CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

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ORDER NO. R3-2007-0013
NPDES NO. CA0048828

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF SCOTTS VALLEY WASTEWATER TREATMENT FACILITY

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

Table 1. Discharger Information

Discharger	**City of Scotts Valley**
Name of Facility	**Wastewater treatment facility**
Facility Address	**700 Lundy Lane**
	Scott Valley, CA 95066
	Santa Cruz County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the City of Scotts Valley 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	36 ° 56' 08" N	122 ° 04' 08" W	Pacific Ocean

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	September 7, 2007
This Order shall become effective on:	October 27, 2007
This Order shall expire on:	October 27, 2012
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	March 7, 2012

IT IS HEREBY ORDERED, that Order No. R3-2002-0016 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) 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.

Item No. 16 Attachment No. 1
September 7, 2007 Meeting
Renewal of NPDES Permit for
Scotts Valley WWTP

I, Roger W. Briggs, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on September 7, 2007.

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Roger W. Briggs, Executive Officer

Table of Contents

List of Tables

List of Attachments

I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	**City of Scotts Valley**
Name of Facility	**Wastewater treatment facility**
Facility Address	**700 Lundy Lane**
	Scotts Valley, CA 95066
	Santa Cruz County
Facility Contact, Title, and Phone	**Scott Hamby, Wastewater and Environmental Program Manager, 831-438-0732**
Mailing Address	**SAME**
Type of Facility	**Publicly Owned Treatment Works**
Facility Design Flow	**1.5 million gallons per day (MGD)**

II. FINDINGS

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

A. **Background.** The City of Scotts Valley (Discharger) is currently discharging pursuant to Waste Discharge Requirements (WDRs) Order No. R3-2002-0016 and National Pollutant Discharge Elimination System (NPDES) Permit No.CA48828. The Discharger submitted a Report of Waste Discharge, dated November 15, 2006, and applied for a NPDES permit renewal to discharge up to 1.5 MGD of treated wastewater from the wastewater treatment facility (Facility). The application was deemed complete on November 15, 2006.

B. **Facility Description.** The Discharger owns and operates the Facility. The treatment system consists of screening, grit removal, flow equalization, aeration, clarification, and disinfection. Wastewater is discharged from Discharge 001 to the Pacific Ocean, a water of the United States, through the City of Santa Cruz's 12,250 foot-long outfall/diffuser system in approximately 110 feet of water. The minimum initial dilution ratio of seawater to effluent is 114:1. WDRs Order No. R3-2005-0003 (NPDES Permit No. CA 0048194) regulates the City of Santa Cruz's discharge to the Pacific Ocean. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.

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 a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order 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 E and G are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under 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.

F. **Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent

limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 . A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

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

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

H. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Central Coast Region (Basin Plan) on September 8, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean and other receiving waters addressed through the plan. Beneficial uses applicable to the Pacific Ocean are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	Water contact recreation; Non-contact water recreation; Industrial service supply; Navigation; Marine habitat; Shellfish harvesting; Ocean commercial and sport fishing; protection of Rare, Threatened, or Endangered Species; Wildlife habitat; Aesthetic enjoyment; Mariculture; Fish migration; and Fish Spawning.

Requirements of this Order implement the Basin Plan.

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

ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table 6. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
Outfall 001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

To protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. 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 (WQS) become effective for CWA purposes (40 C.F.R. § 131.21; 65 Fed. Reg. 24641; (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

K. **Shellfish harvesting beneficial use.** The shellfish harvesting beneficial use (SHELL) exists wherever mussels, clams or oysters may be harvested for human consumption. To the knowledge of this Water Board:

1) Mussels are present at most shoreline locations near the discharge;
2) Clamming activity is minor; and
3) Oyster harvesting is not practiced in this area at this time. The shellfish harvesting beneficial use is existing because mussels are plentiful and can be harvested. The shellfish harvesting bacterial limits in Receiving Water Limitation V.A.1.c apply at shoreline monitoring stations except where shellfish harvesting is prohibited by the County Health Officer, which is currently from May 1 to October 31 every year.

L. **Monterey Bay National Marine Sanctuary (Sanctuary).** Wastewater is discharged to a portion of the Pacific Ocean designated as the Sanctuary. Monterey Bay was designated a National Marine Sanctuary on September 15, 1992. Title III of the Marine Protection, Research, and Sanctuaries Act of 1972 mandates the National marine Sanctuaries Program (Program). The Program protects areas of the marine environment which possess conservational, recreational, ecological, historical, researchable, educational or aesthetic qualities of special national significance. The Program's highest priority is the long-term protection of Sanctuary resources. The Sanctuary has been recognized for its unique and diverse biological and physical characteristics.

M. Stormwater. Stormwater runoff, which may be exposed to on-site pollutant sources from rainfall on the wastewater treatment facility, discharges to Carbonera Creek. The Discharger considered routing stormwater through the treatment plant but found it to be cost-prohibitive.

Existing and anticipated beneficial uses of Carbonera Creek potentially affected by stormwater discharges include:

a. Municipal and domestic supply,
b. Agricultural water supply,
c. Industrial water supply,
d. Groundwater recharge,
e. Water contact recreation,
f. Non-contact water recreation,
g. Wildlife habitat,
h. Cold freshwater habitat,
i. Fish migration,
j. Fish spawning, and
k. Commercial and sports fishing.

On November 16, 1990, USEPA promulgated NPDES permