

[17] For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 2 to 16,000 MPN/100mL. The detection methods used for each analysis shall be reported with the results of the analysis.

[18] Detection methods used for Total and Fecal Coliform shall be those presented in the most recent edition of Standard Methods for the Examination of Water and Wastewater or any improved method approved by USEPA and determined appropriate by the Executive Officer.

[19] Detection methods used for Enterococcus shall be those presented in EPA publication EPA 600/4-85/076, "Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure", or any improved method approved by EPA and determined appropriate by the Executive Officer.

Natural light and/or total irradiance	Light transmissivity and/or total irradiance	Entire water column	Quarterly
Dissolved Oxygen	mg/L	Entire water column	Quarterly
pH	units	Entire water column	Quarterly
Salinity	ppt	Entire water column	Quarterly
Temperature	°C	Entire water column	Quarterly

VIII. BENTHIC MONITORING

A. Benthic Sediment Monitoring

Benthic monitoring locations are described in Section II, *Monitoring Locations*, above. Benthic monitoring shall 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. Sediment monitoring shall be conducted annually, in October. Three grab samples shall be collected using a 0.1 m2 Van Veen grab sampler at each benthic monitoring station. A composite of these three samples should be analyzed as follows:

Parameter	Units	Minimum Frequency of Sampling/Analysis
Sediment particle size	phi size (% volume)	Annually
Organic Matter	volatile solids or TOC (mg/kg)	Annually
Biochemical Oxygen Demand	mg/L	Annually
Total Kjeldahl Nitrogen	mg/L	Annually
Grease and oil	mg/L	Annually
Aluminum	µg/kg	Annually
Iron	µg/kg	Annually
Arsenic	µg/kg	Annually
Cadmium	µg/kg	Annually
Total Chromium	µg/kg	Annually
Copper	µg/kg	Annually
Lead	µg/kg	Annually
Mercury	µg/kg	Annually
Nickel	µg/kg	Annually
Silver	µg/kg	Annually
Zinc	µg/kg	Annually

Parameter	Units	Minimum Frequency of Sampling/Analysis
Nonchlorinated Phenolics	µg/kg	Once in the life of permit (2009)
Chlorinated Phenolics	µg/kg	Once in the life of permit (2009)
Aldrin	µg/kg	Once in the life of permit (2009)
Dieldrin	µg/kg	Once in the life of permit (2009)
Chlordane	µg/kg	Once in the life of permit (2009)
DDT, DDE, DDD	µg/kg	Once in the life of permit (2009)
Endrin	µg/kg	Once in the life of permit (2009)
PAHs	µg/kg	Once in the life of permit (2009)
PCBs	µg/kg	Once in the life of permit (2009)
Toxaphene	µg/kg	Once in the life of permit (2009)

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 USEPA Priority Pollutants and 301(h) Pesticides in Estuarine and Marine Sediments (EPA 503-6-90-004), 1986).

All sediment metal chemistry 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.

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

Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods.

B. Benthic Community Monitoring

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

1. Collection: Five replicate samples shall be collected at each station using a 0.1 m^2 Van Veen grab sampler.

2. For benthic infauna analyses, each replicate sample shall be passed through a 1 mm screen, and the organisms retained and preserved as appropriate for subsequent identification. It is recommended that sample preservation, sample processing, and data analyses be conducted according to Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA 430/9-86-004, 1987).

3. Benthic infauna from each replicate sample shall be counted and identified to the lowest possible taxon. For each replicate sample, number of individuals, number of species, and number of individuals per species, and within each major taxonomic group (polychaetes, molluscs, crustaceans, echinoderms, and all other macroinvertebrates) shall be recorded.

4. The annual report shall include a complete discussion of benthic infaunal survey results and (possible) influence of the outfall on benthic infauna communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns. Temporal trends in the number of individuals, number of species, number of individuals per species, and community structure indices, species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's Index (SI), Swartz's dominance, and Infaunal Trophic Index (ITI) shall be reported. 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.

IX. BIOSOLIDS MONITORING

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

1. A representative sample of residual solids (biosolids) shall be obtained from the last point in the handling process (i.e., in the drying beds just prior to removal). All

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

Table E-6. Amount of Biosolids and Frequency for Analysis

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

1 - For land application, either the amount of bulk biosolids applied to the land or the amount prepared for sale or give-away in a bag or other container for application to the land (dry weight basis). If the Discharger's biosolids are directly land applied without further treatment by another preparer, biosolids shall also be tested for organic-N, ammonium-N, and nitrate-N at the frequencies required. For surface disposal, the amount of biosolids placed on an active sludge unit (dry weight basis).
2 - Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

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

Table E-7. Biosolids Monitoring

Constituent	**Units**	**Type of Sample**	**Sampling/Analysis Frequency**
Quantity Removed	Tons or yds^3	Measured	Continual
Pathogen Density			per 40 CFR 503
Location of Reuse/Disposal	General Public or Specific Site		
Moisture Content	%	Grab	Annually
pH	Standard Units	Grab	Annually
Total Kjedldahl Nitrogen	mg/kg (dry)[1]	Grab	Annually
Ammonia(N)	mg/kg	Grab	Annually

Nitrate(N)	mg/kg	Grab	Annually
Total Phosphorus	mg/kg	Grab	Annually
Grease and Oil	mg/kg	Grab	Annually
Arsenic	mg/kg	Grab	Annually
Boron	mg/kg	Grab	Annually
Cadmium	mg/kg	Grab	Annually
Copper	mg/kg	Grab	Annually
Chromium (Hexavalent)	mg/kg	Grab	Annually
Lead	mg/kg	Grab	Annually
Mercury	mg/kg	Grab	Annually
Molybdenum	mg/kg	GRab	Annually
Nickel	mg/kg	Grab	Annually
Selenium	mg/kg	Grab	Annually
Silver	mg/kg	Grab	Annually
Zinc	mg/kg	Grab	Annually
Priority Pollutants (excluding asbestos)	mg/kg	Grab	Annually

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

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

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

3. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR 503.33(b).

4. Class 1 facilities (facilities with pretreatment programs or others designated as Class1 by the regional Administrator) and Federal facilities with greater than five MGD influent flow shall sample biosolids for pollutants listed under Section 307(a) of the CWA (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and Federal facilities greater than 5 MGD shall test dioxins/dibenzofurans using a detection limit of less than one pg/g at the time of their next priority pollutant scan if they have not done so within the past five years, and once per five years thereafter.

5. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness. All constituents regulated under CCR Title 22, division 5, chapter 11, article 3 shall be analyzed for comparison with Total Threshold Limit Concentration (TTLC) criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the Soluble Threshold Limit Concentration Limit Concentration (STLC) limit for that substance.

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

7. Biosolids placed in a municipal landfill shall be tested by the Paint Filter Liquids Test (EPA Method 9095) at the frequency determined by Table E-8, or more often if necessary to demonstrate that there are no free liquids.

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

    a. *Notification of non-compliance*. The Discharger shall notify EPA Region 9, the Central Coast Water Board, and the Regional Board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify EPA Region 9 and the affected Regional Water Quality Boards of any non-compliance in writing within five working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify EPA Region 9 and the affected Regional Water Quality Boards of any non-compliance within the same time frames.

    b. If biosolids are shipped to another State or Indian lands, the Discharger must send notice at least 60 days prior to the shipment to the permitting authorities in the receiving State or Indian land (the EPA Regional Office for that area and the State/Indian authorities).

c. *For land application (in cases where Class B biosolids are directly applied without further treatment):* Prior to reuse of any biosolids from the Discharger's facility to a new or previously unreported site, the Discharger shall notify EPA, the Central Coast Water Board, and any other affected Regional Water Quality Board. The notification shall include description of the crops or vegetation to be grown, proposed loading rates and determination of agronomic rates.

If any biosolids within a given monitoring period do not meet 40 CFR 503.13 metals concentrations limits, the Discharger (or its contractor) must pre-notify EPA, and determine the cumulative metals loading to that site to date, as required in 40 CFR 503.12. The Discharger shall notify the applier of all the applier's requirements under 40 CFR 503, including the requirement that the applier certify that the management practices, site restrictions, and any applicable vector attraction reduction requirements have been met. The Discharger shall require the applier to certify at the end of 38 months following application of Class B biosolids that the harvesting restrictions in effect for up to 38 months have been met.

d. *For surface disposal:* Prior to disposal to a new or previously unreported site, the Discharger shall notify EPA and the Central Coast Water Board. The notice shall include a description and a topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator, site owner, and any State or local permits. The notice shall describe procedures for ensuring public access and grazing restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

9. The Discharger shall submit an annual biosolids report to the EPA Region 9 Biosolids Coordinator and Central Coast Water Board by February 19th of each year (per USEPA guidance and 40 C.F.R. 503) for the period covering the previous calendar year. This report shall include:

   a. Annual biosolids removed in dry tons and percent solids.

   b. If appropriate, a narrative description of biosolids dewatering and other treatment processes, including process parameters, including a schematic diagram showing biosolids handling facilities. For example, if drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.

   c. A description of disposal methods, including the following information as applicable related to the disposal methods used at the facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.

      (1) For landfill disposal include: 1) the Central Coast Water Board WDR numbers that regulate the landfills used, 2) the present classifications of the landfills used, 3) the results of any groundwater monitoring, 4)

certifications of management practices, and 5) the names and locations of the facilities receiving biosolids.

(2) For land application include: 1) the location of the site(s), 2) the Central Coast Water Board's WDR numbers that regulate the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), 4) certifications of management practices and site restrictions, and 5) subsequent uses of the land.

(3) For offsite application by a licensed hauler and composter include: 1) the name, address and USEPA license number of the hauler and composter.

d. Copies of analytical data required by other agencies (i.e. USEPA or County Health Department) and licensed disposal facilities (i.e. landfill, land application, or composting facility) for the previous year.

e. Descriptions of pathogen reduction methods and vector attraction reduction methods. Including supporting time and temperature data, and certifications, as required in 40 CFR 503.17 and 503.27.

f. Names, mailing address, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and amounts delivered to each.

g. For all biosolids used or disposed at the Discharger's facility, the site and management practice information and certification required in 40 CFR 503.17 and 503.27.

h. For all biosolids temporarily stored, the information required in 40 CFR 503.20 is required to demonstrate temporary storage.

i. Reports shall be submitted to:

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

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

X. OUTFALL AND DIFFUSER INSPECTION

The Discharger shall conduct an inspection of the outfall pipe/diffuser system annually 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 Central Coast Water Board and USEPA with the annual report required in Standard Provision C.16.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

B. Self Monitoring Reports (SMRs)

1. The Discharger is currently submitting Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). At any time during the term of this permit, the State Water Board or Central Coast Water Board will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. Monthly monitoring reports shall be submitted for all monitoring and sampling herein by the last day of the month following the sampling or monitoring event. An annual report shall be submitted by April 1st of each year, in accordance with Standard Provision C.16. In addition, monitoring data (effluent and ambient) shall be submitted in an electronic format to USEPA annually, in a form that is compatible with USEPA's STORET database. As specified below, the annual report shall also include a summary of any sewage spills or overflows from the collection system.

3. If results of monitoring a constituent appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed, as stated in B.2 of the Standard Provisions and Reporting Requirements.

4. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following month of sampling

X / hour	Permit effective date	Hourly	First day of second calendar month following month of sampling
X / day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
X / week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
X / month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
X / quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
X / semiannual period	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 1 February 1
X / year	January 1 following (or on) permit effective date	January 1 through December 31	April 1

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

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

   a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

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

d. Discharger is to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs in accordance with the following requirements:

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

   b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

   c. SMRs must be submitted to the CIWQS Program Web Site and certified as required by the Standard Provisions (Attachment D), to the web address listed below:

      http://www.waterboards.ca.gov/ciwqs/index.html

   d. An Annual Self Monitoring Report Summary shall be due on April1 following each calendar year and shall include:

      I. All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.

II. A discussion of any incident of non-compliance and corrective actions taken.

C. Discharge Monitoring Reports (DMRs)

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

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

   State Water Resources Control Board
   Division of Water Quality
   Discharge Monitoring Report Processing Center
   Post Office Box 100
   Sacramento, CA 95812-1000

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

D. Other Reports and Notifications

1. Cat Litter Public Education Outreach Annual Report. The Discharger shall include, as part of the April 1 annual self-monitoring report, a description of actions taken within the reporting year to implement the cat waste disposal outreach program and any proposed changes to the outreach program in the coming reporting year. Any changes that will reduce the level of effort identified in Section VI.C.5, shall not be implemented without USEPA and Water Board approval.

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

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

Attachment F – Fact Sheet – Table of Contents

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ATTACHMENT F – FACT SHEET

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

WDID:	3 400103001
Discharger:	City of Morro Bay and Cayucos Sanitary District
Name of Facility:	Morro Bay/Cayucos WWTP
Facility Address:	160 Atascadero Road
	Morro Bay, California 93442
	San Luis Obispo County
Facility Contact, Title and Phone:	Bruce Keogh, Wastewater Division Manager, (805) 772-6272
Authorized Person to Sign and Submit Reports:	Bruce Keogh, Wastewater Division Manager, (805) 772-6272
Mailing Address:	595 Harbor Street, Morro Bay, California 93442
Billing Address:	595 Harbor Street, Morro Bay, California 93442
Type of Facility:	Municipal WWTP
Major or Minor Facility:	Major
Threat to Water Quality:	1
Complexity:	B
Pretreatment Program:	No
Reclamation Requirements:	None
Facility Permitted Flow:	Peak seasonal dry weather flow of 2.36 MGD
Facility Design Flow:	Annual average of 2.06 MGD, Peak seasonal dry weather flow of 2.36 MGD
Watershed:	Estero Bay
Receiving Water:	Pacific Ocean
Receiving Water Type	Ocean

A. The City of Morro Bay and Cayucos Sanitary District (hereinafter Discharger) are the owner and operator of the Morro Bay/Cayucos Wastewater Treatment Plant (hereinafter Facility), a municipal wastewater treatment plant.

B. The Facility discharges wastewater to the Pacific Ocean at Estero Bay, a water of the United States, and is currently regulated by Order No. 98-15 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047881, which was adopted

by the Central Coast Water Board on December 11, 1998. The permit expired March 1, 2004, but continues in force until the effective date of the new permit, in accordance with 40 CFR Part 122.6.

C. The Discharger applied for reissuance of their 301(h)-modified permit on July 7, 2003.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment. The treatment plant provides treatment by a split stream process of physical and biological treatment. All wastewater flows through primary sedimentation basins. Approximately 1 MGD flows through secondary treatment facilities, including trickling filters, solids-contact, and secondary clarification. Secondary treated wastewater is then blended with primary treated wastewater and disinfected by chlorination, and then dechlorinated prior to discharge to the Pacific Ocean. Historically, biosolids have been anaerobically digested and dried, composted, and then trucked to the San Joaquin Valley for use as a soil conditioner. However, in the past two years, the Discharger has successfully implemented a composting operation at the treatment plant that will allow beneficial reuse of biosolids locally.

The Discharger's final Facility Master Plan includes the alternatives for upgrades. The City proposes to upgrade the facility to provide tertiary treatment. Details of the upgrades are conceptual as the Discharger is required to circulate an California Environmental Quality Act document that considers facility upgrade alternatives. However, the September 2007 Facility Master Plan recommends rehabilitation of the existing headworks and aerated grit chamber, demolition of primary clarifiers and trickling filters, construction of oxidation ditches, rehabilitation of the existing secondary clarifier and construction of a new secondary clarifier, construction of a new tertiary cloth filter, and rehabilitation of the existing chlorine contact chamber.

B. Effluent characteristics. According to the most recent monitoring data (June 2008), effluent has the following characteristics.

Table F-1. Effluent Characteristics for Conventional Parameters

Parameter	Units	Average Daily Value	Maximum Daily Value
Average Daily Flow	MGD	1.102	1.304
BOD	mg/L	48.8	53
TSS	mg/L	25	46
Total Chlorine Residual	mg/L	0.05	0.05
Total Coliform	MPN/100 mL	<2	<2
Temperature	^{o}C	20	23
Turbitity	NTU	35.7	52
pH	s.u.	7.6	7.7
Settleable Solids	mL/L	<0.10	<0.10
Grease and Oil	mg/L	3.7	9.2
Chronic Toxicity[1]	TUc	5.6	
Ammonia (as N)	mg/L	22	22

1 – Total coliform is to be sampled semi-annually (January and July). Therefore, results shown are reflective of the January 2008 semi-annual report.

The following table provides priority pollutants that were detected in the most recent semiannual report (January 2008).

Table F-2. Effluent Characteristics for Priority Pollutants

Parameter	Units	Detected Value	Violation
Chromium	µg/L	1.1	No
Copper	µg/L	16	No
Mercury	µg/L	0.025	No
Nickel	µg/L	4.7	No
Zinc	µg/L	60	No
Arsenic	µg/L	1.2	No
Lead	µg/L	2.1	No
Selenium	µg/L	0.91	No
Chloroform	µg/L	0.93	No
Dichlorobromomethane	µg/L	0.13	No
1,4 - Dichlorobenzene	µg/L	0.16	No
Methylene Chloride	µg/L	0.19	No
Toluene	µg/L	0.24	No
Total Xylenes	µg/L	0.79	No
m- Xylenes	µg/L	0.47	No
o- xylenes	µg/L	0.32	No
Bis (2-Ethylhexyl) phthalate	µg/L	12	No

C. Discharge Points and Receiving Waters. Effluent is discharged to the Pacific Ocean through a 27-inch diameter outfall that terminates with a 170-foot long diffuser in approximately 50 feet of water, 2900 feet from shore. The diffuser was modeled to achieve a minimum initial dilution of 133 parts seawater for every part effluent (133:1). The zone of initial dilution is approximately 103 feet wide 240 feet long.

D. Regulatory History. The treatment plant was originally constructed in 1954. It was upgraded in 1964 to a capacity of 1.0 MGD. In 1982, the outfall was extended further offshore to its current location. A new treatment plant was designed in 1981 to expand capacity and meet secondary treatment standards (discussed further below). Financial aid from state and federal agencies was not available. Consequently, the treatment plant's design was modified to provide biological treatment to a majority (~1 MGD), but not all, of the projected flow. In March 1983, Central Coast Water Board staff tentatively concurred that such a discharge would comply with applicable state laws, including water quality standards, and would not result in requirements for additional treatment, pollution control, or other requirements on any other point or non-point sources.

The treatment plant was upgraded from 1983 to 1985 to a peak seasonal dry weather flow of 2.36 MGD. In 1985, USEPA approved a Clean Water Act Section 301(h) Modified NPDES Permit that waived full secondary treatment requirements for Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS). The Permit required 75% removal of TSS and included a 30-day average TSS effluent limit of 70 mg/L. The Permit required 30% removal of BOD_5 and included a 30-day average BOD_5 effluent limit of 120 mg/L.

The permit also required an extensive monitoring program. The monitoring program is discussed on page F-12.

The Permit was first reissued in 1992. The second Permit reissuance process began in May 1997. Multiple discussions between the Discharger, Central Coast Water Board staff, and USEPA staff resulted in several revisions to the permit and monitoring program, including a slight reduction in allowed mass-emissions of BOD_5, TSS, and oil & grease; expanded biosolids reporting; revised benthic sampling locations; and a revised receiving water sampling program. In July 1998, staff again determined that the discharge would comply with applicable state laws, including water quality standards, and would not result in requirements for additional treatment, pollution control, or other requirements on any other pollutant sources. USEPA issued a tentative decision to grant another modification of secondary treatment requirements in September 1998. The Central Coast Water Board approved the NPDES Permit, waiving secondary treatment requirements, in December 1998. The California Coastal Commission determined the Permit was consistent with the Coastal Zone Management Act on January 13, 1998. USEPA issued the Permit on January 26, 1999, which finally became effective March 1, 1999 (33 days after issuance).

Morro Bay/Cayucos Wastewater Treatment Plant is now one of only three remaining in California that operates under a 301(h)-modified permit. Others include Goleta Sanitary District and San Diego. In 2004, Goleta Sanitary District and the Central Coast Water Board entered an agreement requiring an upgrade to full secondary treatment standards by November 2014. Orange County Sanitation District, the largest in the nation to operate under a 301(h)-modified permit, recently elected to upgrade its treatment facilities to meet secondary treatment standards and forgo its 301(h) modified permit.

In anticipation of this Permit reissuance process, staff met with and sent a letter to the Discharger in January 2003 that requested they consider upgrading the treatment plant to meet federal secondary treatment standards and forgo their 301(h)-modified permit. In a March 20, 2003 response, City of Morro Bay Manager Robert Hendrix wrote:

> "…we are using your correspondence as a catalyst for the formation of a long-term future policy on wastewater treatment. The [Morro Bay] City Council and [Cayucos] Sanitary District Board have selected members to serve on a subcommittee to work with your staff to consider a number of alternatives, formulate a draft policy or policies, and then return to the full legislative body in the late Spring of this year [2003] with a recommended course of action."

In mid-2003, the subcommittee commissioned a study as to whether an equalization basin could be added to improve treatment efficiency and allow the discharge to meet secondary treatment standards. The study concluded that an equalization basin would not accomplish this goal.

The Discharger submitted an application for reissuance of its Clean Water Act Section 301(h) Modified NPDES Permit on July 7, 2003. It also requested a determination ("401 Certification") as to whether the discharge will comply with applicable state laws, including water quality standards, and will not result in requirements for additional treatment, pollution control, or other requirements on any other pollutant sources. In an August 26, 2003 letter, Central Coast Water Board staff declined to make such a determination, instead deferring to the Central Coast Water Board to make such a determination through approval or disapproval of the NPDES Permit. This is more appropriate because of the complex legal issues, and it is a more comprehensive and publicly transparent process.

The existing permit expired on March 1, 2004, but continues in force until the effective date of reissuance, in accordance with 40 CFR Part 122.6.

In June 2004, after public opposition to the 301(h)-modified permit, the Discharger commenced a process to upgrade the treatment plant to meet secondary treatment standards. The Discharger hired Carollo Engineers to assist in development of a detailed timeline to implement the upgrade. Water Board staff and USEPA chose to delay the Permit reissuance process until the timeline was developed. In April 2005, Carollo Engineers presented a 15-year timeline at a public meeting of the Discharger. After considering many public comments in opposition to the 15-year timeline, the Discharger rejected the 15-year timeline and directed Carollo Engineers to return with a timeline that was as "quick as possible."

In May 2005, Carollo Engineers returned and presented an 8.5-year timeline to the Discharger. The 8.5-year timeline is based on the shortest reasonable time necessary to select an engineering consultant, coordinate between the Dischargers, develop a facility plan, obtain financing and permits, and design and construct the improvements. The 8.5-year timeline requires the Discharger to achieve full compliance with secondary treatment standards by June 23, 2015. The Discharger accepted the 8.5-year timeline and formally proposed it to Water Board staff on June 15, 2005. Water Board staff met with the Discharger July 15, 2005, and tentatively agreed to the 8.5-year timeline. Water Board staff and the Discharger drafted a tentative settlement agreement that enforces the 8.5 year timeline, and provides for one more 301(h)-modified permit. This 301(h)-modified permit is necessary because the timeline to achieve compliance with secondary treatment standards exceeds the five-year life of an NPDES permit. The next NPDES permit (September 2013, if the Water Board adopts a permit at this hearing) will contain secondary treatment requirements, and will be accompanied by a time schedule or other order to shield the Discharger from mandatory minimum penalties until the upgrade is completed. If State and federal law (see 40 CFR 122.47) allow a compliance schedule in the NPDES permit, the permit will include the compliance schedule and no time schedule or other order will be necessary. The tentative settlement agreement contains additional provisions regarding new evidence and Central Coast Water Board discretion.

Water Board staff presented the revised modified 301(h) Waiver NPDES Permit and settlement agreement to the Central Coast Water Board on May 11, 2006. The Central Coast Water Board had questions regarding the potential affects of continued discharges from the Facility; more specifically, whether continued facility discharges would effect the southern sea otter and brown pelican. As a result, the Central Coast Water Board continued the hearing to allow USEPA to develop an Endangered Species Act Biological Evaluation (BE) on the potential effects. Furthermore, the BE would be required to receive concurrence of "no likely adverse effects" pursuant to Section 7 of the Federal Endangered Species Act from the U.S. Fish and Wildlife Service (USFWS).

The USEPA drafted the BE on September 6, 2007, and requested concurrence of "no likely adverse effects" on the brown pelican and southern sea otter from the USFWS. The BE recognizes no likely adverse effects on the southern sea otter and brown pelican provided that the Discharger implement conservation measures, which include:

- Public outreach program to minimize the input of cat litter-box wastes into the municipal sewer systems;
- Regular monitoring of nutrient loading from the facility's ocean outfall; and
- Facility upgrade to at least full secondary or tertiary treatment by 2014.

The USFWS formally responded to the USEPAs request for concurrence in a letter dated December 21, 2007. The USFWS letter concurred with the USEPA's findings indicating that continued discharges from the Facility would not likely have adverse effects to endangered species in the area. The USFWS letter states, "[w]e concur with your determination that the proposed project is not likely to adversely affect the brown pelican or southern sea otter." However, the USFWS letter recognized that there are material gaps in current data and that additional data gathering would optimize the understanding of potential effects from the continued discharge. The USFWS letter states, "[w]e recognize that the conservation measures proposed in the Biological Evaluation for this action will assist in gathering information useful in evaluating this issue, as will independent research being conducted by a number of interested parties."

As noted in Finding I of this Order, the Discharger plans on converting the existing facility to tertiary treatment as part of the upgrades. Furthermore, the Discharger submitted to Water Board staff drafts for the development and implementation of a nutrient monitoring program and a Cat Litter Public Outreach program consistent with the conservation measures as proposed by USEPA. These conservation measures are incorporated into the revised Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

B. California Environmental Quality Act (CEQA)

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

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Central Coast Water Board adopted the *Water Quality Control Plan, Central Coast Basin* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board Resolution No. 88-63 requires that, with certain exceptions, the Central Coast Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to Pacific Ocean are as follows:

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	• Water contact recreation (REC-1); • Non-contact water recreation (REC-2); • Industrial service supply (IND); • Navigation (NAV); • Marine habitat (MAR); • Shellfish harvesting (SHELL) ; • Commercial and sport fishing (COMM); • Rare, threatened, or endangered species (RARE); • Wildlife habitat (WILD).

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

Parameter	30-Day Average	7-Day Average
BOD_5 and TSS	30 mg/L	45 mg/L
BOD and TSS Removal	At least 85%	--
pH	6 – 9 at all times	

Due to the extensive volume of the ocean relative to inland water bodies, dilution of wastewater discharges to the ocean is generally much greater than discharges to inland water bodies. Most major ocean discharges in the Central Coast Region achieve initial dilution of greater than 100 parts seawater for every part effluent. On the contrary, most inland discharges in the Central Coast Region are to water bodies with little or no natural flow, therefore little or no dilution occurs. Although effluent BOD_5 and TSS values for a typical ocean discharge may exceed secondary treatment standards, the final concentration of these pollutants in the receiving water will be far less than a typical inland surface water discharge that meets secondary treatment standards. This dilution effect is the primary basis for the modification of secondary treatment standards provided in Clean Water Act Section 301(h). However, the direction of our laws, regulations, and policies is steadily toward reducing the discharge of pollution to the environment, not justifying pollutant loading with dilution. There are several additional factors that must be considered before approving a 301(h)-modified permit, as noted below.

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

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

- There is an applicable water quality standard specific to the pollutant for which the modification is requested (usually BOD_5 and TSS);

- The discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of

public water supplies and protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;

- The applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;

- Such modified requirements will not result in any additional requirements on any other point or nonpoint source;

- All applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;

- In the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;

- To the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;

- There will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;

- The applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 304(a)(1) [of the Clean Water Act] after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged. (40 CFR Part 125.57)

USEPA's Tentative Decision Document dated November 10, 2005, evaluates the Discharger's compliance with each of these nine criteria. USEPA's tentative decision is that the Discharger meets each of the above criteria and the Permit is eligible for reissuance.

3. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

4. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order.

5. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

   The Discharger's monitoring program is among the most comprehensive of all municipal ocean discharges of less than 5 MGD in California. More importantly, the monitoring for this permit is thorough, covering the treatment process, receiving waters, seafloor sediment, and marine life. Influent and effluent quality and quantity are routinely monitored to evaluate treatment process efficiency. Effluent is regularly monitored for conventional pollutants (e.g. TSS, pH), as well as whole effluent toxicity and priority pollutants (e.g. arsenic, benzene, halomethanes, etc.).

   Receiving water monitoring includes both surf zone monitoring and ocean monitoring near the discharge. The discharge is approximately 2700 feet offshore. Surf zone monitoring includes grab samples taken on a weekly basis in the summer months and at least monthly during the winter months, at eight monitoring stations, ranging from 5600 feet upcoast of the outfall diffuser, to 5000 feet downcoast of the outfall diffuser. Samples are analyzed for total and fecal coliform organisms to assess conditions for water contact recreation and shellfish harvesting.

   Ocean monitoring stations are located in a target-shaped grid around the outfall diffuser to assess the short- and long-term impacts of the discharge on the receiving water, benthic sediment, and biota in the vicinity of the discharge. Ocean monitoring data are collected quarterly by deploying electronic probes by boat at each monitoring station to measure dissolved oxygen, pH, salinity, temperature,

density, and light transmittance at frequent intervals through the entire water column. The data are interpolated to create graphical cross sections of the discharge plume. The cross sections are used to approximate the geometry and behavior of the discharge plume under various oceanographic conditions.

Sediment monitoring is conducted annually in October at nine stations surrounding the discharge, to assess the temporal (i.e. changes over time) and spatial (i.e. changes in distance from the outfall) occurrence of pollutants in sediment, and physical and chemical quality of the sediments. Parameters that are measured include sediment particle size, BOD_5, sulfides, heavy metals, and persistent organic pollutants (e.g. DDT).

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

Additionally, biosolids and the outfall/diffuser system are inspected annually.

IV. EVALUATION OF COMPLIANCE WITH PERMIT REQUIREMENTS

Whereas USEPA's evaluation is focused on compliance with the nine criteria discussed above, Water Board staff's evaluation is focused on compliance with the Permit's effluent and receiving water limitations, as well as relevant laws and regulations that are specific to California. Staff's evaluation is based on data generated by the Discharger's Monitoring and Reporting Program.

A. Effluent Limitations.

1. **Total Suspended Solids.** The Permit requires removal of at least 75% of TSS from the influent stream. Additionally, effluent shall not exceed the following limits:

Constituent	Unit	Monthly (30-Day) Average	Maximum At Any Time
TSS	mg/L	70	105
	lbs/day	1203	1804
	kg/day	546	819

The treatment plant was designed to comply with these limitations at an annual average flow of 2.06 MGD. Current influent flows are approximately 55% of the design capacity, thus the long-term average effluent TSS concentration is far below these limitations. However, these limitations were violated on three related occasions during a brief period in 2002. The TSS effluent maximum limit of 105 mg/L was violated on August 26, 2002 (reported value: 107 mg/L), and September

11, 2002 (147 mg/L). The TSS effluent monthly (30-day) average limit of 70 mg/L was exceeded in September 2002 (79 mg/L). The violations resulted from an upset of the biological treatment process, which was later attributed to a distinct alteration of influent characteristics by excessive loading of pH-neutralization chemicals from an industrial laundry facility. The industrial laundry facility discontinued use of the suspect chemicals. Biological treatment performance subsequently improved and the violations ceased. There have been no other violations of effluent TSS limits since 1998.

The Central Coast Water Board issued mandatory penalties totaling $15,000 for these and other effluent violations described below on July 14, 2000 (Mandatory Penalty Order No. 00-100), November 7, 2003 (Mandatory Penalty Order No. R3-2003-0052), and July 1, 2008 (Mandatory Penalty Order No. SWB-2008-3-0009).

2. **BOD_5.** The Permit requires removal of at least 30% of BOD_5 from the influent stream. Additionally, effluent shall not exceed the following limits:

Constituent	Unit	Monthly (30-Day) Average	Maximum At Any Time
BOD_5	mg/L	120	180
	lbs/day	2062	3092
	kg/day	936	1404

BOD_5 and TSS are closely correlated. Since the facility is designed to remove 75% of TSS, the facility necessarily removes far greater than 30% of BOD_5. Consequently, these limitations were never exceeded in the life of the existing Permit. The long-term average BOD_5 removal efficiency since 1986 is over 70%, well above the 30% requirement. The long-term average effluent BOD_5 concentration since 1986 is 52 mg/L, well below the 120 and 180 mg/L limitations.

3. **pH.** The Permit requires effluent pH to remain within 6.0 and 9.0 at all times. Effluent pH has been monitored daily since 1993, amounting to over 4,000 measurements. No measurement was below 6.9 or greater than 8.2.

4. **Other Effluent Violations.** In addition to the three effluent TSS violations reported above, the Discharger violated effluent limitations on five occasions since 1998.

The TCDD Equivalents (more commonly referred to as 'dioxin') effluent 30-day average limitation of 0.52 pg/L was violated July 10, 2002. The reported dioxin concentration was 0.56 pg/L, 8% greater than the effluent limit. This exceedance was much smaller than the 20% instrumentation calibration standard. The Discharger states that the particular dioxin congener that was responsible for the violation is ubiquitous in the environment. The Discharger also stated that the violation could be attributed to laboratory contamination, which is commonplace when measuring concentrations at sub-parts-per-quadrillion. Staff has requested the

Discharger sample the influent if any TCDD Equivalents violations occur in the future to determine whether or not any dioxin is formed within the treatment plant.

The total chlorine residual effluent daily maximum limitation of 1.07 mg/L was violated on April 21, 2000 (3.45 mg/L) and June 30, 2004 (6.3 mg/L). Violations of the effluent instantaneous maximum of 8.04 mg/L occurred December 29, 2002 (10+ mg/L), January 16, 2003 (10+ mg/L), and October 20, 2004 (10+ mg/L). The first two violations occurred when a system that removes solids from the bottom of the chlorine contact chamber broke down and required emergency repair. The chlorine contact chamber had to be drained to complete the repair, hence was unusable. Rather than discharging undisinfected effluent, the Discharger opted to utilize the outfall pipe as a makeshift chlorine contact chamber, which prevented dechlorination and resulted in the chlorine violation.

The chlorine violations on December 29, 2002, and January 16, 2003, occurred when a sampling device that controls the chlorine dosing process became clogged with solids from the contact chamber. The clogged device delivered false feedback to the dosing process, which overdosed the contact chamber with chlorine and overwhelmed the dechlorination process. The October 20, 2004 violation occurred when the motor for this same sampling device failed. These problems are quite common in all similar wastewater treatment facilities. These latest chlorine violations are classified by USEPA as “Significant Non-compliance” (see www.epa.gov/echo), which resulted in temporary listing of the Discharger on USEPA’s Watch List.

The Central Coast Water Board issued mandatory penalties totaling $15,000 for most of these effluent violations on July 14, 2000 (Mandatory Penalty Order No. 00-100), November 7, 2003 (Mandatory Penalty Order No. R3-2003-0052), and July 1, 2008 (Mandatory Penalty Order No. SWB-2008-3-0009).

B. Receiving Water Limitations

1. **Bacteria.** The Permit specifies that the discharge shall not cause the following bacterial limits to be exceeded in the water column at all areas where shellfish may be harvested for human consumption:

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

According to staff’s analysis of all surf zone total coliform monitoring data, the Discharger consistently complies with this requirement. Staff analyzed all surf zone total coliform monitoring data collected since 1993. The data set consisted of approximately 500 at each monitoring station. With exception to the monitoring station at the mouth of Morro Creek, the annual median at each monitoring station

was well below 70 MPN/100 mL. With exception to the Morro Creek monitoring station, no less than 98% of samples from each monitoring station were below 230 MPN/100 mL.

The median value at the Morro Creek monitoring station was consistently greater than 70 MPN/100 mL and the "90% of samples" criteria was exceeded in six of the last 15 years. However, the Morro Bay/Cayucos wastewater discharge could not be causing these exceedances for two reasons: (1) samples at the Morro Creek monitoring station are taken of the creek prior to flowing into the ocean, where the discharge's influence is highly unlikely, and (2) if the discharge were causing the exceedances, then exceedances also would be expected at other monitoring stations in similar proximity to the discharge. As discussed above, this is not the case. This analysis demonstrates that the shoreline near the discharge, with exception to the mouth of Morro Creek, meets the shellfish harvesting receiving water limitation.

Since water contact recreation receiving water limitations are less stringent than shellfish harvesting limitations, this beach also meets water contact receiving water limitations. Independent monitoring supports this conclusion. County of San Luis Obispo Environmental Health Services (EHS) has been monitoring this beach at stations 75 feet north of the Morro Rock parking lot (near Station F), and at the projection of Atascadero Road (near Station E) weekly during summer months since November 2001, and weekly during winter months since February 2002. Heal the Bay's Beach Report Card (see www.healthebay.org/brc/annual/2007/counties/slo/grades.asp), which is based on EHS' monitoring results, gave both locations an A+ grade for wet weather conditions as of March 2008 and an A+ for dry weather conditions as of July 2008.

2. **Light Transmittance.** The Permit specifies that the discharge shall not cause significant reduction in the transmittance of natural light at any point outside the initial dilution zone.

   According to the Tetra Tech's March 1984 *Morro Bay 301(h) Application*, ambient TSS measured in Estero Bay ranges from 20 to 34 mg/L. Assuming the discharged concentration of TSS is 70 mg/L, the expected contribution of TSS to Estero Bay by effluent following dilution is approximately 0.5 mg/L. This would constitute a 1.4% to 2.5% increase in ambient TSS concentrations. Such a small increase is not expected to significantly reduce water clarity.

   The Discharger has monitored light transmittance at all 16 receiving water-monitoring stations on a quarterly basis since 1998. As a measure of monitoring program's resolution, the monitoring data show statistically significant decreases in light transmittance within the initial dilution zone (which is not a violation of the permit). The data also show occasional minor decreases in light transmittance outside the initial dilution zone. These minor decreases in light transmittance outside the initial dilution zone are caused by entrainment of the more turbid seafloor layer by the buoyant discharge. This phenomenon is not attributed to quality of the effluent and is not controllable, and is not considered a violation.

3. **Dissolved Oxygen.** The Permit specifies that the discharge shall not cause the dissolved oxygen (DO) 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.

   So far over 2,015 DO measurements were collected at the sixteen regularly sampled receiving water stations during 2007. None were below 5.0 mg/L. The annual average DO concentration was 7.05 mg/L during 2007. The discharge has not caused the DO concentration outside the zone of initial dilution to fall below 5.0 mg/L or be depressed more than 10 percent from that which occurs naturally.

4. **pH.** The Permit specifies that the discharge shall not cause the pH outside the zone of initial dilution to be depressed below 7.0, raised above 8.3, or changed more than 0.2 units from that which occurs naturally.

   As discussed above, effluent pH has been measured daily since 1993, amounting to over 4,000 measurements. None were below 6.9 or above 8.2. The long term average effluent pH (7.5) is close to the mean pH of the receiving waters (7.66). The ocean is well-buffered system that is capable of assimilating such small differences in alkalinity. Recent data suggests that the discharge has not caused the pH outside the zone of initial dilution to be depressed below 7.0, raised above 8.3, or changed more than 0.2 units from that which occurs naturally.

5. **Sulfides in Sediment.** The Permit specifies that the discharge shall not cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.

   To evaluate compliance with this requirement, the Discharger performed statistical tests on the "null hypothesis," or expected situation, that the mean sulfide concentration within 60 meters of the diffuser structure (nearfield) is not significantly higher than the mean concentration among midfield and reference stations (distant). The test compares the magnitude of the difference in mean sulfide concentrations with the variability about those means. In October 2002, the mean sulfide concentration of nearfield stations was 116 mg/kg and the mean sulfide concentration of distant stations was 65 mg/kg, a 51 mg/kg difference. The p-value was 0.04. P-values less than 0.05 (95% confidence) indicate that the higher nearfield mean sulfide concentration is significant and the null hypothesis may be rejected. This suggests the discharge has caused the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.

   The Discharger contends that despite the apparently significant differences in mean sulfide concentrations, the statistical power to detect the observed differences between the means is relatively low. More specifically, the ability to detect a difference in mean sulfide concentrations of 51 mg/kg is only 54% (Power=0.54). According to the Discharger's Offshore Monitoring and Reporting Program 2002 Annual Report, "Differences with statistical powers below 0.7 are generally

considered indeterminate with respect to the presence of impacts (p. 4-20)." Staff checked the basis for this statement, Jacob Cohen's 1988 Statistical Power Analysis for the Behavioral Sciences, and found it to be accurate.

Staff requested that the Discharger investigate ways to increase statistical power. In a January 8, 2004 letter, the Discharger explained that sediment sulfides concentrations around the outfall have historically been highly variable. Prior to 2001, the Discharger employed an antiquated technique to measure dissolved sulfides in sediment, which yielded highly variable results. In 2001, in an attempt to decrease variability, the Discharger switched to a more advanced total sulfide analysis, which uses acid and heat to strip sulfides out of sediment samples. Unfortunately, the total sulfide analysis also yielded highly variable results. In October 2002, the Discharger developed a technique to extract pore water from the sediment, in an attempt to obtain a sample that would most accurately measure compliance with the subject requirement. The pore water samples were analyzed for dissolved sulfides with a Method Detection Limit of 0.05 mg/L. No dissolved sulfides were detected in any samples.

The Discharger's new pore water extraction technique is the most appropriate technique employed thus far to measure compliance with the subject requirement. The technique measures sulfides that are actually available to benthic organisms. Staff recommends the Discharger be given the option to monitor dissolved sulfides in sediment pore water. The pore water extraction technique is relatively difficult and expensive, so staff further recommends that this monitoring requirement may be discontinued by written approval of the Executive Officer if dissolved sulfides are not detected in any pore water sample from any benthic sediment monitoring station for one additional year.

6. **Organic Materials in Sediment.** The Permit establishes sediment quality standards for synthetic organic pollutants ("priority pollutants") by specifying that:

   "The discharge shall not cause the concentration of organic materials in marine sediments to increase above levels which would degrade marine life; and

   The discharge shall not cause the concentration in marine sediments of [priority pollutants] to be increased above levels which would degrade indigenous biota."

The Discharger measured organic materials in sediment by monitoring Total Kjeldahl Nitrogen (TKN), BOD_5, oil & grease, and volatile solids concentrations. For the sake of simplicity, the analysis provided here focuses on volatile solids. The Discharger has monitored volatile solids at all sediment monitoring stations at least annually since 1986. Figure 1 represents all volatile solids monitoring results. The background sediment monitoring station (Station 1, located 1016 meters upcoast of the discharge) is represented by a deep bold line. If the discharge were causing organic matter in marine sediment to increase, then volatile solids at monitoring stations near the discharge would increase more rapidly than the background monitoring station. Such a condition would be represented by a visible departure of

the near-discharge monitoring results from the background monitoring results. As can be seen, this is not the case. All of the near-discharge monitoring results with exception to one (Station 4 in October 2000) fall within the 95% confidence interval of the background monitoring station. This suggests the discharge is not causing organic materials in sediments to increase.

These receiving water limitations are intended to protect marine life. Compliance with these requirements is not based solely on concentrations of organic-loading parameters in sediment. Compliance determinations must take into account the health of marine communities in the vicinity of the discharge.

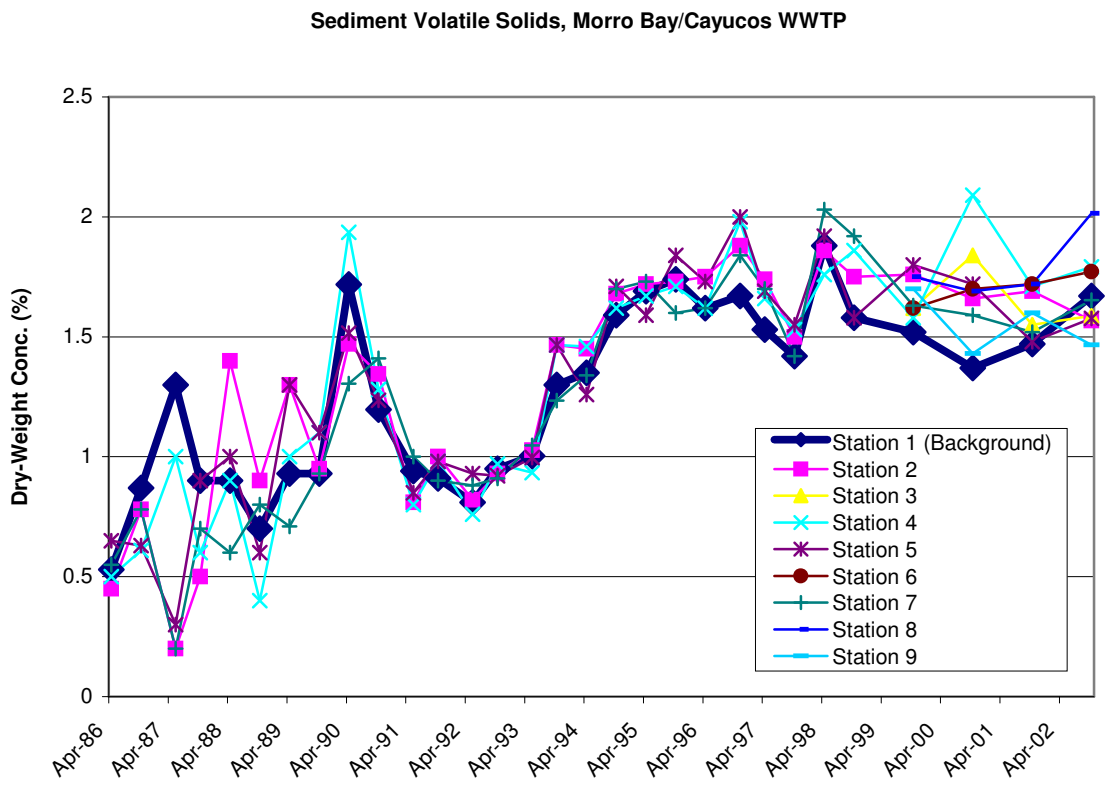

Figure 1: Benthic Sediment Volatile Solids

7. **Marine Life.** The Permit states "the concentration of organic materials in marine sediments shall not be increase to levels that would degrade marine life."

According to the 2005 California Ocean Plan:

> "Degradation shall be determined by a comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic

invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected."

The Discharger has measured the health of the benthic (bottom-dwelling) community of marine life in the vicinity of the discharge since 1986. Benthic community samples collected at each monitoring station are represented by indices of abundance, diversity, richness, and trophic (feeding) structure. Figure 2 provides a succinct record of all these indices since 1986.

In simple terms, benthic community degradation would be characterized by:

- Greater fluctuations in organism density at stations closer to the discharge,
- Decreased number of species and diversity over time and in closer proximity to the discharge,
- Increased dominance over time and at stations in closer proximity to the discharge, and
- A trophic index less than 58.

Significant differences between areas near and distant from the discharge would be illustrated as a visible departure of the indices at stations near the outfall (shown in red (lighter), Stations 4 and 5) from the indices at distant stations (shown in black (darker), Stations 1, 2, and 7) in Figure 2.

Figure 2a shows that although density has fluctuated over time, density at all the monitoring stations tended to fluctuate together. The density at stations near the outfall is not consistently higher or lower than density at distant stations. Prior to 1999, benthic community structure was measured both post-summer, as it is currently, and post-winter, when the area of the discharge has been scoured by rough oceanographic conditions. The fluctuations in density data decrease after 1999 when post-winter monitoring was discontinued. This suggests the fluctuations observed prior to 1999 were caused by natural seasonal fluctuations, not degradation of sediment by the discharge.

Figures 2b and 2c show no downward trends in the number or diversity of species

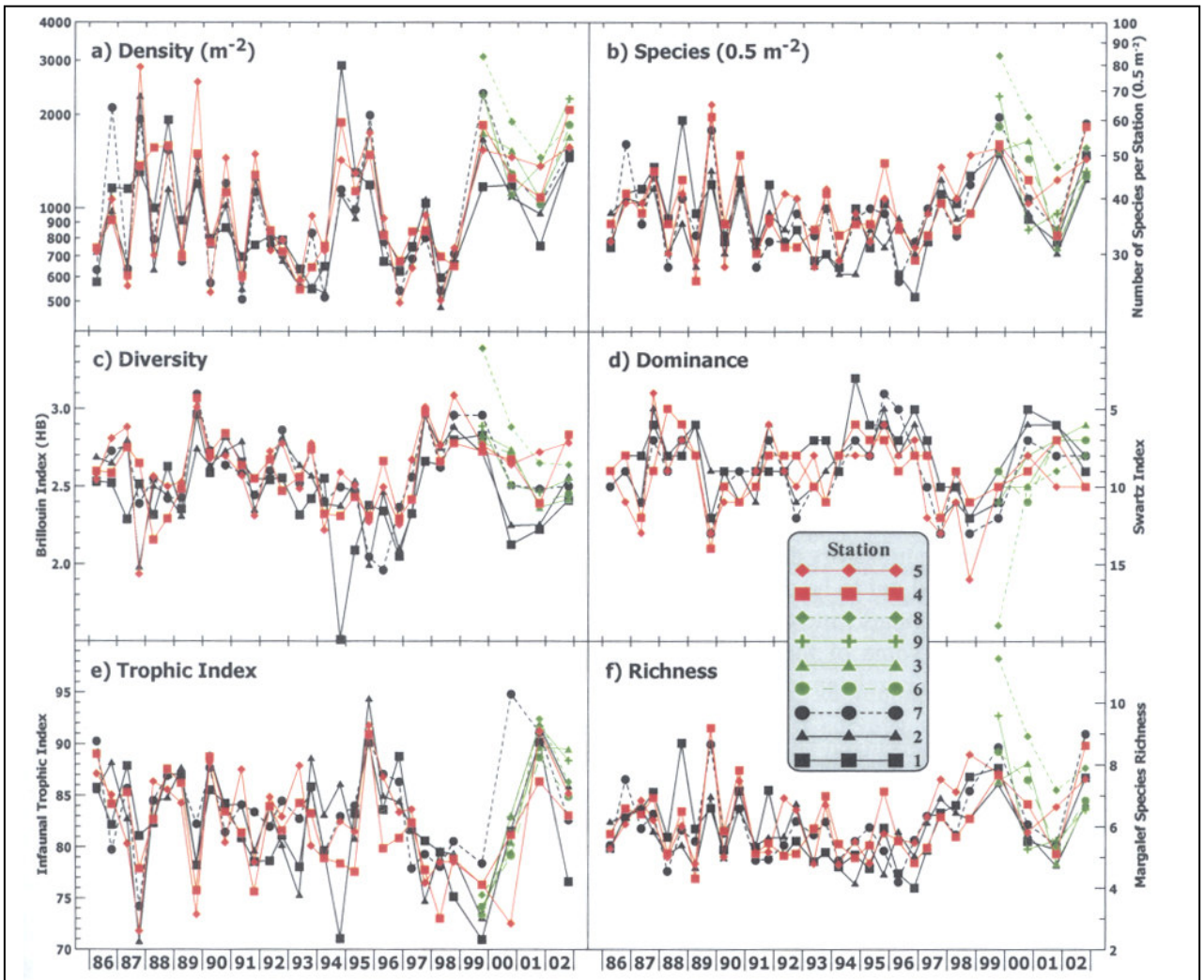

Figure 2: Benthic Community Indices

that would suggest degradation of the benthic community near the discharge. The numbers and diversity of species in samples collected near the discharge consistently coincides with samples collected distant from the discharge.

Interestingly, the numbers and diversity of species were often greatest in samples collected closest to the discharge.

Figure 2d is a record of the Swartz Index of species dominance. The Swartz Index is defined as the number of species accounting for 75% of the individual organisms collected. Consequently, Swartz Index and dominance are inversely related. Degradation of the benthic community would be characterized by decreasing Swartz Index over time and in closer proximity to the discharge. Figure 2d (note the inverted vertical scale) shows no trends that would suggest the benthic community near the discharge has been degraded. Dominance in samples collected near the discharge consistently coincides with samples collected distant from the discharge.

Figure 2e is a record of the Infaunal Trophic Index (ITI). ITI is a measure of the relative dominance of benthic organisms with different feeding behaviors. Benthic organisms are divided into four groups according to their feeding behavior; Group I (suspension feeders), Group II (surface-detritus feeders), Group III (surface deposit feeders), and Group IV (sub-surface detritus feeders). When species in Group I and Group II dominate, ITI values are above 58 and sediments are considered relatively clean. Degradation of the benthic community would appear as a gradual decrease in the ITI at monitoring stations near the discharge relative to stations distant from the discharge. As shown in Figure 8e, the ITI of samples collected near the discharge consistently coincides with samples collected distant from the discharge. The ITI has never been below the critical value of 58 at any station. In fact, the ITI has never dipped below 70. These observations suggest the benthic community has not been degraded by the discharge.

In many of the above instances, the nearfield (60 meters or less from the discharge point) benthic monitoring stations yielded more favorable results than the “reference” Station No. 1 (1016 meters upcoast of the discharge point). This is contrary to what is expected by such a monitoring design. This suggests Benthic Monitoring Station No. 1 is located in a much different environment than the discharge, and does not accurately represent background conditions. USEPA staff, the Discharger, and Central Coast Water Board staff met to discuss this issue in April 2004, and all agreed that Station No. 1 detracted from the power of the monitoring program to detect spatial and temporal trends in benthic sediment measurements and community health. Station Nos. 2 and 7, which are 150 meters upcoast and downcoast of the discharge point, respectively, are close enough to the discharge to ensure they are in a comparable environment, yet far enough from the discharge to be considered representative of background conditions. Staff therefore recommends Station Nos. 2 and 7 replace Station No. 1 as the reference stations.

8. **Toxoplasma and Sea Otters.** In April 2002, an association of scientists, including those from UC Davis School of Veterinary Medicine, California Department of Fish and Game, and Central Coast Water Board staff Karen Worcester and Dave Paradies, published “*Coastal Freshwater Runoff Is A Risk Factor For Toxoplasma Gondii Infection Of Southern Sea Otters*” in the International Journal for Parasitology. The study documented extensive infection of southern sea otters along the Central

Coast by Toxoplasma gondii, a protozoan parasite known to originate in land-based mammals, primarily felines. The scientists theorize that sea otters become infected by T. gondii by consuming shellfish, which are filter feeders and accumulate microorganisms such as T. gondii in their tissue. More than 220 live and dead sea otters were examined between 1997 and 2001, with the goal of identifying spatial clusters and risk factors for T. gondii infection. The study found:

> "Spatial analysis of pooled live and dead otter serological data revealed a large cluster of *T. gondii*-seropositive [i.e., infected] otters (20/23, or 87% seropositive) within a 20 km coastal region centered on the towns of Morro Bay and Cayucos, California. Otters sampled from the area were nearly twice as likely to be seropositive to *T. gondii* as expected, and this difference was statistically significant (P = 0.082)."

The study evaluated the cluster of high infection rates around Morro Bay and Cayucos to determine whether other risk factors could explain the cluster. The study found:

> "…significantly increased odds of *T. gondii* seropositivity were detected for otters sampled near maximal (heavy) freshwater outfalls. Based on our analysis, the odds of *T. gondii* seropositivity were highest for adult male sea otters samples from areas of central California with maximal freshwater outflow, especially those sampled near Morro Bay/Cayucos. No significant associations with *T. gondii* seropositivity were found in relation to sewage flow, either by univariate analysis or by logistic regression analysis. However, 96% of our otter samples (214/223) were obtained from coastal areas with minimal values for municipal sewage exposure."

Although the study suggests the high rate of infections are most closely associated with heavy freshwater outflow (the second highest rate of infection was centered around Elkhorn Slough, a freshwater outflow similar in magnitude to Morro Bay), staff is concerned that the highest infection rates are centered around the only discharge with a 301(h)-modified permit in the studied area. Scientists have speculated that flushable cat litter may be a source of *T. gondii* in domestic wastewater. In March 2003, staff requested that the Discharger evaluate its discharge as a potential source of *T. gondii*. The Discharger collaborated with the UC Davis School of Veterinary Medicine to monitor the discharge by hanging clusters of mussels from buoys at each end of the outfall diffuser. Any *T. gondii* present in the discharge will accumulate in the mussels over time. According to a December 13, 2004 letter from Dr. Patricia Conrad of the UC Davis School of Veterinary Medicine:

> "We were able to complete testing of 120 mussels that had been outplanted at the Morro Bay outfall buoy (30 mussels each in the early dry season, late dry season, early wet season, and late wet season). *Toxoplasma* RNA was not detected in any of the 120 mussels from the outfall buoy that have been tested thus far."

These results suggest that the subject discharge is not a source of *T. gondii* loading to Estero Bay.

C. Sewage Spills.

Since 1998, the following sewage spills from the Discharger's respective collection systems were reported:

City of Morro Bay:

Date	Volume (gal)	Cause	Reach Surface Waters?
Sept. 24, 1998	<100	Failure of bypass during sewer line repair	Yes, Morro Bay
Feb. 19, 1999	Unknown	Blockage in main	No
July 16, 1999	1,000	Blockage in main	Yes, Morro Bay
Nov. 23, 1999	150	Rocks and concrete blockage in main	No
Feb. 7, 2001	Unknown	Pipe failure due to corrosion	Yes, Morro Bay
July 4, 2000	100	Cause unknown	No
Oct. 7, 2000	300	Blockage in main	Yes, Morro Bay
Oct. 15, 2000	1,000	Blockage in main	No
Nov. 2, 2000	750	Blockage in main	Yes (50 gal.), Morro Bay
Feb. 14, 2002	500-800	Line failure during pump station repair	Yes, Pacific Ocean
Dec. 22, 2002	300	Blockage in main	Unknown
Jan. 20, 2003	200	Root blockage in main	No
Jan. 22, 2003	250	Grease blockage in main	No
Oct. 22, 2003	300-350	Blockage in main	No
April 30, 2004	100-200	Unknown	Unknown
July 6, 2004	70	Flushmeter in Group Camp restroom stuck on	Yes, Morro Bay
December 31, 2004	8,400	Morro Creek overflowed banks; flooded wet well and sludge drying beds	Yes, Pacific Ocean
February 18, 2005	135	Surcharged manhole due to excessive inflow from heavy rainfall	No
January 1, 2007	100	Debris blocked private lateral	Yes, Morro Bay
October 21, 2007	300	Pipe/Infrastructure failure	No
December 31, 2007	35	Debris/root blockage	No

Date	Volume (gal)	Cause	Reach Surface Waters?
January 12, 2008	30	Root blockage from private lateral	No
January 16, 2008	100	Unknown backup from private lateral	Yes, Morro Bay
June 12, 2008	10	Root blockage	Yes, Morro Bay
July 24, 2008	5	Root Blockage	No

Cayucos Sanitary District:

Date	Volume (gal)	Cause	Reach Surface Waters?
Feb. 13, 2000	760	System surcharged due to heavy rains	Yes, Pacific Ocean
Dec. 23, 2003	200	Blockage in main	Yes, Cayucos Creek
April 18, 2005	300-400	Power generator failure	Yes, Pacific Ocean
May 17, 2008	120	Debris blockage	No
June 9, 2008	5	Backup from private lateral	No
June 16, 2008	5	Root blockage	No

In general, the Discharger responded to each sewage spill appropriately; the spill was quickly contained, the cause of the spill was eliminated, the affected area was cleaned up and disinfected, proper authorities were notified, creeks and/or beaches were posted if necessary, and maintenance/replacement schedules were adjusted if necessary to prevent future problems.

The Dischargers have enrolled separately under the General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, adopted May 2, 2006, by the State Board. The City of Morro Bay received formal enrollment status for General WDR coverage on January 8, 2007. Cayucos Sanitary District received formal enrollment status for coverage on January 9, 2007. The General WDRs require collection system entities to develop a Sanitary Sewer Management Plan (SSMP). SSMPs are required to include goals; organization; legal authority; operations and maintenance program; design and performance provisions; overflow emergency response plan; fats, oils, and greases control program; systems evaluations and capacity assurance program; monitoring, measures, and program modifications; and SSMP Program audit. Additionally, the General WDRs require the collection system entities to report sanitary sewer overflows (SSOs). Collection system entities are required to report SSOs that are greater than 1,000 gallons. Furthermore, some entities must also report SSOs less than 1,000 gallons discharging to surface waters or storm drains or that threaten public health. Reporting provisions are set forth in the General WDRs. Reporting shall occur through the Statewide Online SSO database. Reporting times vary depending on discharge amount and destination. The Discharger is currently complaint with the regulations of the General WDRs for Sanitary Sewer Systems.

V. SUMMARY AND RATIONALE OF PROPOSED CHANGES TO PERMIT REQUIREMENTS

This Order is consistent with the Statewide Standard California Ocean Plan NPDES Permit template (most recent template is dated on July 23, 2007). Therefore, changes in this Order are consistent with the 2005 California Ocean Plan. The following table indicates specific changes from Existing Order No. 98-15 to Proposed Order No. R3-2008-0065.

Change	Section	Reason
1. The following prohibition is added: "The discharge of chlorine or any other toxic substance used for disinfection and cleanup of sewage overflows, to any surface water body is prohibited. This prohibition does not apply to the chlorine in the potable water used for final wash down and clean up of overflows."	Permit, Section III.D	To minimize impacts to water quality resulting from cleanup of sewage spills.
2. Effluent limitations for the following constituents are lower than the existing Permit: thallium, chlorodibromomethane, 1,2-dichloroethane, 1,1-dichloroethylene, dichlorobromomethane, isophorone, N-nitrosodi-N-propylamine, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,1,2-trichloroethane, 2,4,6-trichlorophenol.	Permit, Section IV.C	Water Quality Objectives for these constituents have decreased in the 2005 Ocean Plan.
3. The existing Acute Toxicity limitations (1.5 TUa 30-Day Average, 2.0 TUa 7-Day Average, and TUa 2.5 Daily Maximum) are replaced with a 4.3 TUa Daily Maximum.	Permit, Section IV.C	The 2005 Ocean Plan specifies a Daily Maximum Acute Toxicity Water Quality Objective of 0.3 TUa, to which a dilution credit of 10% of the minimum initial dilution ration is applied.
4. Biosolids requirements are added.	Permit, Section VI.C.2	40 CFR 122.44(b)(2) requires each NPDES permit to include standards for sewage sludge use or disposal. Biosolids requirements language was provided by USEPA Region IX's Biosolids Coordinator.
5. Cat Litter Public Outreach Program	Permit, Section VI.C.5	In accordance with USEPA's proposed conservation

Change	Section	Reason
		measures, the Discharger will be required to develop and implement a outreach program to address cat litter disposal to facilitate source reductions of T. gondii
6. Influent flow metering is required, rather than effluent flow metering.	Monitoring and Reporting Program, Section III	Due to the configuration of the treatment plant equipment, the existing effluent flow meter is not sufficiently accurate for compliance purposes. A comparison of actual effluent flow data to influent flow data suggests the effluent flow meter overestimates actual flow by approximately 25%. The newer influent flow meter is more accurate and reliable than the effluent flow meter, therefore is more appropriate for compliance purposes.
7. Effluent Acute Toxicity monitoring is removed.	Monitoring and Reporting Program, Section IV	In accordance with the 2005 California Ocean Plan, "The RWQCBs may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters." Staff will retain the effluent limitation of 4.3 TUa.
8. Effluent monitoring frequency for several priority pollutants is decreased from semiannually to annually.	Monitoring and Reporting Program, Section IV	Quantitative statistical analysis of a large number of historical contaminant measurements demonstrates that there is a low potential for non-compliance, and that the proposed effluent-monitoring reductions are warranted. This historical performance, and the cost of the monitoring justify the monitoring frequency reductions.
9. Surf zone samples are now required to be analyzed for Enterococcus in addition to Total and Fecal Coliform.	Monitoring and Reporting Program,	The 2005 Ocean Plan specifies that Enterococcus shall be monitored at all

Change	Section	Reason
	Section VI.A	stations where Total and Fecal Coliform is required for repeat sampling.
10. Vertical profiling of receiving water for light transmissivity, dissolved oxygen, pH, salinity, and temperature is reduced from 17 individual stations to 6 stations along an along-shore transect. A tow survey is now required. More specifically: "In addition to the vertical profiling conducted at the six fixed stations, a receiving-water survey shall be conducted by continuously towing an electronic instrumentation package at two depths around and across the zone of initial dilution. One survey shall be conducted in the upper water column, near the base of the shallow thermocline. Another survey shall be conducted immediately above the benthic boundary layer, approximately 5 meters above the bottom. The towed instrumentation package shall pass over the zone of initial dilution at least five times during the survey. Vessel speed and sampling rates shall be sufficient to collect at least one sample for every meter traversed."	Monitoring and Reporting Program, Section VI.A	Vertical profiles are not capable of defining the limited lateral extent of the effluent plume. Surveys with towed instrumentation will better assess compliance and effectiveness of the diffuser structure.
11. The Discharger is given the option to monitor dissolved sulfides in sediment pore water, rather than dissolved sulfides in an acid/heat digested sample. The pore water extraction technique is difficult and expensive, so this monitoring requirement may be discontinued by written approval of the Executive Officer if dissolved sulfides are not detected in any pore water sample from any benthic sediment monitoring station for one additional monitoring event (in addition to the October 2003 event).	Monitoring and Reporting Program, Section VII	Please see "Sulfides in Sediment" above.
12. Benthic Monitoring Station Nos. 2 and 7 replace Station No. 1 as the reference	Monitoring and Reporting	Please see "Marine Life" above.

Change	Section	Reason
station.	Program, Section VII	
13. The frequency of benthic sediment monitoring for Nonchlorinated Phenolics, Chlorinated Phenolics, Aldrin, Dieldrin, Chlordane, DDT, DDE, DDD, Endrin, PAHs, PCBs, and Toxaphene is reduced from annually to once in the life of the Permit (2006).	Monitoring and Reporting Program, Section VII.A	These compounds have never been detected in benthic sediment samples and are rarely if ever detected in effluent samples. When detected in effluent samples, they are detected at extremely low concentrations, which are not likely to accumulate in benthic sediments.
14. Annual monitoring reports are required to be submitted by April 1st of each year, rather than March 1st.	Monitoring and Reporting Program, Section X.B	The Discharger is currently required to submit several different monitoring reports simultaneously by March 1, therefore have requested an additional month to prepare and submit the annual report.
15. Cat litter Public Outreach Program annual reporting	Monitoring and Reporting Program, Section XI.D.1	As noted above, the Discharger is responsible for developing and implementing a cat litter disposal program. This reporting requirement obligates the Discharger to report activities conduction within the reporting year as well and propose changes to the program on an annual basis.
16. Sanitary Sewer Overflows Reporting and Notification	Monitoring and Reporting Program, Section XI.D.2	The Discharger is responsible for notifying and reporting sanitary sewer overflows in accordance with General Waste Discharge Requirements for Sanitary Sewer System, Order No. 2006-0003-DWQ.

Note that staff may propose additional changes as a result of public comments. Such changes will be discussed in the Comments and Responses section of the Staff Report for this item.

VI. PUBLIC PARTICIPATION

The Central Coast Water Board and USEPA are considering reissuance of a National Pollutant Discharge Elimination System (NPDES) permit for Morro Bay/Cayucos Wastewater Treatment Plant. As a step in the NPDES permit reissuance process, the Central Coast Water Board staff has developed a Draft NPDES Permit. The Central Coast Water Board and USEPA encourage public participation in the NPDES Permit reissuance process.

A. Notification of Interested Parties

The Central Coast Water Board and USEPA notified the Discharger and interested parties of its intent to reissue this NPDES Permit and provided them with an opportunity to submit their written comments and recommendations. Notification was provided through publication in the San Luis Obispo County Tribune on December 19, 2005, and through direct mailing of the Draft NPDES permit to the following known interested parties. Written comments were due February 3, 2006.

- Bruce Keogh and Bruce Ambo, City of Morro Bay
- Bonnie Connelly, Cayucos Sanitary District
- Mark Delaplane, California Coastal Commission
- Doug Coats, Marine Research Specialists
- Anjali Jaiswal, Natural Resources Defense Council
- ECOSLO
- Babak Naficy, Coastal Alliance
- Joshua Borger, Environmental Law Foundation
- Hillary Hauser, Heal the Ocean
- Peter Hernandez
- Rebecca Barclay

B. Written Comments and Responses

The following comments and responses are taken verbatim from the 2006 draft Permit staff report. The Central Coast Water Board considered these comments and responses at its hearing on May 11, 2006. Since the continued hearing on December 4-5, 2008, will be to discuss new evidence only, the Central Coast Water Board is not required to again review these comments and responses. They are included here to maintain a record of the 2006 proceedings.

Comment 1: Erin Stetzer of Pacific Grove, **Stephanie Sayler** of Salinas, **Glenn Wolfson** of Pacific Grove, **Lynn Harkins** of Cambria, and **Elissa Wagner** of Aptos, each sent the following identical email to Central Coast Water Board staff on January 5, 2006:

> "I am writing to express my dissatisfaction with the proposed timeline and the lack of protective measures for marine life in the Morro Bay/Cayucos Wastewater Treatment Plant upgrade plan. While I am encouraged by the plan to upgrade the

plant to full secondary treatment standards, the proposed timeline of nine and a half years is unnecessarily long. The plan should also contain innovative disinfection measures to protect the marine life in Morro Bay.

"These upgrades are long overdue. The Clean Water Act was passed back in 1972, and this sewage treatment plant is one of the last in California to be upgraded to national standards. Additionally, since the plant discharges wastewater less than a mile from shore and directly in the habitat of sea otters, it is critical that these upgrades occur as quickly as possible.

"Wastewater treatment plants across California, and of varying sizes, have been able to upgrade their facilities on shorter timelines. I urge you to reject the proposed timeline and demand the upgrades be done as fast as possible. The plan should also promote human health and a healthy marine environment by including technologies to eliminate harmful bacteria and pathogens from the wastewater. While secondary treatment is a step above current operations, I urge you to adopt a plan that includes advanced technology to prevent pollutants from entering the ocean.

"Thank you for considering my comments."

Staff Response 1: For several reasons discussed under *Settlement Agreement* above, staff disagrees that the proposed timeline is unnecessarily long. The facts that the Facility discharges less than a mile from shore and into the habitat of sea otters, and that other plants have upgraded faster, standing alone, do not necessitate that the Facility be upgraded "as quickly as possible." Rather, we must consider applicable law and the effects of the discharge on the marine environment and specific regulations. As discussed above and in staff's Evaluation of Compliance with Permit Requirements, there is no evidence that the discharge has adversely affected marine life or impaired beach water quality. There is little justification to require the Facility to be upgraded any faster than proposed.

Disinfection technologies will be determined through facilities planning, environmental review and permitting, and design, which are required tasks of the Settlement Agreement. Disinfection technologies must be carefully considered in conjunction with other treatment processes, which is not possible at this time, because those treatment processes are not known. If bacteria and pathogens are ever found to be harming marine life, the Central Coast Water Board will require appropriate treatment. Specification of disinfection technology in the Settlement Agreement is inappropriate. Staff recommends adoption of the Permit as proposed.

Comment 2: Central Coast Water Board staff received the following identical email from **2200+ people from across the nation** throughout January 2006, in response to a **Natural Resource Defense Council (NRDC)** Action Alert:

"Dear Water Quality Board Members:

"I urge you to improve the 9.5-year upgrade timeline now proposed by the Morro Bay/Cayucos sewage treatment plant. The Clean Water Act and state law require that this sewage plant shorten the proposed upgrade timeline so that it is as rapid as possible. Moreover, it is critical that specific measures be included in the sewage plant's permit assuring that it will protect the California sea otter.

"There is no reason that the Morro Bay community cannot meet the standard established by many similar small cities around California that have accomplished a similar upgrade in a fraction of the time. Adopting a shorter timeframe for the plant upgrade and requiring measures to protect the sea otter and other marine life are the only ways to preserve local waters, including Morro Bay's extraordinary estuary, for future generations. I am counting on you to take the necessary steps to protect these valuable coastal resources."

Staff Response 2: The Clean Water Act and state law do not require the upgrade timeline to be as "rapid as possible," as this email suggests. The Clean Water Act requires that the discharge meet the requirements for a 301(h) modification, and upgrade to full secondary treatment as quickly as possible if the discharge fails to meet the 301(h) requirements. USEPA has tentatively decided that the discharge meets those requirements. State and federal law require the discharge to comply with the Permit. As discussed in staff's Evaluation of Compliance with Permit Requirements, the discharge complies with the Permit.

There is no evidence that the discharge has adversely impacted the California sea otter. The existing Permit already includes multiple requirements to protect marine life. Staff disagrees that it is "critical that specific measures be included in the sewage plant's permit assuring that it will protect the California sea otter."

Simply comparing the Conversion Schedule of the proposed Settlement Agreement to upgrades of other small cities' facilities around California (or elsewhere) is inappropriate. No upgrade is the same. The circumstances and prior planning leading to those upgrades are different. In this case, the Discharger agreed to upgrade in order to avoid litigation regarding the 301(h) waiver and permit delays. Considering the time required to retain engineering consultants, plan the facilities, go through environmental review and permitting, obtain financing, design, and construct the project, the proposed Conversion Schedule is reasonable. The City of Morro Bay is interested in upgrading to tertiary treatment in order to institute water recycling. City representatives have indicated that they expect environmental review of tertiary treatment and recycling options will delay the environmental review. Staff agrees. Although some consideration of tertiary treatment as a project alternative will be required in any case, more extensive review will be necessary if tertiary treatment will be included in the proposed project. It is important to note that the proposed Conversion Schedule is the maximum time allowed to upgrade, and that any delay by the Discharger's results in stipulated penalties. There is plenty of incentive for the Discharger to complete the upgrade in less than 9.5 years. We understand that the Discharger is currently a year ahead of the schedule in the settlement agreement, so a shorter completion time is possible.

Comment 3: Central Coast Water Board staff received the following identical email from **110+ people from across the nation** throughout January and February 2006, in response to a **Defenders of Wildlife** member action alert:

> "As a supporter of Defenders of Wildlife and the California sea otter, I urge you to shorten the proposed Morro Bay sewage treatment plant upgrade timeline so that it is as rapid as possible. The proposed 9.5 years to upgrade this plant is too long. Moreover, it is critical that specific measures be included in the sewage plant's permit assuring that it will protect the nearshore marine ecosystem, one of whose key inhabitants is the California sea otter.
>
> "There is no reason that the Morro Bay community cannot meet the standard established by many similar small cities around California that have completed a similar upgrade in a fraction of the time. Adopting a shorter timeframe for the plant upgrade and requiring measures to protect the sea otter and other marine life is the only way to preserve local waters, including Morro Bay's extraordinary estuary, for future generations. I am counting on you to take the necessary steps to protect these valuable coastal resources."

Staff Response 3: Please see staff's previous responses.

Comment 4: Ruth Boysen of San Pedro, California, submitted the following email on January 9, 2006:

> "As the owner of property in Pismo Beach and a frequent visitor to the Central Coast I want to urge you to lessen the requested 9.5 year timeline by the Morro Bay/Cayucos sewage treatment plant. It is my understanding that state law and The Clean Water Act require that this sewage plant be upgraded as rapidly as possible!
>
> "There is no reason that the community of Morro Bay cannot meet the standard established by other small cities around California that have managed to complete a similar upgrade in a fraction of the time.
>
> "Specific measures should also be included in the sewage plant's permit specifically protecting the California sea otter. Completing the upgrade in a much shorter time and requiring measures to protect the sea otter and other marine life will preserve local waters for our grandchildren and all future generations.
>
> "If you don't want to do this for the future generations then consider that tourism is one of the major industries on the Central Coast. Tourists come to see the creatures they aren't able to see near their homes. It was [sic] seem economically unwise to put off the upgrade and therefore protecting the wildlife thereby destroying one of the major attractions to the beautiful Central Coast.

> "I hope I can count on you to take the necessary steps to protect these valuable coastal resources."

Staff Response 4: Please see staff's previous responses.

Comment 5: Matthew Haskett of Turlock, California, submitted the following email on January 9, 2005:

> "Please do not allow the sewage plan that threatens the sea otters to take 10 years to ugrade its facilities. Water quality needs to be improved as soon as possible; 10 years is too long."

Staff Response 5: Please see staff's previous responses.

The **City of Morro Bay** submitted extensive written comments on behalf of the Discharger on January 11, 2006. These comments are included here verbatim (without footnotes, for the sake of readability). Staff responses follow each specific comment.

Introductory (General) Comments:

"Despite our extensive detailed comments on the permit itself, we are immensely gratified by the cooperative effort between the staffs of Morro Bay, Cayucos, RWQCB, and the EPA throughout the permit process. Because of our mutual interest in a future upgrade of the treatment plant, development of the permit was an unusually long and involved process. The staffs of the four agencies should be applauded for promptly and effectively negotiating a mutually acceptable settlement agreement that identifies a reasonable conversion schedule for plant upgrades capable of meeting full secondary treatment requirements. All agency staffs worked cooperatively to establish the conversion schedule based on facility needs identification and analysis for the two respective communities, extensive public input and dialogue, as well as the best professional judgment of a respected environmental engineering firm. MBCSD is strongly committed to the schedule outlined in the settlement agreement and feels that it accurately reflects a continued commitment to protecting the receiving waters and local ecology. MBCSD looks forward to working with RWQCB and EPA staff during the implementation of the settlement agreement, and to RWQCB assistance in procuring funding for the upgrade project that will be the largest expenditure in the history of either Cayucos or Morro Bay. It is our hope that we can continue to work cooperatively by redirecting much of the monitoring and reporting costs toward our mutually agreed upon solution. MBCSD thanks both RWQCB and EPA staff for their cooperation and patience during this process.

"During the upgrade process, re-issuing a 301(h)-modified discharge permits to MBCSD is an environmentally sound decision supported by two decades of intensive monitoring. During that time, there have been no perceptible impacts from the MBCSD discharge. There are four major aspects of the MBCSD discharge that account for the lack of impacts.

1) Discharge volumes are small, only about 1 MGD;
2) Effluent solids concentrations are low, and close to secondary treatment standards;
3) The discharge is far removed (2700 ft) from the shoreline where the high-energy open-ocean environment rapidly disperses effluent beyond recognition within 50 ft of the diffuser structure; and
4) Effluent contaminant levels are low because domestic wastewater sources dominate in a service area devoid of heavy industry.

"During the upgrade of the MBCSD plant, the Regional Board and EPA decisionmakers can take comfort in the fact that there will be no tangible impact on the marine environment, or its beneficial uses, by allowing the MBCSD to continue operating under a 301(h)-modified permit. The principal reason for this is that this partial-secondary treatment plant is far below capacity, so nearly all of the effluent is already treated to secondary levels. In addition, the discharge will not materially change during the upgrade period because population growth in the service area is restricted by legislation. Consequently, the discharge volume will remain far below plant capacity and nearly all of the wastewater will continue to be treated to secondary levels. In addition, the intensive monitoring required as part of the 301(h) section of the Clean Water Act is "…among the most comprehensive of all municipal ocean discharges of less than 5 MGD in California." Consequently, the monitoring program will continue to be capable of quickly identifying any potential future impacts so that corrective action can be implemented in a timely fashion. Because of all these considerations, the Regional Board and EPA can rest assured that their decision to re-issue the 301(h)-modified permit to the MBCSD is based on sound reasoning and solid scientific data.

"Your consideration and reasoned response to the MBCSD's concerns [below] are greatly appreciated."

Staff Response: Comment noted.

Note: Dr. Douglas Coats or Marine Research Specialists, consultant to the Discharger, provides the following recommended technical revisions (Comments 6-25).

Comment 6: "…recommended revisions are listed in order of importance, with the highest priority changes listed first. References to pertinent page numbers and sections in the proposed NPDES permit are italicized.

"Remove the requirement for Acute Toxicity Testing [*Page E-10, Section E.A*]. There is no technical or regulatory justification for requiring acute toxicity testing of MBCSD effluent. As stated in the fact sheet [*Page F-22, Section F.V.7*], the California Ocean Plan (COP) does not require acute toxicity tests for dischargers that achieve the dilutions achieved by the MBCSD discharge. The COP cites the need for acute toxicity testing only "…*as necessary for the protection of beneficial uses of ocean waters*." There is no nexus between the

protection of beneficial uses and the requirement for acute bioassays on MBCSD effluent samples. There are four reasons for this:

a) Acute testing is unnecessarily redundant with the chronic testing that is already required as part of the NPDES Permit. Chronic tests provide far more accurate and sensitive measures of effluent toxicity.

b) Acute tests conducted on MBCSD effluent result in erroneous measures of toxicity that provide no insight into the actual toxicity of the discharge. Over two decades of acute testing have demonstrated that the presence of ammonia in the MBCSD effluent samples severely compromises the accurate determination of acute toxicity.

c) Although ammonia interference causes the measurements to be significantly inflated, the acute toxicity levels of the MBCSD discharge reported over the last two decades have been less than half of the effluent limitation cited in the NPDES Permit. Consequently, even based on artificially inflated bioassay results, the discharge cannot be considered an acutely toxic threat to beneficial uses of receiving waters.

d) The acute toxicity limit is intended to prevent lethality to organisms passing through the acute mixing zone. For the MBCSD discharge, the prescribed mixing zone is highly localized around the outfall, extending only 1.5 m (4.9 ft) from the point of discharge. At that location, the effluent is diluted more than 100-fold, and is 25 times more dilute than the effluent tested in the bioassays. The only conceivable beneficial use that could be impacted would be fishing. However, finfish are likely to avoid the turbulent discharge jet. Additionally, acute bioassays continuously expose organisms to high effluent concentrations over a four-day period. Clearly, they do not reflect the brief duration of any potential finfish exposure to dilute concentrations of MBCSD effluent."

Staff Response 6: Staff agrees that chronic toxicity testing is a more sensitive and accurate measure of whole effluent toxicity than acute toxicity. Acute toxicity testing is fraught with problems, including interference by ammonia. The 2001 California Ocean Plan recognizes this, in stating:

"Dischargers shall conduct chronic toxicity testing for ocean waste discharges with minimum initial dilution factors ranging from 100:1 to 350:1. The RWQCBs may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters."

In this case, with an initial dilution of 133:1, chronic toxicity testing provides adequate protection of beneficial uses. Acute toxicity testing is unnecessary. Staff recommends removal of the acute toxicity-testing requirement from the Monitoring and Reporting Program. The daily maximum Acute Toxicity effluent limitation of 3.9 TUa remains in the Permit.

Comment 7: "Require surfzone sampling only when effluent coliform densities are elevated [*Page E-13, Section E.VI.A*]. The proposed NPDES Permit requires the collection and analysis of surfzone samples on a periodic basis. Instead, surfzone sampling should only be required when effluent total coliform bacteria tests exceed 2,400 MPN/100 mL. Once triggered, surfzone sampling should continue on a daily basis until the effluent total coliform concentration returns to compliance. The rationale often proposed for periodic surfzone sampling in other NPDES permits is that "*Surf-zone monitoring provides a public service….*" However, this rationale does not apply to the MBCSD discharge because it is in direct conflict with the Clean Water Act (40 CFR 125.63a), which requires that the scope of 301(h) monitoring programs be "*…limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge*." Triggered surfzone monitoring satisfies this requirement; regular periodic monitoring, as currently specified in the proposed NPDES Permit, does not. Two decades of monitoring data demonstrate that periodic surfzone monitoring does not lend insight into the MBCSD discharge for the following reasons:

a) Disinfection of effluent prior to discharge is highly effective at reducing bacterial densities to levels below the limits established for beneficial use. Thus, at the end of the treatment process, the effluent already typically meets the bacterial standards for ocean waters. Because of this, the EPA Tentative Decision Document states that "*…shoreline contamination by way of the applicant's discharge is not of reasonable concern*."

b) Rapid dilution of effluent by more than 133-fold shortly after discharge reduces even moderately high bacterial densities to non-detectable levels within a few meters of the discharge point. Clearly, surfzone samples are too distant from the discharge to lend any insight into potential discharge-related impacts from anything but the very highest bacterial densities in the effluent.

c) In contrast to bacterial densities in effluent samples, surfzone samples are often elevated due to onshore runoff. This and other non-point source contamination severely compromises any determination of the potential influence from the effluent discharge.

d) The periodic surfzone monitoring effort specified in the NPDES Permit duplicates sampling already conducted by the San Luis Obispo County Department of Health."

Staff Response 7: The Discharger's reasons for reducing surfzone monitoring are valid. The Discharger consistently complies with its effluent and receiving water bacteria requirements. The Permit specifies that the discharge shall not cause the following bacterial limits to be exceeded in the water column:

Parameter Applicable to any 30-day period	Total Coliform Organisms (MPN/100 mL)

Median	70
90% of samples	230

Staff analyzed all surf zone total coliform monitoring data collected since 1993. The data set consisted of 385 to 390 samples at each monitoring station. With the exception of the monitoring station at the mouth of Morro Creek, the annual median at each monitoring station was well below 70 MPN/100 mL. The greatest median value was 17 MPN at Station F (nearest to Morro Rock) in 1995. With the exception of the Morro Creek monitoring station, no less than 98% of samples from each monitoring station were below 230 MPN/100 mL. County of San Luis Obispo Environmental Health Services has been monitoring this beach at stations 75 feet north of the Morro Rock parking lot (near Station F), and at the projection of Atascadero Road (near Station E) weekly during summer months since November 2001, and weekly during winter months since February 2002. Heal the Bay's Beach Report Card (see www.healthebay.org/brc/annual/2003/counties/slo/grades.asp), which is based on EHS' monitoring results, gave both locations an A grade for Summer 2002, an A+ for Winter 2002-2003, and an A+ for Summer 2003. The Discharger's periodic surfzone monitoring is redundant with EHS' beach monitoring program. Reductions in surfzone monitoring are justified.

Since the original purpose of the surfzone monitoring requirement is to ensure that the discharge is not causing exceedances of receiving water bacteria requirements, and periodic monitoring demonstrates that the normal discharge is not causing exceedances, staff believes that triggered surf-zone monitoring, based on exceedances of the Total Coliform effluent limitation, is appropriate. Staff proposes the following change to the surfzone monitoring section of the Monitoring and Reporting Program:

> "Grab samples shall be taken at all surf-zone monitoring stations ~~weekly during summer months (May-October) and at least monthly during winter months (November-April)~~ <u>whenever effluent Total Coliform bacteria in effluent exceeds 2400 MPN/100 mL. Such monitoring shall continue daily for four consecutive days or until effluent returns to compliance with the 30-day median of 23 MPN/100 mL, whichever is longer. The Executive Officer or USEPA may require daily surf-zone monitoring to continue beyond 4 days if deemed necessary to determine compliance with receiving water limitations."</u>

This triggered surfzone monitoring requirement is more protective of beneficial uses than periodic monitoring because it is more focused on determining compliance when receiving water exceedances are likely to occur. This triggered monitoring requirement is consistent with other similar discharges in the Central Coast Region (e.g., Carmel Area Wastewater District). San Luis Obispo County Environmental Health Department will fulfill the role of periodic monitoring by monitoring this beach weekly during summer months and monthly during winter months

Comment 8: "Remove all statements that imply past exceedances of permit limits are somehow related to less-than-secondary treatment standards. [*Page*

***F-11 and F-12, Section F.IV.A.4*]. ** None of the specious relationships between treatment levels and violations outlined in the Fact Sheet of the NPDES Permit are based on fact.

a) The record of violations associated with other treatment plants within the region shows that there is no relationship between permit violations and treatment level. In fact, plants that attain full secondary or even tertiary treatment levels have more than ten-times the number of violations of the MBCSD plant in the past five years.

b) The MBCSD effluent often meets or exceeds secondary treatment standards, so it is misleading to suggest that the limited reduction in the suspended solids concentration achieved by conversion to full secondary treatment would suddenly eliminate all future exceedances of permit limits. Instead, the exceedances largely occur because of unavoidable mechanical malfunctions of equipment. In place of these specious arguments, it is reasonable to suggest that many years from now, when the major components of the treatment process approach the end of their useful life, an increase in permit exceedances might be expected.

c) The discussions associated with the exceedances erroneously imply that occasional non-compliance with the effluent limitations in the NPDES Permit is the only consideration for the permit renewal. In fact, the ability to routinely meet water-quality standards promulgated in the California Ocean Plan (COP) is the primary consideration. The intensive monitoring associated with the MBCSD discharge has consistently demonstrated that the discharge regularly achieves the required receiving-water standards, yet, there is no mention of this fact in the Fact Sheet.

d) The following erroneous statements concerning the exceedances require correction for the reasons indicated:
i) [***Page F-11, Section F.IV.A.4***] "*The reported dioxin concentration ~~value~~ was 0.56 pg/L, 8% greater than the effluent limit. This exceedance was much smaller than the 20% instrumentation calibration standard. The Dischargers state the particular dioxin congener that was responsible for the violation is ubiquitous in the environment ~~and was present in the influent to the treatment plant~~. The Dischargers also stated that the violation could be attributed to laboratory contamination, which is commonplace when measuring concentrations at sub-parts-per-quadrillion. ~~Staff suspects the dioxin could have been formed in the disinfection process of the treatment plant, where a relatively high concentration of organic matter is combined with a high dose of chlorine.~~*" The last statement is incorrect because neither the solids concentration nor the chlorine dose at the time of the dioxin measurement was particularly high relative to other effluent samples, when dioxin measurements were well below the permit limit. The Fact Sheet fails to point out the fact that the excess 8% is well below the 20% resolution of the chemical assay. Finally, the MBCSD never stated that the dioxin was present in the influent, although this is a plausible assumption given that drinking water is also often chlorinated.
ii) [***Page F-11, Section F.IV.A.4***] "*~~Notably, this violation might not have occurred had the facility been designed to meet secondary treatment standards, because a solids removal system in the chlorine contact chamber would not likely be necessary.~~*"

This statement is incorrect because the solids removal system in the chlorine contact chamber has nothing to do with secondary treatment. Instead, it has to do with the fundamental redesign of facility in 1985. Certainly, a new facility could be designed so that solids would not accumulate in a tank that was originally designed as a clarifier, but that could be accomplished without achieving secondary treatment. Even so, solids would accumulate somewhere in the process. Conversely, even if the suspended solids concentrations were to meet full secondary treatment standards, which the effluent has for 17 of the last 23 months, solids would continue to settle in the contact tank.

iii) [***Page F-12, Section F.IV.A.4***] "~~*Again, these violations might not have occurred had the facility been designed to meet secondary treatment standards, because solids would not be present in the chlorine contact chamber at levels that would alter the chlorine dosing process. (Similar problems have not occurred at facility's that meet secondary treatment standards.)*~~ Again, this statement is blatantly incorrect. The violation was caused by the design of the sampling device that controlled the chlorination/dechlorination process, and had nothing to do with the suspended-solids load. The sample-supply line was subsequently redesigned to improve flow and filter screens are now cleaned more often. These changes eliminated the sampling problem and chlorine violations have not occurred since. According to representatives from other treatment plants, identical sampling devices at full-secondary and tertiary facilities require the same type of maintenance regimen."

Staff Response 8: Upon reviewing the Fact Sheet again, staff believes the subject statements were somewhat speculative and unnecessary, and agrees to the recommended changes.

Comment 9: "Remove cross-shore benthic monitoring stations B-8 and B-9 [*Page E-3, Section E.II*] and add replicate sampling for composite chemical analyses at the remaining stations [*Page E-14, Section E.VII.A*]. The locations of cross-shore Stations B-8 and B-9 are shown in the figure on the next page, [but not included here]. These stations were added in the last permit but were subsequently found to be heavily influenced by natural depth gradients. The depth-related differences at these stations mask potential discharge-related impacts and render the data at these stations of little use. In exchange for the reduced monitoring effort at these cross-shore stations, the grab sample replication should be increased at the remaining (along-shore) stations. Variability in trace-metal concentrations significantly increased after replicate grab sampling was dropped in the current permit's monitoring program. Consequently, chemical analysis of a composite of three replicate grab samples at Stations B-2 through B-7 should be reinstated to stabilize the determination of chemical concentrations. To implement this requirement, the last sentence in the last paragraph on page E-14 should read: "~~*A grab sample*~~ Three grab samples *shall be collected using a 0.1 m^2 Van Veen grab sampler*~~ at all benthic monitoring stations, and analyzed~~ at each benthic monitoring station. A composite of these three samples should be analyzed *as follows:*"

Staff Response 9: Staff agrees that the cross-shore configuration of benthic monitoring stations B-8 and B-9 masks potential discharge-related impacts. B-8 and

B-9 are clearly influenced more by depth differences than by the discharge. (If B-8 and B-9 were impacted more by the discharge than depth, then the along-shore stations that are the same distance from the outfall as B-8 and B-9 would exhibit a similar spatial gradient, which is not the case.) Replicate grab-sampling at the along-shore benthic monitoring stations is a fair tradeoff for removal of B-8 and B-9. Staff proposes to include the requested change.

Comment 10: "Footnote the annual minimum frequency of analysis in the effluent monitoring requirements for the protection of human health to state that "*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*" [*Pages E-6, E-7, and E-8, Section E.IV.A*]. Adding this footnote is consistent with other 301(h) NPDES discharge permits in the region. Moreover, quantitative analyses of a decade of effluent measurements has definitively demonstrated that the MBCSD discharge has a high compliance potential for the chemical constituents currently monitored on a semi-annual basis. The results from this reasonable potential analysis should be included in the rationale for changes to the effluent monitoring frequency [*Page F-22, Section F.V.8*] as follows: "~~*None of these priority pollutants were detected in effluent by the several sampling events during the life of the existing*~~ Quantitative statistical analysis of a large number of historical contaminant measurements demonstrates that there is a low potential for non-compliance, and that the proposed effluent-monitoring reductions are warranted. *This* historical *performance, and the cost of* ~~*this*~~the *monitoring justifies* the ~~*this*~~ *monitoring* ~~*frequency*~~ *reduction*s. ~~*Effluent monitoring for those priority pollutants which were detected during the life of the existing Permit remains the same.*~~"

Staff Response 10: Dischargers always have the right to request monitoring reductions, so the requested footnote is unnecessary. However, for the sake of consistency with other permits, staff agrees to add the footnote as requested. The Discharger should note that staff is not authorized to grant monitoring reductions. The Central Coast Water Board, in addition to USEPA, must approve reductions. Staff also agrees to include the additional rationale for the proposed monitoring frequency reductions.

Comment 11: "Change the minimum sampling frequency for effluent metals from semi-annually to annually [*Page E-5, Section E.IV.A*]. Analysis for effluent metals should conform to the annual sampling frequency required of other priority pollutants. The fact that metals have been detected in past effluent samples does not provide an adequate rationale for the semi-annual sampling frequency. The statement concerning the reductions in monitoring, "*Effluent monitoring for those priority pollutants which were detected during the life of the existing Permit remains the same.*" [*Page F-22, Section F.V.8*] suggests that because a compound has been detected historically, it has a potential for non-compliance. However, such an approach provides no comparison between a concentration that is environmentally significant and the detectable concentration, which is largely a measure of a laboratory's analytical ability. In fact, trace metals differ from other priority pollutants

because they occur naturally in the environment at detectable levels. Some are even required by organisms as nutrients. The fact that they occur naturally in the environment should not be a reason to intensify monitoring. On the contrary, the reasonable-potential analyses of historical effluent measurements has definitively demonstrated that the potential for future compliance for metals concentrations is high, and that annual sampling is sufficient to demonstrate continued compliance with the COP."

Staff Response 11: Staff does not accept the Discharger's rationale for reducing effluent monitoring frequency for metals. The metals are occasionally detected in effluent, which justifies more frequent monitoring than the other priority pollutants. The Discharger suggests that staff is intensifying monitoring. This is not the case. The proposed semi-annual effluent monitoring frequency for metals remains the same as the existing permit.

Comment 12: "Reduce the number of initial chronic screening tests from "…*no fewer than three tests*" to "…*no fewer than two tests*" [*Page E-11, Section E.V.B*]. Ostensibly, multiple screening tests are conducted to account for potential effluent variability. However, MBCSD effluent varies semiannually, and requiring more than two semiannual tests is redundant. There is no regulatory basis for the three-test requirement because the COP does not specify the length of an initial screening period for chronic tests. The proposed duration of two tests is reasonable and conforms to the intent of the COP."

Staff Response 12: Staff agrees that an initial screening period of two tests is appropriate. Most similar dischargers in the Central Coast Region are only required to determine the most sensitive species through one screening. Two tests should adequately account for any effluent variability. Staff proposes to accept the change as requested.

Comment 13: "Replace the seventeen instances of the statement "*The discharge shall not cause…*" with "*Wastewater constituents within the discharge shall not cause:*" [*Pages 15 and 16, Sections V.A, V.B, V.D, V.E, V.F, V.G, V.H, V.I, V.J, V.K, V.L, V.M, V.N, V.O, V.P, V.Q, and V.R*]. This change is consistent with the intent of the COP and is particularly important for the MBCSD discharge because, on occasion, the naturally occurring bottom seawater that is entrained in the buoyant effluent plume has different properties from shallower receiving waters. Receiving-water changes in suspended solids, dissolved oxygen, and other constituents that result from the movement of ambient seawater should be distinguished from those caused by the presence of effluent constituents."

Staff Response 13: The subject discharge is unique in that the offshore monitoring program is powerful enough to distinguish entrainment of a naturally-occurring turbid bottom seawater layer by the buoyant effluent plume from changes resulting from effluent constituents. Staff agrees that movement of seawater should be distinguished from changes caused by the presence of effluent constituents. Staff proposes to accept the change as requested.

Comment 14: "Remove the requirement for testing dissolved-sulfide concentrations in benthic porewater samples [*Page E-15, Section E.VII.A, Line 3 of Sampling-Frequency Table and Footnote 18; Page F-15, Section F.IV.B.5, Last Sentence of the 1st full Paragraph; Page F-22, Section F.V.11*]. The additional year of sampling required in the footnote for elimination of sulfide sampling has already been conducted, and the stated requirement has been met. The MBCSD has performed the high-resolution sulfide analysis on porewater samples on three separate sampling occasions, in 2003, 2004, and 2005. None of the 27 samples contained detectable sulfide concentrations. Moreover, elevated sulfide concentrations in porewater are usually restricted to quiescent marine and estuarine environments, where there are high concentrations of organic constituents. Often these benthic environments are also hypoxic. This is not the case for the coarse sand sediments surrounding the MBCSD outfall, which are intensively reworked by waves and currents."

Staff Response 14: When originally drafting the proposed permit in 2003, staff proposed to give the Discharger the option to monitor Dissolved Sulfide in sediment porewater to decrease variability of results. The porewater extraction technique is relatively difficult and expensive, so staff further proposed that this monitoring requirement may be discontinued by written approval of the Executive Officer if Dissolved Sulfides are not detected in any porewater sample from any benthic sediment monitoring station for one additional year. Since the Discharger has used the porewater extraction technique and not detected any Dissolved Sulfides at any station for two additional years, the Discharger has met this requirement. Staff therefore proposes to remove the requirement for testing Dissolved Sulfides in sediment porewater as requested.

Comment 15: "Revise the locations of the surfzone monitoring stations to conform to historical measurement locations [*Page E-2, Section E.II*]. The coordinates of the surfzone monitoring locations provided in the monitoring-location table in the permit do not coincide with the along-shore distances cited in the same table. Moreover, neither the coordinates nor the along-shore distances coincide with the precise locations where surfzone samples have been collected over the past two decades. These inconsistencies only became known after analysis of detailed navigational data collected during a recent shoreline survey. The revised surfzone monitoring stations should be as follows:

SZ-A1	Upcoast Reference	35º 23'58" N	120º 52'07" W	1330 m (4363 ft) N
SZ-A	Upcoast Midfield	35º 23'45" N	120º 52'04" W	912 m (2992 ft) N
SZ-B	Upcoast Nearfield	35º 23'31" N	120º 52'00" W	488 m (1602 ft) N
SZ-C	Onshore of Diffuser	35º 23'15" N	120º 51'57" W	0
SZ-D	Downcoast Nearfield	35º 23'02" N	120º 51'55" W	426 m (1398 ft) S
SZ-E	Downcoast Midfield	35º 22'46" N	120º 51'54" W	922 m (3026 ft) S
SZ-F	Downcoast Reference	35º 22'24" N	120º 51'53" W	1602 m (5250 ft) S

Staff Response 15: Staff appreciates the Discharger's attention to these details, and proposes to accept these changes as requested.

Comment 16: "**Clarify the requirement that "*Dilution and control water should be obtained from an unaffected area of the receiving waters*" [*Page E-11, Section E.V.B*].** The statement should be modified to specify "*Dilution and control water should be obtained from an unaffected area ~~of the receiving waters~~ <u>of the open ocean along the Pacific coast.</u>*" Otherwise, the statement could be incorrectly interpreted to mean that dilution and control waters used in the chronic bioassays need to be collected from the region around the outfall. That would be an onerous and unnecessary requirement. In contrast to discharges within enclosed bays, the receiving waters of the open ocean are relatively uniform and there is no advantage to collecting seawater near the outfall, as opposed to seawater collected in the open ocean near the toxicity testing facility."

Staff Response 16: Staff agrees, and proposes to accept this change as proposed.

Comment 17: "**Focus the discussion of toxoplasma and sea otters [*Page F-19 and F-20, Section F.IV.B.8*].** The discussion provided in the Fact Sheet under Section F.IV.B.8 misrepresents the potential for impacts from the MBCSD discharge, and fails to clearly state, at the beginning of the discussion, the empirical fact that the MBCSD discharge is not responsible for the observed toxoplasmosis in the local sea otter population. In particular, it does not fully discuss the implications of mussel-testing results, which unequivocally demonstrate that the MBCSD discharge cannot be the source of *Toxoplasma gondii* infection in sea otters. The Fact Sheet also fails to point out that the mussel analyses determined that the MBCSD discharge does not contain other bacterial pathogens such as *Campylobacter, Clostridium perfringens, Plesiomonas shigelloides, Salmonella, and Vibrio* spp. (*cholerae, parahaemolyticus*, etc.). Additionally, the Fact Sheet cites research published by Miller et al, but does not discuss the implications of their finding that "…*seropositivity to T. gondii was not significantly associated with …proximity to sewage outfalls (P=0.955) but was highly correlated with freshwater flow (P<0.001)*." This finding clearly demonstrates both the

overwhelming influence of non-point source contamination, and the lack of influence from wastewater discharges. The rest of the toxoplasmosis discussion in this section of the Fact Sheet is either not pertinent to this NPDES permit, is highly speculative, or has since been proven wrong. Consequently, the last full paragraph on Page F-19 should be eliminated from the Fact Sheet in its entirety. In particular, discussing the details of the high toxoplasmosis infection rates in otters near Morro Bay is unwarranted given that they are unrelated to the discharge. Similarly, discussing early speculation that high infection rates might be related to "…*the only discharge with a 301(h) Waiver in the studied area*," is clearly unfounded since, as stated later in the Fact Sheet, "… *the subject discharge is not a source of T. gondii loading to Estero Bay*.""

Staff Response 17: Staff appreciates the Discharger's concern regarding its discussion of toxoplasma and sea otters in the Fact Sheet, but believes the discussion is balanced and complete. Staff does not accept the Discharger's recommended changes.

Comment 18: "**Remove tributyltin as a monitoring constituent [*Page E-6, Section E.IV.A*].** Tributyltin was eliminated from the effluent monitoring program in the current permit because it has never been detected in MBCSD effluent. Also, its use is now restricted within the U.S. and it is not a likely constituent of MBCSD effluent. Instead, its distribution in the marine environment is primarily linked to its use as an anti-fouling additive to bottom paint on large ships, and detectable levels tend to be associated with relict contamination within the seafloor sediments of very large harbors."

Staff Response 18: Staff checked the existing monitoring program and confirmed that effluent tributyltin monitoring is not required. Staff proposes to remove the effluent tributyltin monitoring requirement as requested.

Comment 19: "**Revise the description of the effluent sampling location [*Page E-2 (Section E.II)*].** The effluent sampling location should not coincide with the location of the offshore diffuser structure, as it is currently listed in the NPDES Permit. Instead, effluent samples are collected at the air-relief structure, which is located onshore within the confines of the treatment plant at 35° 22' 47"N, 120° 51' 40"W. This location is downstream of any in-plant return flows or disinfection units, and is the last access point before the wastewater flows into the outfall."

Staff Response 19: Staff agrees that the specified effluent sampling location should be the Facility's air-relief structure, not the offshore diffuser structure. Staff proposes to accept this change as requested.

Comment 20: "**Modify and move the following statement to a footnote on the appropriate constituents: "*The mass based goals determined from the 99th percentile of historical effluent concentrations and a flow of 2.06 MG*" [*Page E-8, Section E.IV.B*].** The statement is unclear as originally written. It should be replaced by "*The performance-based mass emission goal was determined from the 99th*

percentile of historically detected effluent concentrations, and a flow of 2.06 MGD." It should be a footnote on the following nine constituents: arsenic, copper, zinc, total cyanide, toluene, benzene, chloroform, halomethanes, and tetrachloroethene."

Staff Response 20: Staff agrees with this comment and proposes to accept this change as requested.

Comment 21: "Provide a footnote to "*Effluent Limitations*" stating that "*The daily mass emission calculations are based on the average design flow rate of 2.06 million gallons per day (MGD).*" [*Page 11, Section IV.A*]. Normally, mass emissions would be based on the effluent peak seasonal dry weather flow of 2.36 MGD that is stated in Section IV.A. However, in this version of NPDES Permit, the mass emissions are computed from the average design flow rate. This results in more restrictive limitations on mass emissions. This fact should be clarified in a footnote. Otherwise, the computed mass-emission limitations might be thought to be in error."

Staff Response 21: Staff agrees with this comment and proposes to accept this change as requested, except that the footnote is more appropriately added to Section IV.C.5, not Section IV.A.

Comment 22: "Remove the statement concerning the predictive ability of the monitoring and reporting program (MRP) [*Page 6, Section II.K*]. The finding, "*The MRP is not capable of predicting future impacts to water quality and beneficial uses resulting from significant increases in pollutant loading*," is inappropriate and misleading. First, it adds nothing to an assessment of the MRP based on its intended use because "…*significant increases in pollutant loading*" are not proposed as part of this permit. Second, it is misleading because the intensive and well-designed monitoring program is capable of detecting small increases in pollutant loading, and is capable of detecting potential discharge-related impacts regardless of their cause. In accordance with its intent, the MRP acts as a sentinel for untoward influences from the discharge, thereby allowing timely implementation of corrective actions that limit potential "…*future impacts to water quality and beneficial uses*…""

Staff Response 22: Staff agrees this finding is somewhat misleading, and proposes to replace it with the following, taken from the MRP:

> "The MRP is intended to: a) document short and long-term effects of the discharge on receiving waters, sediments, biota, and on beneficial uses of the receiving water; b) determine compliance with NPDES permit requirements and conditions; and c) assess the effectiveness of industrial pretreatment and toxics control programs."

Comment 23: "Qualify the discussion of Total Suspended Solids (TSS) exceedances [*Page F-10, Section F.IV.A.1*]. As written, the statement concerning the TSS exceedances imply they are a regular occurrence. This is not the case, and the following statement should be qualified as indicated: "*…thus the long-term average effluent TSS concentration is far below these limitations. However, these*

limitations were violated on three related *occasions* during a brief period in 2002. S~~s~~*ince 1998*, there have been no other exceedances of the TSS limit.""

Staff Response 23: Staff did not intend to imply that effluent TSS violations are a regular occurrence. Staff proposes to accept these minor changes to the Fact Sheet as requested.

Comment 24: "**Augment the statement concerning biosolids in the facility description [*Page F-3, Section F.II.A*].** The biosolids statement should be augmented to read: "Historically, b~~B~~*iosolids* have been~~*are*~~ *anaerobically digested and dried, composted, and then trucked to the San Joaquin Valley for use as a soil conditioner*. However, in the past two years, the MBCSD has successfully implemented a composting operation at the treatment plant that will allow beneficial reuse of biosolids locally."

Staff Response 24: Staff proposes to accept this change as requested.

Comment 25: "**Remove the two-sentence preamble to the section on Receiving Water Limitations [*Page 15, Section V*].** In its current form, the statement is ambiguous and unnecessary. It states, "*Receiving water quality is a result of many factors, some unrelated to the discharge*. *This permit considers these factors and is designed to minimize the influence of the discharge to* [on] *the receiving water*." This statement ambiguously implies that the permit considered factors unrelated to the discharge to minimize its influence. The statement adds nothing to the rationale for receiving-water limitations."

Staff Response 25: Historically, this statement has been included in most discharge permits in the Central Coast Region to protect dischargers from receiving water quality factors that are beyond the discharger's control. Staff agrees the statement "this permit considers…" is ambiguous. Since the Discharger's monitoring program is powerful enough to discern between discharge-related impacts and receiving water factors beyond its control, staff also agrees this statement is unnecessary. Staff therefore proposes to remove this statement as requested.

Note: The following comments were provided by the Discharger's staff, and were titled as "Recommended Corrections to Typographical Errors, and other Inaccuracies and Discrepancies." Only the more significant comments are included here. The very minor clerical corrections recommended by the Dischargers that are not included here were made as recommended.

Comment 26: "**Use consistent and accurate terminology when referring to the 301(h)-modified NPDES discharge permit issued to the MBCSD.** The only accurate descriptor of the permit or its requirements is "*modified*." The Clean Water Act only uses the term "*modified*" in its description of Section 301(h). It never uses other terms that are commonly misapplied to the Act, such as "*variance*" and "*waiver*." These other terms are misnomers, because Section 301(h) only modifies three of the secondary treatment requirements and all other secondary treatment standards still

apply. Use of the term "*waived*" gives the misleading impression that secondary treatment requirements are eliminated altogether. All instances where these misnomers are used in the draft MBCSD permit should be changed to use the term "*modified*"…[comments then specify all sections of the draft where "modified" should be used instead of "variance" or "waiver."]

Staff Response 26: *"Modified"* is the terminology used in the Clean Water Act, therefore staff has revised the permit to only use *"modified,"* not *"variance"* or *"waiver."*

Comment 27: "**Use consistent and accurate terminology when referring to the MBCSD as the "***Permittee*" or "*MBCSD*," not the "*Discharger*." This change implicitly acknowledges that the MBCSD, like the Regional Board, as a branch of government providing a valuable public service to its constituents. The term "*Discharger*" connotes that nothing of value is being achieved by the MBCSD's treatment and subsequent discharge of municipal wastewater. Specifically, modify the first sentence of Section II.A on Page 4 as follows: "*Background. The City of Morro Bay and Cayucos Sanitary District (hereinafter* MBCSD~~*Dischargers*~~*)…*," and modify the subsequent references to "*discharger*" accordingly."

Staff Response 27: Staff acknowledges that the City of Morro Bay and Cayucos Sanitary District provide a valuable service to its constituents. Staff disagrees that the term *"Discharger"* connotes that it achieves nothing of value. *"Discharger"* is a term used in Clean Water Act and the California Water Code and the term the Water Boards typically use to refer to all persons discharging waste pursuant to waste discharge requirements, including NPDES Dischargers. *"Discharger"* remains used in the permit.

Comment 28: "Correct the Conversion Schedule to conform to the Conversion Schedule contained in the *SETTLEMENT AGREEMENT FOR ISSUANCE OF PERMITS TO AND UPGRADE OF THE MORRO BAY-CAYUCOS WASTEWATER TREATMENT PLANT* that was negotiated by MBCSD and RWQCB staff [*Page 8*]."

Staff Response 28: The Conversion Schedule included in the draft was an old version by the Discharger's consultant Carollo Engineers, and is corrected in the proposed permit, and in this staff report, as requested.

Comment 29: "**Correct the Six-Month Median Effluent Limit for silver to 0.07 mg/L [*Page 12, Section IV.C.2*].** The NPDES Permit incorrectly specifies a limiting concentration for silver as 0.09 mg/L. This concentration does not account for the background concentration of silver in seawater that is specified in the COP."

Staff Response 29: Correction made. Staff appreciates the Dischargers' diligence in pointing out a correction that results in a slightly more stringent limitation.

Comment 30: "**Provide footnote "b" that is associated with the effluent limitations for cyanide [*Page 12, Section IV.C.2*].** The NPDES Permit indicates that cyanide has a footnote "b," but does not provide the footnote. According to the COP,

the footnote should read as follows. "*If a discharger can demonstrate to the satisfaction of the Regional Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR PART 136, as revised May 14, 1999.*""

"**Add a footnote that allows the effluent limitation for chromium (III) to be met as a total chromium limitation [*Page 12, Section IV.C.3*].** This is consistent with footnote #2 applied to hexavalent chromium on Page 11. It is also consistent with the current discharge permit."

Staff Response 30: Staff mistakenly omitted these footnotes from the draft, therefore has added them to the proposed permit, as requested.

Comment 31: "**Correct the Average Monthly Effluent Limit for chloroform to 17.4 mg/L [*Page 13, Section IV.C.4*].** The NPDES Permit lists an incorrect limit (1.74 mg/L)."

Staff Response 31: Staff recalculated this chloroform effluent and checked the previous permit, and verified that the limit should be 17.4 mg/L. The chloroform limit is corrected as requested.

Comment 32: "**Correct the units on the Six-Month Median Effluent Limit for heptachlor and heptachlor epoxide to ng/L [*Page 13, Section IV.C.4*].** The NPDES Permit specifies heptachlor limiting concentrations that are associated with units of ng/L rather than the units of pg/L, which are incorrectly listed in the NPDES Permit."

Staff Response 32: The heptachlor and heptachlor epoxide limits in the draft permit are correct and remain unchanged. Units of pg/L are more appropriate than units of ng/L, because ng/L requires an inordinate number of significant figures.

Comment 33: "**Change the type of sample for chlorinated phenolics from composite to grab [*Page E-5, Section E.IV.A*].** This conforms to the sample type of non-chlorinated phenolic compounds. The sample type for endosulfan, which is the next parameter in the list below non-chlorinated phenolic compounds, should be explicitly spelled out as a 24-hour composite so the continuation marks for compounds listed below it are correct."

"**Change the type of sample for radionuclides from grab to composite [*Page E-5, Section E.IV.A*].** This conforms to the historical sample type used to determine radioactivity."

"Change the type of sample for bis(2-chloroisopropyl) ether from grab to composite [*Page E-6, Section E.IV.A*]. This conforms to the sample type of the other related constituents."

Staff Response 33: Staff agrees these corrections are appropriate. Corrections made as requested.

Comment 34: "**Change the mass-emission goal for total cyanide to 71 kg/yr [*Page E-8, Section E.IV.B*].** The revision is based on the measurement of a detectable cyanide concentration in July 2000. Because of this detection, it is now one of the nine compounds potentially subject to antidegradation analysis should its mass emission increase above the specified limit.

Change the mass-emission goal for benzene to 12 kg/yr [*Page E-9, Section E.IV.B*]. The revision is based on the measurement of a detectable benzene concentration in July 1999. Because of this detection, it is also one of the nine compounds potentially subject to antidegradation analysis should its mass emission increase above the specified limit.

Change the mass-emission goal for dioxin to 1.48 mg/yr [*Page E-10, Section E.IV.B*]. This is the correct emission based on the permit limit of 0.52 pg/L."

Staff Response 34: Staff checked these numbers and found these changes to be appropriate. Note that these are slight increases in the mass emission goals in the Monitoring and Reporting Program, not the Maximum Allowable Daily Mass Emission Rates. These changes do not constitute backsliding. With exception to dioxin, which is discussed extensively above, detections of these pollutants were not effluent violations. These detections have not resulted in any discernable degradation to receiving water quality or beneficial uses.

Comment 35: Elizabeth Leite of Willow Creek, California, submitted the following comments on January 20, 2006:

> "My husband and I volunteer as instructors and educators at the Marine Mammal Center housed in the Golden Gate National Seashore. We are retired school teachers and have taken extensive training in order to provide instructional programs to visiting groups and individuals. We have learned a great deal about ocean ecology and understand the necessity of maintaining a healthy oceanic ecosystem for the health of marine mammals, fisheries, and human beings. It is from this frame of reference that I urge you to improve the 9.5 year upgrade timeline now proposed by the Morro Bay/Cayucos sewage treatment plant. This timeline needs to proceed as rapidly as possible and it needs to protect the California sea otter, an endangered species. State and federal clean water laws require this.
>
> "As you probably know, we have a serious tragedy developing on our coast. Agricultural runoff, discharges of stormwater, and the outflow from sewage

treatment plants are affecting the nearshore environment. Our endangered marine mammal, the sea otter, once gaining in numbers, is struggling again on the central coast. Both domoic acid poisoning and taxoplasmosis are affecting this beautiful animal, and its numbers are going down. These catastrophic maladies are increasing as a result of pollution and bacterial contamination from inefficient sewage treatment. Similarly, an epidemic of leptospirosis last year affected California sea lions in record numbers. Sea lions along the north and central coast were infected. The magnitude of the problem suggests that the ocean is in trouble. California Fish and Game has stated this. (Outdoor California, September-October 2003) The evidence is before us.

"The only way to clean up the central coast is to maintain tough pollution standards. Toxins, herbicides, pesticides, fecal bacteria, and many kinds of contaminants threaten human health. They are obviously affecting the health of marine mammals. Marine mammals are sentinels. They are showing us what is wrong. Please insist on a faster, more efficient upgrade for the Morro Bay. Cayucos sewage plant."

Staff Response 35: Please see staff's response to Comment 2 above. There is no evidence that the discharge has adversely impacted the California sea otter.

Comment 36: Kristen Herald of Wooster, Ohio, submitted the following comments on January 17, 2006:

"It is unreasonable to give the Morro Bay/Cayucos sewage treatment plant almost 10 years (10 years!) to update its facilities to no longer be a threat to the California sea otter. The total population of California sea otters statewide is only a mere 2,700, and declining. The otters act as sentinels, showing the health of the ecosystem around them. They are now dying of infections, depleting an already low population in the state of California. The source has been traced to poor water quality due to contaminants from sewage dumped in the bay by the Morro Bay/Cayucos sewage treatment plant. The sewage contains high levels of bacteria, parasites, pathogens, and fecal bacteria as well as many other harmful pollutants that threaten the lives of marine animals such as a variety of shellfish, seals, dolphins, a multitude of fish species and several shorebird and geese populations, not to mention the otter.

"It has been researched and shown that the update of the treatment plant and its facilities could happen as quickly as two and a half years. Not only is it absolutely possible to be carried out and finished in such a short period of time, but it would also cost less!

"Please, do not let this happen. The sooner the updates to the treatment plant are carried out, the better for all involved. The disturbing quality of the water is not only threatening the California sea otter, but other species that inhabit the waters. Allowing the pollution to continue leads to dangers posed not only to marine life,

but also human life and public health, causes degradation of coastal habitats, beach closures, and damage to the local economy.

"I urge you to shorten the period of time given to the sewage treatment plant to upgrade. This has a great effect on helpless animals, and I hope that is taken in to consideration."

Staff Response 36: Please see staff's response to Comment 2 above. There is no evidence that the discharge has adversely impacted the California sea otter.

Comment 37: E. Joy Oakes of Los Angeles, California, submitted the following comments on January 20, 2006:

"Please upgrade the timeline to improve the Morro Bay/Cayucos sewage treatment plant, thus protecting the sea otters, other marine life and Moro Bay's famous estuary. I have cancer with no genetic history of the disease and have to believe that environmental hazards are one of the reasons I am so ill. Please do your part to help our planet, your beautiful city and the people and animals that depend on your concern. Thank you."

Staff Response 37: Please see staff's responses to previous comments.

Comment 38: The **City of Morro Bay** submitted additional written comments on February 2, 2006, regarding the new collection system requirements proposed in the draft permit. The comments are included verbatim here (without footnotes, for readability's sake):

"Thank you for this opportunity to submit additional comments on the proposed discharge permit for the Morro Bay - Cayucos (MBCSD) Wastewater Treatment Plant. These comments are based on a comprehensive review of the wastewater collection system requirements contained in the proposed WDR's, and reflect the input from City of Morro Bay staff only. The Cayucos Sanitary District staff has indicated that they will be submitting comments on the collection system requirements under a separate comment letter.

"City staff requests that the Wastewater Collection System Requirements (Pages 21-23), as well as the Elements of the Wastewater Collection System Management Plan - (Attachment G), be deleted from the proposed WDR for MBCSD. It is City staffs understanding that the State Water Resources Control Board (SWRCB) is scheduled to adopt Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies (State WDR) in March 2006. The SWRCB will not exclude the City and District from the State WDR on the basis that it's operations are covered by specific NPDES Permit provisions. Strict compliance with both regulatory programs will result in duplication of effort and poor use of limited resources. Therefore, we feel that to include these new requirements in the permit is redundant and unnecessary and will place additional unnecessary burdens on City staff and the staff of the Regional Board.

"The State WDRs, in their current form, have been developed with extensive stakeholder input that includes large and small collection agencies, consultants, non-governmental organizations, federal agencies, RWQCB staff and SWRCB staff. It was the opinion of the State Sanitary Sewer Overflow Guidance Committee that it was in the best interests of the public to have uniform rules for all collection systems in the State. The State WDRs will provide consistent guidance for all collection system operators in California. Implementation will be uniform and in accordance with reasonable time schedules. It is the opinion of City staff that the State WDRs will achieve the goal of reducing Sanitary Sewer Overflows (SSO) and improving collection system management that is consistent with the collection system requirements presently included in the proposed WDR for MBCSD.

"Given the numerous differences and issues which face each of the two collection systems, and the City and District's record of consistent and appropriate response to preventing and reacting to sewer spills, it makes more sense to hold each system accountable individually under the State WDR that allows for 42 months for implementation of the program as opposed to the 24 months dictated by the WDR for MBCSD. The WDR for MBCSD will be in jeopardy if either one of the systems does not perform to the Regional Boards expectations. Thus, either agency may be punished while having little or no ability to affect needed changes.

"Including collection system management requirements and absolute SSO prohibitions in the WDR for MBCSD will expose the City and its ratepayers to expensive, third party citizen lawsuits for any instance of noncompliance, regardless of circumstances. This is a real threat that must be considered by the RWQCB. The statewide General WDR regulatory process will provide an equivalent level of water quality protection and enhancement, without the same level of exposure to litigation.

"In the event that the Collection System Requirements cited above are not removed from the proposed WDR for MBCSD, then City staff requests that the completion dates for the tasks outlined in the Wastewater Collection System Management Plan Development Schedule (WCSMP) be modified as follows:

Task	Completion Date
Legal Authority (Part III)	February 10, ~~2007~~ 2008
Measures and Activities (Part IV)	February 10, ~~2007~~ 2008
Overflow Emergency Response Plan (Part VII)	February 10, ~~2007~~ 2008
Design and Performance Provisions (Part V)	June 10, ~~2007~~ 2008

Capacity Evaluation (Part IX)	June 10, ~~2007~~ 2008
Source Control Program (Part VIII)	February 10, ~~2008~~ 2009
Final Wastewater Collection System Management Plan	February 10, ~~2008~~ 2009

"The Management Plan Development Schedule should be modified for the following reasons:

1. The City and District are fully committed to responsible management of their respective collection systems. The City and District currently implement comprehensive, proactive collection system management programs.
2. The excellent compliance record for the two collection systems over the past seven years is contained in the Table cited on page F-20 of the Fact Sheet. The Table demonstrates the City and District's commitment to Best Management Practices and proactive operations and maintenance procedures. Page F-20 of the Fact Sheet provides further evidence of the City and District's commitment to responsible management of their respective collection systems. "*In general, the Dischargers responded to each sewage spill appropriately; the spill was quickly contained, the cause of the spill was eliminated, the affected area was cleaned up and disinfected, proper authorities were notified, creeks and/or beaches were posted if necessary, and maintenance/replacement schedules were adjusted if necessary to prevent future problems.*"
3. The City and District are beginning the complicated task of upgrading the treatment plant per the Conversion Schedule negotiated by the City, District, and RWQCB. This is both an expensive and time-consuming process for City and District staff. Implementing the dates outlined in the existing Management Plan Development Schedule will divert staff time from critical tasks and procedures required in the upgrade process.
4. It should be noted that there are two distinct collection systems involved in this permit process. The point at which the two collection systems are starting from in terms of existing programs and practices are quite different based on the operators and managers first hand knowledge of their systems and the individual needs of the respective systems. Therefore, to establish arbitrary completion dates for Management Plan tasks on a "one size fits all" basis is unrealistic and does not provide sufficient flexibility for the City and District to design and implement a Sewer System Management Plan appropriate to their particular circumstances.
5. After careful review and evaluation, City staff does not believe that it has been allowed adequate time to perform the numerous and varied tasks outlined in Parts III, IV, VII, V, in the one year time frame mandated in the MPDS. The detailed tasks outlined in the WCSMP will require the City to: hire at least one additional full time position in the Collections

Division; divert staff time from critical tasks; contract out critical tasks to qualified consultants for implementation in accordance with standard engineering requirements; implement rate fee analysis and increases, and adhere to statutory requirements for public hearing, notice and posting requirements. The tasks cited will be impossible to accomplish in a professional and adequate method in the limited time provided.

6. There is no discussion of the RWQCB review and approval process. Conforming our current collection system management process and its structural elements to satisfy the Attachment G requirements will require significant effort. The City would appreciate some assurance that there will be meaningful review and approval of the WCSMP by the RWQCB in a timely manner.

Additional Comments:
The City has limited ability to control the operation and maintenance activates of some of the satellite collection systems, as they are owned and operated by State agencies. The City has and will continue to take necessary actions to promote Best Management Practices and work with all interested parties to limit SSOs and to protect water quality, however it is unreasonable to hold the City responsible for system failures that occur under the jurisdiction of other agencies.

Page E-20, D. Sewage Spill Reporting, 4:
The requirement to collect "*upstream, at, and downstream*" samples subsequent to a SSO is ambiguous for several reasons. In the opinion of City staff, upstream monitoring should only be required when the discharge is to a creek, stream, or similar open, accessible channel with continuous background flow. If the SSO is to a non-flowing waterbody, such as an estuary, pond or the Pacific Ocean, "*upstream*" sampling is not possible. In the case of a discharge to a storm drain, upstream and downstream sampling may be difficult or impossible. Furthermore, entering a storm drain for the purpose of sample collection could expose City staff to unsafe conditions, particularly during rainfall events. It is recommended that this paragraph be modified to clarify SSO monitoring requirements and to fully define "upstream" and "downstream" sampling locations and protocols.

Staff Response 38: The proposed collection system requirements are consistent with those approved in several previously issued NPDES permits and Waste Discharge Requirements. The proposed requirements are appropriate for the Dischargers. The Draft Fact Sheet (December 5, 2005) for the proposed statewide Waste Discharge Requirements states, "In order to provide a consistent and effective SSO prevention program, as well as to develop reasonable expectations for collection system management, these General [statewide] WDRs should be the primary regulatory mechanism to regulate public collection systems." Staff would prefer to rely on the pending statewide requirements, but there is still considerable uncertainty as to when those requirements will be approved by State Board. At its February 2006, State Board delayed adoption of the requirements. Staff therefore recommends the proposed collection system requirements be retained. However, the requirements should terminate when the Discharger enrolls under the statewide requirements,

therefore staff recommends addition of the following language to the beginning of Permit Section C.3:

> "The requirements of this section, including Attachment G, shall terminate when the Discharger obtains coverage under statewide General Waste Discharge Requirements for Sewage Collection System Agencies."

The Discharger's requested changes to the Wastewater Collection System Management Plan development schedule are consistent with the proposed statewide requirements. A revised schedule would allow time for adoption of the statewide General WDRs, and for the Dischargers to enroll under the General WDRs, which should address the Discharger's concerns about duplicating effort. Staff recommends acceptance of these changes.

Staff understands that the Discharger has limited ability to control satellite collection systems, and agrees it is unreasonable to hold the City responsible for system failures that occur under the jurisdiction of other agencies.

Staff agrees the draft requirement to collect "upstream, at, and downstream" samples subsequent to a sewage spill is ambiguous. Staff agrees that upstream monitoring should only be required when the discharge is to a creek, stream, or similar open, accessible channel with continuous background flow, and has made this change to the proposed Permit.

Comment 39: The **Cayucos Sanitary District** submitted written comments on February 2, 2006, regarding the new collection system requirements in the proposed permit. The comments were submitted separately from the City of Morro Bay because Cayucos Sanitary District operates a separate and distinct wastewater collection system. The comments are included verbatim here:

> **"**The Cayucos Sanitary District (District) acknowledges that the Elements of the Wastewater Collection System Management Plan - (Attachment G) (WCSMP) and the Wastewater Collection System Requirements (Pages 21-23) included in the proposed WDR are consistent with other NPDES permits recently adopted in the Central Coast RWQCB Region. The District is also aware that these same provisions have been the subject of much comment, and have been even appealed to the SWRCB. The District hereby restates the comments made by other Agencies, that prescriptive collection system management requirements should not be included as wastewater treatment/disposal NPDES Permit provisions. The City of Morro Bay (City) and the District are entirely separate and distinct public agencies that operate and maintain completely separate and distinct sewer collection systems; and therefore WDR for the two collection systems should likewise be separate, which will be more equitable for the District and City and will likely be more efficient for purposes of regulatory monitoring and enforcement. The District's recommendation is that the Wastewater Collection System Requirements section, as well as Attachment G, and Section E-20: Part D, #'s 4 and 6 be removed from the proposed WDR.

In the event that the Collection System Requirements are not removed from the proposed WDR, then the District requests that the completion dates for the tasks outlined in the Management Plan Development Schedule be modified as follows:

Task	Completion Date
Legal Authority (Part III)	24 months after adoption of the NPDES Permit
Measures and Activities (Part IV)	24 months after adoption of the NPDES Permit
Overflow Emergency Response Plan (Part VII)	15 months after adoption of the NPDES Permit
Design and Performance Provisions (Part V)	36 months after adoption of the NPDES Permit
Capacity Evaluation (Part IX)	36 months after adoption of the NPDES Permit
Source Control Program (Part VIII)	24 months after adoption of the NPDES Permit
Final Wastewater Collection System Management Plan	42 months after adoption of the NPDES Permit

The Management Plan Development Schedule should be modified for the following reasons:

1. The District recommends that the Task Descriptions and Completion Dates comport with the Tasks shown on Page 15 (of 19) of Draft Order No. 2006-? for the Statewide General WDR for Sewage Collection Agencies.
2. The District is fully committed to responsible management of its collection system. The District currently implements comprehensive, proactive collection system management programs.
3. The excellent compliance record for the District's collection system over the past seven years is contained in the Table cited on page F-20 of the Permit Fact Sheet. The Table demonstrates the District's commitment to Best Management Practices and proactive operations and maintenance.

4. The point from which the City and District collection systems are starting are very different in terms of current condition and the status of existing programs and practices from which to address the requirements of the Management Plan. To establish arbitrary completion dates for Management Plan tasks on a "one size fits all" basis is unrealistic and

doesn't address the realities the two agencies face in terms of their ability to comply with the Management Plan Development Schedule.

5. Given the numerous differences and issues which face each of the two collection systems, and the City's and District's records of consistent and appropriate response to preventing and reacting to sewer spills, it makes more sense to hold each system accountable individually under the proposed Draft Statewide WDR Sewer System Management Plan Time Schedule that allows for 42 months as opposed to the proposed 24 months dictated by this permit.
6. The City and District are commencing the complicated task of upgrading their jointly-owned wastewater treatment plant, in accordance with a Conversion Schedule negotiated with the RWQCB staff, pending adoption by the RWQCB of a Settlement Agreement. This is an expensive and time consuming process for a very small District staff. Implementing the activities and tasks by the corresponding completion dates outlined in the existing Management Plan Development Schedule (MPDS) will divert staff time from critical tasks and procedures attendant to the upgrade process.
7. After careful review and evaluation, the District contends that as provided for in the Permit, there will not be adequate time to perform the numerous and varied tasks outlined within the time frame mandated in the MPDS. Depending on the nature of the tasks outlined in the WCSMP, the District will be required to divert staff time from critical collection system operations and maintenance tasks in order to recruit, hire, and train qualified staff. Additionally, the District envisions there will need to be outsourcing of critical tasks areas where professional consultants' services are required such as when standard engineering requirements are involved, and to conduct rate fee analysis and studies, and to adhere to statutory requirements for public hearing, notice and posting requirements. The tasks cited will be virtually impossible to accomplish in a professional and adequate manner within the limited time provided.

While the District understands and supports the concept of a regulatory framework for collection systems that is intended to reduce SSOs and protect water quality, we do not believe that prescriptive collection system management requirements should be included as NPDES Permit provisions. Again, we recommend that this entire section, as well as Attachment G, be removed from the Tentative Order. The basis for this recommendation is outlined below:

1. The SWRCB is in the final stage of adoption of Statewide General Waste Discharge Requirements for Sewage Collection System Agencies (General WDRs).

2. The SWRCB estimates the General WDRs will be adopted in March of 2006. This timing will basically coincide with adoption of MBCSD's final NPDES Permit.

3. The General WDRs, in their current form, have been developed with extensive stakeholder input from large and small collection agencies, consultants, non-governmental organizations, federal agencies, RWQCB staff and SWRCB staff. In sharp contrast, the Wastewater Collection System Requirements set forth in the Tentative Order were developed without any input from the regulated community.

4. Including collection system management requirements and absolute SSO prohibitions in the Tentative Order will expose the District (and City) and its ratepayers to expensive, third party citizen lawsuits for any instance of noncompliance, regardless of circumstances. This is a real threat that must be considered by the RWQCB. The statewide General WDR regulatory process will provide an equivalent level of water quality protection and enhancement, without the same level of exposure to litigation.

5. The General WDRs will provide a level playing field for all collection system operators in California. Implementation will be uniform and in accordance with reasonable time schedules. Again, implementation under the statewide General WDR will allow the District to implement the required tasks in accordance with standard engineering requirements.

6. A key element of the statewide General WDR program is a standardized online (web-based) reporting system. This application will streamline and dramatically reduce costs associated with SSO reporting at all levels. If the collection system provisions of the Tentative Order are retained, the District will be subject to duplicative, expensive, and burdensome reporting requirements. The SWRCB will not exclude the District from the General WDR on the basis that its operations are covered by specific NPDES Permit provisions. Strict compliance with both regulatory programs will result in duplication of effort and poor use of already strained District resources.

Attachment G . – Elements of the Wastewater Collection System Management Plan

The wastewater collection system provisions of the Tentative Order require the City and District to prepare a Wastewater Collection System Management Plan in accordance with Attachment G. The City and District's comments on Attachment G are provided below:

1. The District is in the process of implementing required Wastewater Collection System Management Plan (WCSMP) elements. Redevelopment, repackaging, and related compilation efforts to satisfy the Attachment G requirements will require substantial outlay of resources and funding that could be better used to maintain and/or improve the District's collection system.

2. The District also questions the annual update requirements for many of the plan elements. For example, a very limited number of new connections are made within the District's service area each year. Annual updates of a Capacity Assurance Plan are not appropriate and would be of very little practical value to the District, the public or the RWQCB. This and similar efforts would divert staff time from critical maintenance, rehabilitation and upgrade activities.

3. There is no discussion of the RWQCB review and approval process. Conforming our current collection system management process and its structural elements to satisfy the Attachment G requirements will require significant expenditures of limited District resources. If not removed the District would appreciate some assurance that there will be meaningful review and approval of the WCSMP by the RWQCB in a timely manner.

Page E-20, D. Sewage Spill Reporting, 4:
The requirement to collect "upstream, at, and downstream" samples subsequent to a SSO is ambiguous for several reasons. In the opinion of the District, upstream monitoring should only be required when the discharge is to a creek, stream, or similar open, accessible channel with continuous background flow. If the SSO is to a non-flowing water body, such as an estuary, pond or the Pacific Ocean, "upstream" sampling is not possible. In the case of a discharge to a storm drain, upstream and downstream sampling may be difficult or impossible. Furthermore, entering a storm drain for the purpose of sample collection could expose District staff to unsafe conditions, particularly during rainfall events. It is recommended that this paragraph be modified to clarify SSO monitoring requirements and to fully define "upstream" and "downstream" sampling locations and protocols."

Staff Response 39: Please see staff's response to the previous comments from the City of Morro Bay. The Wastewater Collection System Management Plan development schedule proposed here by Cayucos Sanitary District is reasonable for both entities; therefore staff recommends acceptance of the schedule proposed by Cayucos Sanitary District.

Comment 40: The **Natural Resources Defense Council (NRDC)** submitted a 69-page comment letter on February 3, 2006, entitled *Time is of the Essence: The Legal and Technical Reasons Why EPA and the Regional Board Must Deny the 301(h) Waiver and Require Upgrade of the Morro Bay-Cayucos Sewage Plant "As Fast As Possible.* The comments are too lengthy to include verbatim here, so only summary portion of the document is included verbatim here. The entire comment letter is included as an attachment to the Staff Report.

"In the past decade, waivers from basic federal treatment requirements under section 301(h) of the Clean Water Act have become increasingly rare in the United States, and with good reason. The discharge of partially treated waste degrades receiving waters, and poses serious risks to public health and the marine ecosystem. For that reason, sewage treatment plants are not entitled to maintain Clean Water Act section 301(h) waivers from secondary treatment standards

merely for their administrative convenience. But at root, if EPA and the Regional Water Quality Control Board issue another waiver to the Morro Bay-Cayucos Sewage Treatment Plant (the "Sewage Plant" or "Plant"), bureaucratic convenience will be the true basis for such an action. Convenience for a discharger of partially treated sewage will come at the cost of the undeniable water quality improvements that secondary treatment provides, improvements that will both diminish risks to the ecosystem and marine life, including the threatened California sea otter, and to public health. Because an upgrade—including one that would include tertiary treatment—can be accomplished feasibly twice as fast as proposed, and because the Plant is not entitled to a waiver from secondary standards, the only appropriate and lawful action is to deny the waiver and order an upgrade "as fast as possible," the operative standard established under law.

There are numerous reasons why this is true.

First, a balanced, indigenous population of marine life does not exist in and around the zone of initial dilution. The presence of a healthy ecosystem is an indispensable prerequisite for issuance of a waiver—even if a waiver applicant proves it has no role in causing identified problems. But, here, the agencies' rote analysis of the evidence ignores a disease epicenter affecting a "sentinel" species—the California sea otter—nearly on top of the Sewage Plant's discharge pipe. This disease epicenter is the proverbial "elephant in the room" that the agencies inexplicably fail to properly consider in concluding that the Plant has met its heavy burden of proof here. EPA's analysis, and the accompanying assessment by the Regional Board, neither overcomes the mountain of data showing that pathogens have severely degraded the relevant ocean environment nor even persuasively rules out the role of the Plant in causing or contributing to the obvious problem. In fact, the one study relied on by the agencies simply does not rule out the possibility that pathogens—shielded from destruction by the relative inefficiency of the Plant's operation—are causing or contributing to otter morbidity and mortality.

Second, the Sewage Plant has not met its burden to show that it can comply with its existing permit and meet applicable water quality standards consistently. Based on a selective analysis, the Plant asks EPA and the Regional Board to ignore the accumulation of toxic metals around its discharge pipe, acute toxicity caused by chlorine, and the presence of dioxin in plant effluent, as well as other unambiguous violations of applicable standards. Dr. Bruce Bell, one of the leading experts on the operation and upgrade of sewage treatment facilities in the United States, exposes and debunks any contention that the Plant can satisfy section 301(h) requirements in this respect.

Third, recent water quality data, combined with an absence of evidence that the Sewage Plant has employed indispensable and standard tracking and monitoring protocols, preclude the Plant from meeting its burden to show that the discharge supports recreational uses in Estero and Morro Bays. By contrast, a leading expert on pathogenic contamination of recreational ocean waters, Dr. Mark Gold,

demonstrates that the Plant's application creates more questions than it answers—while failing to account for recent data that undercuts the fundamental conclusion that the Plant is not degrading beach water quality.

Fourth, and more generally, the Sewage Plant's failure to present a "complete" application with current data and information precludes issuance of another waiver. EPA and the Regional Board have before them an application submitted in 2003 and which, in many instances, relies on even older information. As a result, EPA's and the Regional Board's analyses, findings, and determinations are based on incomplete and stale information. Moreover, the Plant and the agencies have not complied with various consultation requirements that are legally required and substantively germane to the issues. By contrast, throughout our analysis, NRDC identifies and submits current and material information that has been omitted in the record.

Fifth, contrary to the implicit assumption of the agencies, the Plant is highly likely to process additional volumes of effluent in the next five years, a fact which will exacerbate each of the substantive problems that currently plague its operation—including the rate of effective disinfection and water quality standards compliance. The agencies have improperly failed to consider these issues and improperly have concluded that the anti-degradation requirements of the Clean Water Act are met in this instance. This is a glaring failure in light of the fact that waters of national significance are nearby, which deserve the highest level of protection from degradation. It is also a glaring failure in light of the Plant's record of collection system and other spills, which show that even now untreated effluent is reaching local waters due to the outdated nature of the Plant.

Sixth, the upgrade proposed by the Sewage Plant and the Regional Board to improve Plant performance will occur as much as five years later than it feasibly can be accomplished. By contrast, state law requires that remedial actions like that proposed here take place "as fast as possible." This clear mandate has been ignored so far, paving the way for a 9.5 year upgrade schedule that will assure that water quality degradation continues to occur for nearly a full decade.

Seventh, the Draft Permit the agencies propose in the meantime not only waives secondary treatment standards, it also fails to include effluent limits and monitoring for pollutants which have a reasonable potential to cause or contribute to violations of water quality standards. Chief among them is the particular pathogen scientifically linked to otter mortality and morbidity. Given the stakes for an iconic threatened species, one that scientists call a "sentinel" for coastal water quality conditions generally, this omission is indefensible.

Finally, because of all of these issues and additional ones contained in the draft settlement agreement, the settlement document itself fails to meet the standard courts use to determine whether the government is acting consistent with its discretion and in the best interest of the public. While there can be no doubt the upgrade in general furthers that interest, the document fails to require the work on

an expedited basis, as is required. Moreover, it otherwise creates the conditions for much longer delays beyond 9.5 years by providing insignificant fines—some smaller than a parking ticket—for many violations of its terms as well as broad, unusual interpretations of standard terms. Collectively, these factors indicate that the agreement may not truly reflect "an arm's length negotiation," which is what courts look for in assessing agreements like the one at issue here.

NRDC wishes it were in a position to fully support the Draft Permit and the upgrade agreement. Since 2003, NRDC has been working to forge a collaborative and cooperative resolution to one of the three remaining 301(h) waivers in California, and the only one so closely associated with a known disease epicenter. Towards this end, NRDC has met with local residents, conservation groups, Regional Board staff, Plant staff, and Joint Powers Agency ("JPA") Board members. This process, which was greatly aided by the perspectives of the Regional Board, and many of its staff, resulted in a JPA Board commitment to upgrade the Plant. However, while positive steps have been taken, given the risks and the evidence, additional commitments are both appropriate and necessary. Section 301(h) waivers are not intended to provide cover for bureaucratic wrangling, nor may they be issued to make meeting bedrock Clean Water Act rules convenient. Since this is the evident function of the proposal to grant the waiver here, EPA and the Regional Board should deny the waiver and require that the Plant upgrade so as to improve water quality "as fast as possible."

Staff Response 40: NRDC's conclusions are largely based on a series of speculative and out-of-context statements regarding sea otter health in the vicinity of the discharge, and are not supported by actual data. As discussed previously, the Discharger has monitored its discharge for the pathogen that is contributing to sea otter mortality in Estero Bay and found none. Actual data are entitled to far more evidentiary weight than unproven hypotheses.

Staff has previously considered every argument that NRDC has presented and found that none of the arguments merit denial of the 301(h)-Modified NPDES permit. U.S. EPA's Tentative Decision Document and staff's Evaluation of Compliance with Permit Requirements, which are based on actual monitoring data from the Discharger's approved monitoring program, both support reissuance of the proposed NPDES permit.

Reissuance of the 301(h)-Modified NPDES permit will effectuate a Settlement Agreement that enforces an upgrade of the Discharger's wastewater treatment plant and will improve discharge quality. Most agree that this is good progress. But NRDC asks for the upgrade timeline to be less than five years, such that the Dischargers may forgo their 301(h)-Modified NPDES permit now, rather than in five years. For several reasons explained previously, upgrading the facility within five years is not possible or necessary, so the Dischargers must seek reissuance of this 301(h)-Modified NPDES permit.

Denial of the proposed Permit would likely result in appeals or litigation that would delay any settlement agreement indefinitely, which may cause the opposite of the intended effect, that is, to further delay the upgrade. Discharger representatives have stated that they will challenge any denial of the 301(h) modification. In addition to litigation delays, the proposed permit would have to be rewritten and a new hearing would have to be noticed, so that some delay would occur even before the Water Board could issue any renewed permit. Whether the 301(h)-modification is eliminated now or in five years (as the settlement agreement provides), discharge quality will not improve until the treatment plant upgrade is complete. That is, the form of permit does not improve the environment, and there is no difference between a 301(h)-modified permit and a full secondary permit with a compliance schedule. The only difference is the length of the schedule. The final compliance date in the schedule is June 23, 2015, i.e., just over nine years. The Dischargers are currently a year ahead of schedule. Staff does not believe a three- to four-year acceleration of the schedule will produce lasting water quality benefits, even assuming that denial of the waiver would accelerate the schedule that much. That being said, in order to issue the proposed Permit, both EPA and the Water Board must find that the Discharger satisfies all elements of Section 301(h).

Following are several specific responses to NRDC's comments. Our overarching recommendation is that the Regional Board and USEPA base its decisions more on actual monitoring data than the speculative and dramatic arguments presented by NRDC. Staff recommends reissuance of the proposed NPDES permit. However, following this response is a discussion of the options available to the Water Board.

- NRDC states "Based on a selective analysis, the Plant asks EPA and the Regional Board to ignore the accumulation of toxic metals around its discharge pipe, acute toxicity caused by chlorine, and the presence of dioxin in plant effluent, as well as other unambiguous violations of applicable standards." Staff did not ignore these matters when formulating its recommendation. The Discharger's dioxin and chlorine effluent violations are discussed extensively in this Fact Sheet. The reference to "accumulation of toxic metals around its discharge pipe" must be qualified by the fact that chromium concentrations in seafloor sediments are increasing throughout the Central Coast, likely due to runoff from abandoned chromite mines throughout the Region, and effluent monitoring indicates that the Discharge is not contributing to the problem.

- On Page 2, NRDC suggests that reissuance of the proposed 301(h)-Modified NPDES permit be denied because "of the Plant's record of collection system and other spills, which show that even now untreated effluent is reaching local waters due to the nature of the Plant." First, when compared with other areas in the Central Coast Region and State, the Dischargers have an exemplary record of preventing sewage spills. Secondly, sewage spills originate from the collection system and not the treatment plant, and have nothing to do with the issue at hand, which is whether or not to reissue a modification of secondary treatment standards. Nevertheless, we should point out that the proposed Permit includes

several provisions to improve operation and maintenance of the Discharger's collection system.

- On Page 2, NRDC argues that State law requires that "remedial actions like that proposed here take place "as fast as possible".

  - Neither the Clean Water Act nor the Porter-Cologne Water Quality Control Act require a five-year upgrade, assuming the plant currently satisfies the 301(h) requirements. The five-year time schedule requirement only applies to upgrades necessary to cure existing permit violations. The mandatory minimum penalty provisions of the Water Code include an exception where the discharger is in compliance with a time schedule that is as rapid as possible, but not longer than five years. (Ca. Wat. Code §13385(j)(3).) If the Board and EPA issue another 301(h)-waiver permit, the Discharger will be in compliance with its permit limits. Since the Discharger would not be in violation of its permit, no cease and desist order under Section 13385 would be necessary to avoid MMPs. On the other hand, if the Board were to find that the plant does not meet the 301(h) requirements, the permit would have to include full secondary treatment limits. In order to shield the plant from MMPs, the Board could issue a time schedule for the upgrade, during which MMPs for violating the secondary treatment requirements would not apply. After five years (or any faster schedule the Board determined to be possible), the Board could no longer shield the plant from MMPs.

  - The NPDES compliance schedule provisions do not apply either. (40 CFR §122.47.) The type of compliance schedule described in the NPDES regulations is in the permit itself, and provides for a delayed effective date of permit limits. This type of compliance schedule cannot extend compliance deadlines beyond "the applicable statutory deadline under the CWA." The applicable statutory deadline for secondary treatment requirements has long passed, except for facilities subject to a 301(h) modification. EPA staff has advised Water Board counsel that EPA will not approve NPDES permits that include compliance schedules for secondary treatment requirements. Even if the Board amended the Basin Plan to allow compliance schedules for new water quality standards, that provision would not apply in this case. There is nothing to suggest that the compliance schedule provision in the NPDES regulations requires *every* plant with a 301(h) modification to upgrade as quickly as possible. That interpretation would eliminate the 301(h) exception to secondary treatment requirements.

  - Even where the NPDES compliance schedule provisions apply, both EPA and the State Water Board allow time schedules in excess of the five-year permit term, where appropriate. (*See, e.g., In the Matter of the Review on its Own Motion of Waste Discharge Requirements for the Avon Refinery, et al.* [Tosco] (State Water Board Order No. 2001-0006); Enclosed Bays and Estuaries/Inland Surface Waters Plan §2.1 (compliance schedules may extend up to ten years beyond the Plan's adoption).)

- Other evidence might support a faster time schedule. For example, if the record supports NRDC's argument that the aging treatment plant will become unable even to meet the current effluent limits, this would support requiring a faster upgrade. This is indistinguishable from other failing treatment plants in the Central Coast Region, but it is not related to Section 301(h).

- On Page 2, NRDC states that the Draft permit "fails to include effluent limits and monitoring for pollutants which have a reasonable potential to cause or contribute to violations of water quality standards. Chief among them is the particular pathogen scientifically linked to otter mortality and morbidity." This statement is false. The proposed Permit complies with Clean Water Act requirements (40 CFR §122.44) to include effluent limits for all pollutants with reasonable potential to cause or contribute to water quality standards. The Discharger performed monitoring of its discharge for the presence T. gondii (the only discharger in the State to complete such monitoring), and found none. These monitoring data are the best information available on T. gondii and this discharge. Even if the discharge did have reasonable potential to contain T. gondii, there is no established water quality standard for this specific pathogen. The proposed permit is consistent with the California Ocean Plan in that it already contains effluent limitations for Total Coliform, which is the widely accepted surrogate for pathogens such as T. gondii. Standards are not required where the record contains no evidence from which appropriate standards could be derived, nor does the Ocean Plan require any such standards. (*Petition of Friends of the Sea Otter and Department of Fish and Game,* Order No. WQ 90-1 at 21-22.)

- On Page 12, in summarizing its evidence, NRDC states "Discharge of primary treated sewage is the second most likely factor accounting for the Morro Bay T. gondii hot spot." This statement is taken from a 2002 study that pre-dated the 2003 discharge monitoring study, which demonstrated that the subject discharge does not contain T. gondii. The actual monitoring data relied on by US EPA and Water Board staff clearly outweighs the reports NRDC cites, which pre-date the actual site-specific data. Later in its comments, NRDC argues (incorrectly) that staff bases its recommendation on stale and incomplete information. However, that is what NRDC is doing here.

- On Page 18, NRDC asserts that the proposed settlement agreement should be rejected because it was not "the product of good-faith, arms-length negotiations," or that negotiations were not full of "adversarial vigor." Nothing subjects this type of settlement to the standards governing court approval of consent decrees.[1] The

[1] Even when such standards apply, a court must review the settlement in light of the public policy favoring settlement. (*U.S. v. Chevron U.S.A., Inc.*, 380 F. Supp. 2d 1104, 1111 (N.D. Cal. 2005), citing *United States v. Comunidades Unidas Contra La Contaminacion,* 204 F.3d 275, 280 (1st Cir.2000).) Although the court should not rubber stamp government settlements, its "deference is particularly strong where the decree has been negotiated by the Department of Justice on behalf of an agency like the EPA which is an expert in its field. *United States v. Akzo Coatings of Am., Inc.,* 949 F.2d 1409, 1436 (6th Cir.1991)." (*U.S. v. Chevron* at 1111.) The costs and benefits of the settlement are important. (*Id.* at 1113.) Although the best-case scenario is used as a benchmark to evaluate a settlement, "… it is to be expected that the actual relief secured under the Consent Decree will fall short of the best-case scenario. Such a result may be reasonable result of the compromise inherent

more important question is whether the settlement is consistent with applicable law and adequately protective of the environment. Those issues are addressed above. The Dischargers had refused to upgrade just three years ago, but now, after nearly two years of negotiation with staff and pressure from NRDC and the public, the Dischargers have agreed to a multi-million dollar upgrade. The fact that the Discharger originally proposed a 15-year upgrade timeline, but then ultimately agreed to a 9.5 year timeline is evidence enough that the agreement is fair. Staff communicated and met with NRDC representatives numerous times during and after negotiating the agreement. NRDC representatives attended public and private meetings with the Dischargers. The agreement was circulated for public comment for much longer than the 30 days required by NPDES regulations, assuming these regulations even apply to a settlement related to a permitting decision. (40 CFR 123.27(d)(2)(iii).) We received no comments other than NRDC's February 3 comments. The Executive Officer did not sign the agreement before the close of the comment period and thorough review of all comments.

- NRDC criticizes the Settlement Agreement for other reasons:
  - NRDC correctly points out that the administrative civil liability for missing time schedule deadlines are very low. However, this is justified because the Dischargers have agreed not to apply for a second 301(h) waiver. The administrative civil liability in the settlement agreement applies only to violations of the settlement agreement, and not to other permit violations. (Settlement Agreement, §E.4.) If the Dischargers fail to complete the upgrade within five years of issuance of the second permit, they will be subject to Section 13385 administrative civil liability for violating the effluent limits in the permit.[2]
  - NRDC misconstrues the importance of the "clear and convincing evidence" language in the agreement. According to the agreement, the Dischargers waive their right to challenge any interim BOD^5, TSS or pH requirements, or a faster timeline, that are (i) the same as in the current permit, in the case of the effluent limits; or (ii) more stringent and based on clear and convincing evidence. (Settlement Agreement, §§B.2.b, see also, B.2.a.3 and B.2.b.) If the Water Board imposes more stringent requirements that are based on something less than clear and convincing evidence, the only consequence is that the agreement to which NRDC so strenuously objects has no further effect. The Dischargers can challenge the more stringent requirements or shorter time schedule, and the obligation to complete the upgrade in 9-1/2 years (or ever, if the permit is not upheld) is void. The increased evidentiary standard recognizes the uncertainty that the Dischargers face regarding what the second permit will require, since (as NRDC points out) the Board retains all discretion regarding the terms of the second permit.
  - Staff recognized that a settlement agreement is more difficult to enforce than a consent decree. Breach of the settlement agreement requires the Board to bring a breach of contract action, in which it can request the court to order the

in any settlement." (*Id.* at 1114.) It is reasonable to include a compliance schedule that takes into account how long it would have taken to litigate the matter. (*Id.* at 1118.)

[2] Interim effluent limits will be set forth in a time schedule or cease and desist order, or, if the Basin Plan and EPA regulations change, in the permit itself.

Dischargers to comply with the agreement. Alternatively, the Board can pursue administrative civil liability. Although the amounts are small during the upgrade process, the goal of any schedule is to ensure the discharger meets the final compliance date. If the Dischargers do not, potential adminstrative civil liabilities become significant unless the agreement is amended,[3] and failure to adhere to a schedule that allowed latitude to the Dischargers would be a factor in setting penalty amounts. That provides a sufficient deterrent effect. In addition, even small administrative civil liabilities signal the community that the upgrade is off-track. Water Board staff, the Dischargers and NRDC have all stated that community support for the upgrade is very strong. The Dischargers will have to account to their constituents for failure to adhere to the schedule.

- Staff, the Dischargers and EPA considered a consent decree in lieu of the agreement that was negotiated. EPA indicated that it cannot participate in a consent decree until permit violations are actually occurring, *i.e.,* if the Dischargers give up the waiver and begin incurring violations of the secondary treatment standards. This would preclude a schedule longer than five years, since the consent decree could not shield the Dischargers from mandatory minimum penalties after that. (Water Code §13385(j)(3).) EPA's internal review requirements would cause significant delay in negotiating a consent decree. The California Attorney General would also have to become involved, and a court approval process would be necessary. In addition, a consent decree is not possible absent the Dischargers' agreement, and they refused to consider this option.

- In Part 3, beginning on Page 20, NRDC argues that the Discharger's application and therefore EPA and Regional Board staff's evaluations are based on stale and incomplete information. Staff's recommendation is not based solely on the Discharger's 2003 permit application, but on the most relevant information available—all monitoring data submitted since 2003. The subject discharge remains essentially unchanged since 2003. Staff also considered all of the most recent sea otter studies when formulating its recommendation to reissue the proposed permit. NRDC bases its conclusions on these same studies while at the same time arguing that such information is stale and incomplete. Staff was prepared to bring the proposed permit to the Regional Board in June 2004, but chose to delay to allow for negotiation of the proposed settlement agreement, partly at the insistence of NRDC. So on the one hand, NRDC argues that the settlement agreement was not adequately negotiated, but on the other hand argues that allowance of time for adequate negotiations is not permissible. These arguments are not valid.

- On page 22, NRDC points out that U.S. Fish & Wildlife Service (USFWS) has not provided an evaluation of the discharge since 1998. The Discharger fulfilled its obligation and properly pursued such an evaluation in 2003. USFWS has not yet provided an evaluation due to its other priorities. The Discharger has again requested such an evaluation from USFWS, and staff understands that USFWS

[3] Of course, even absent an amendment, whether to assess any administrative civil liability beyond MMPs is within the Board's discretion.

may provide it before the March 24 hearing. Regardless of whether USFWS provides its evaluation prior to the hearing of the proposed permit, the absence of a USFWS evaluation does not merit denial of the proposed permit absent evidence of any *substantive* violations, that is, evidence that the discharge may affect sea otters, tidewater goby, steelhead trout, or other listed species in violation of the Endangered Species Act; or that there is a take under the Marine Mammals Protection Act. The outfall area, and the area it impacts, does not include habitat for steelhead or goby. Both species require a freshwater inlet. The closest is Morro Creek, 0.9 mile from the outfall. In addition, the mouth Morro Creek is too dynamic and does not provide the type of protected cove or inlet that goby prefer. The area surrounding the outfall is primarily sandy bottom. Studies of benthic communities are the most appropriate measure of whether any impact is occurring. The USFWS letter can also be obtained after the Board acts, as is the case with Coastal Commission certification of consistency with the Coastal Zone Management Act.

- Throughout Part 3B, beginning on page 22, NRDC suggests that it is the Discharger's burden to prove that the population of every species in Estero Bay is healthy. On page 26, NRDC states that the Discharger should have considered steelhead trout and tidewater goby, species whose critical habitats are fresh or estuarine waters, which clearly could not be affected by the discharge. Any toxic pollutants present in the discharge are most likely bound up in sediments that sink to the seafloor in the vicinity of discharge. Benthic organisms (i.e. those living on or in the seafloor) are the most sensitive receptors to these pollutants. Demersal fish and other higher order organisms move in and out of the discharge area freely and are not practical to monitor for a discharge of this size. This is why benthic monitoring has always been required and not demersal fish monitoring in this case. As discussed extensively previously in this report, twenty years of benthic monitoring data indicate that populations of benthic organisms in the vicinity of the discharge are balanced and healthy.

  This Facility is factually different from the Oxnard 301(h) application discussed in *Rimmon C. Fay,* Order No. WQ 86-17 (regarding the City of Oxnard's treatment plant), for these reasons. In the Oxnard case, EPA concluded that the discharge was likely to have an adverse impact on plankton, and TetraTech concluded it was impossible to tell. EPA concluded that there was insufficient data to determine whether the discharge was adversely affecting demersal fishes and epibenthic macroinvertibrates, and that available data on bioaccumulation of pesticides and toxics was inconclusive. In the TDD for this Facility, on the other hand, EPA concluded that adequate evidence of a BIP is present. It should also be noted that the Oxnard facility, which had a design capacity of 25 mgd, did eventually obtain a 301(h)-modified permit.

- On page 35, NRDC challenges the validity of the Discharger's efforts with UC Davis scientists to monitor its discharge for T. gondii. Staff recognizes that all sampling methodologies have limitations; however, the method used by the Discharger is the best available.

- On page 38, NRDC argues that the reissuance of the 301(h)-modified permit is prohibited under 40 CFR 125.59(b)(4) because the discharge of pollutants "enters into saline estuarine waters." This section of law prohibits issuance of 301(h)-modified permits for direct discharges to saline estuarine waters, not this discharge to the open ocean. NRDC bases this argument on a 1986 dye study, which suggested that the discharge may enter the mouth of Morro Bay under certain infrequent oceanographic conditions. NRDC omits that this study found that the discharge was diluted from 16,700:1 to 91,000:1 (seawater:effluent) before entering the mouth of the Bay, and that was during flood tide conditions when the mouth of the Bay was hardly estuarine. This extremely high level of dilution before reaching the mouth of the Bay is verified by the Discharger's current offshore monitoring program, which is superior to the 1986 dye study in tracking the fate and transport of the discharge plume, and which indicates that the discharge is diluted by hundreds of parts of seawater within several meters of the outfall, and that the discharge plume is imperceptible at the mouth of Morro Bay. The stated prohibition clearly does not apply in this case.

- On page 40, NRDC disagrees with language common to all ocean discharge permits in California. The "shall not cause" language in the Receiving Water Limitations section of the proposed permit is taken directly from the California Ocean Plan, and complies with Clean Water Act Section 122.44. The proposed permit contains effluent limitations for all pollutants with reasonable potential to cause or contribute to a violation of a State water quality standard, including all priority pollutants with Water Quality Objectives. Thus, the "have a reasonable potential to cause, or contribute to" language that NRDC believes is necessary is already inherent in the effluent limitations, and is not necessary in the Receiving Water Limitations section of the permit.

- On page 41, NRDC argues that Discharger cannot show compliance with water recreation standards. This is false. As discussed above under "Bacteria", the Discharger's extensive beach monitoring program demonstrates there is no impact to beach water quality from the subject discharge. Staff analyzed all surf zone total coliform monitoring data collected since 1993…over ten years of data. The data set consisted of 385 to 390 samples at each monitoring station. With exception to the monitoring station at the mouth of Morro Creek, the annual median at each monitoring station was well below 70 MPN/100 mL. Staff's inclusion of the exemplary Heal the Bay Beach Report Card results for this beach was only to reinforce that the subject discharge is not impacting beach water quality. The Discharger's comprehensive beach monitoring program is the basis of staff's evaluations, not Heal the Bay's Beach Report Card (which is based on a far more limited data set). NRDC points out that Atascadero (i.e. Morro Strand State) Beach received an "F" grade for wet weather in the 2005 Report Card, but fails to qualify this statement by pointing out that winter 2004-2005 was an exceptionally wet year, and that the same beach received good grades for the dry season. If the discharge were impacting beach water quality, then one would expect the same beach to receive poor grades during the dry season as well. NRDC points out that

it is unable to determine if the discharge plume comes back to shore. However, the Discharger's annual reports of its intensive offshore monitoring program all clearly illustrate that the discharge plume is rapidly diluted within a short distance from the outfall and not coming back to shore.

- On page 42, NRDC points out that the current beach monitoring program does not include enterococcus monitoring. Enterococcus monitoring was not required by the California Ocean Plan when the existing monitoring program was approved, and the proposed monitoring program includes enterococcus monitoring.

- On Page 47, NRDC states, "For trace metals, the Plant's data also shows a series of violations." This is patently false. The existing and proposed permit includes effluent limitations for these metals, which are protective of water quality. The Discharger has occasionally detected low levels of copper and chromium in effluent, but has never exceeded its effluent limitations.

- On page 50 and 51, NRDC argues that Anti-Degradation policies do not allow any new or increased discharges. The proposed permit does not allow any new or increased discharges. In fact, as discussed previously, effluent limitations for several constituents are more stringent than the existing permit. In addition, the Permit does not permit any degradation of receiving waters, whether this is a Tier III or Tier II discharge. The fact that Morro Bay is within Estero Bay does not make Estero Bay a Tier III water. In addition, NRDC argues that the discharge will so degrade receiving waters that accelerating the schedule by three to four years is critical, but that receiving waters are Tier III waters. The 301(h) modified discharge has existed for over twenty years, making it difficult to reconcile these two positions.

- On page 55, NRDC argues that the Discharger requires an "incidental take permit" from U.S. Fish and Wildlife for the take of sea otters in Morro Bay. This is incorrect. There is no evidence that the subject discharge is killing or harming sea otters, goby or steelhead.

- <u>Alternatives to issuance of the Permit and upgrade according to the settlement agreement:</u>

    - If the Board concludes that the Dischargers have not met the standards for a 301(h) modification, the Board must deny concurrence with EPA's Permit. For example, the Board might consider the evidence and conclude that the Discharger has not shown that a balanced, indigenous population exists outside the zone of initial dilution or in areas likely to be impacted by the discharge; *and* that the Discharger has not shown that the absence of BIP is caused by other pollutant sources and that the discharge is not causing or contributing to the absence of BIP. If the Board denies concurrence, the Clean Water Act would prohibit EPA from issuing the Permit. The Board would then either require a revision of the Discharger's report of waste discharge, if necessary; if not, Water Board staff would redraft the permit to include full

secondary standards, notice another public comment period, and then notice another hearing. In the meantime, the Dischargers have advised that they will petition the denial to the State Water Board. If the State Water Board takes up the petition and issues an order, that will take approximately one year. Either NRDC or the Dischargers are likely to challenge the State Water Board order (or the Central Coast Water Board decision, if the petition is dismissed). Water Board counsel has concluded that there is a substantial exposure to litigation on these issues.

- The upgrade schedule was negotiated, and is not a requirement of the Permit. The Board cannot impose a shorter schedule. A second alternative, with the concurrence of the Discharger, would be to revise the settlement agreement to provide for a shorter schedule. A continuance for this purpose is not recommended unless the Discharger requests it, since a continuance would add additional delay to final resolution of this matter. If a new settlement is feasible, it can be negotiated while any State Water Board petition is pending. However, if the Water Board concludes that the Dischargers have satisfied Section 301(h), the Water Board may not deny concurrence merely to negotiate a new schedule, since that would constitute an abuse of the Board's discretion. Denial of the Permit must be based on failure to satisfy an applicable legal requirement.

Comment 41: Dr. Mark Gold of Heal the Bay, Santa Monica, California, submitted extensive written comments on February 3, 2006, at the request of **NRDC**. The comments include Dr. Gold's background and qualifications, an evaluation of beach monitoring data, an evaluation of monitoring design and information relied upon by USEPA and the Regional Board, as well as Dr. Gold's curriculum vitae. The comment letter is too voluminous to include verbatim here, therefore is included in entirety as an attachment to the Staff Report.

In short, Dr. Gold believes that recent variations in San Luis Obispo County Environmental Health Department monitoring results for this beach suggests influences beyond seasonal storm water discharge, and that such influences could include the subject discharge. Dr. Gold criticizes the Discharger's surf-zone and receiving water monitoring program. Dr. Gold recommends denial of the Permit.

Staff Response 41: Dr. Gold's suggestions that the beach may be influenced by the subject discharge are based on a very limited set of recent beach monitoring by San Luis Obispo County Environmental Health Department. His conclusions are largely based on monthly monitoring during wet season 2004-2005, which includes less than 25 data for that period for this beach. By contrast, staff's evaluation of beach water quality extends back over ten years and includes nearly 400 data points for this beach. This difference exemplifies the superiority of the Discharger's surf-zone monitoring program.

Dr. Gold compares the depth of the subject discharge to those in Southern California, which discharge orders of magnitude more wastewater to the ocean. This is inappropriate comparison.

Dr. Gold states that "EPA and the Regional Board do not refer to monitoring information that would allow them to determine" if discharge plume comes back to shore. The Discharger's offshore monitoring program clearly illustrates that the discharge plume is rapidly diluted within a short distance from the outfall and is not coming back to shore.

Dr. Gold correctly points out that the current beach monitoring program does not include enterococcus monitoring. Enterococcus monitoring was not required by the California Ocean Plan when the existing monitoring program was approved. The proposed monitoring program includes enterococcus monitoring. Such monitoring will not be required until the proposed permit is reissued.

Even if valid, these reasons do not merit denial of the proposed Permit. Such reasons would normally only justify simple modifications to the Discharger's monitoring program, not denial of the Permit. Interestingly, if the Permit was denied and a permit with full-secondary requirements were issued instead, the entire surf-zone monitoring requirement could be eliminated, to be commensurate with other similar Central Coast discharges.

Comment 42: Dr. Bruce Bell of **Carpenter Environmental Associates**, Monroe, New York, submitted extensive written comments on behalf of NRDC on February 3, 2006. The comments include Dr. Bell's background and qualifications, evaluation of water quality impacts, evaluation of the upgrade schedule, and Dr. Bell's curriculum vitae. Dr. Bell is a leading expert of environmental engineering. The comment letter is too voluminous to include verbatim here, therefore is included in entirety as an attachment to the Staff Report.

Dr. Bell provides an evaluation of water quality impacts and the secondary treatment upgrade schedule. Dr. Bell estimates that the upgrade to secondary treatment may be completed in 4.7 to 6.6 years, plus time for Water Board review of the facilities plan. He states, "In summary, the City and District's reasons for recommending the proposed 9.5 year schedule are based on political issues and not technical/construction issues."

Staff Response 42: Staff finds most of Dr. Bell's comments factually correct, although staff has concluded 7 years is a more realistic timeline.

Comment 43: The Otter Project, local chapters of the **Sierra Club** and **Surfrider Foundation**, **California Coastkeeper Alliance**, and **Defenders of Wildlife** all submitted written comments letter. Those comment letters are included in entirety as attachments to the Staff Report. The comment letters either urge denial of the proposed Permit or urge adoption of a shorter upgrade timeline.

Staff Response 43: These comment letters essentially reiterate NRDC's comments and do not necessitate further treatment here. Please refer to staff's response to NRDC's comments above (Comment 40).

Note: The Dischargers submitted a rebuttal to NRDC's comments on March 3, 2006. The Water Board Chairman approved this submittal. Due to timing of the rebuttal, staff is not able to provide a response here.

C. Notification of Hearing Continuance

As discussed in Section II.D of the Fact Sheet, the Central Coast Water Board continued the hearing to provide time for USEPA develop an Endangered Species Act Biological Evaluation on the potential effect to the southern sea otter and the brown pelican. As a result of USEPA's recommendations, the Order incorporates conservation measures proposed by the biological evaluation. The U.S. Fish and Wildlife Service agreed with the biological evaluation that the continued discharge from the Facility will have no likely adverse affects on the southern sea otter and the brown pelican.

The Central Coast Water Board and USEPA have notified the Discharger and interested agencies and persons of its intent to reissue this NPDES Permit and have provided them with an opportunity to submit their written comments specific to the revisions based on the USEPA's Biological Evaluation and concurrence from the U.S. Fish and Wildlife Service. Notification was provided through the publication in the San Luis Obispo Tribune on August 26, 2008, and through the Central Coast Water board website at :

http://www.swrcb.ca.gov/centralcoast/Permits/Index.htm

D. Written Comments on New Information

Interested persons are invited to submit written comments concerning revisions based on the USEPA's Biological Evaluation and concurrence by the U.S. Fish and Wildlife Service. Comments should be submitted either in person, by email, or by mail to the Executive Officer at the Central Coast Water Board and USEPA at the addresses on the cover page of this Order.

Please submit all comments regarding the proposed Waiver in writing to the above address no later than **October 10, 2008**. All comments or objections received prior to that date will be considered in the formulation of staff recommendations regarding the waste discharge. The Central Coast Water Board will not accept comments or other written submissions on the draft Permit after **October 10, 2008**, unless the Central Coast Water Board chairman rules that exclusion would create a severe hardship, and that the late submission will not prejudice any party or the Central Coast Water Board. Any person submitting late comments must explain why the materials were not submitted by **October 10, 2008**. The Central Coast Water Board Chairman will rule on late submittals at or before the hearing. Late submissions that consist of evidence (as

opposed to policy statements or comments) are generally prejudicial unless all designated parties and Central Coast Water Board staff have time to consider the evidence before the meeting.

C. Public Hearing

The Central Coast Water Board will hold the continuation of the joint public hearing conducted in May 11, 2006, on reissuance of the draft NPDES Permit during the Central Coast Water Board's regular meeting as follows:

Date: **December 4-5, 2008**
Time: **8:30 a.m.**
Location: **Regional Water Quality Control Board Conference Room**
895 Aerovista Place, Suite 101
San Luis Obispo, California

Interested persons are invited to attend. At the public hearing, the Central Coast Water Board and USEPA will hear testimony, if any, pertinent to the discharge and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is www.waterboards.ca.gov/centralcoast, where you can access the current agenda for changes in dates and locations.

D. Petitions

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of regulations, title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filling petitions may be found on the internet at:

http://www.waterboards.ca.gov/public_noticies/petitions/water_quality

or will be provided upon request.

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Coast Water Board by calling or faxing Sue Gerdsen at (805) 549-3465 (phone) or (805) 788-3521 (fax).

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding this NPDES Permit should contact the Central Coast Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to **David LaCaro (805) 549-3892 or dlacaro@waterboards.ca.gov**, or Burton Chadwick (805) 542-4786 or bchadwick@waterboards.ca.gov.

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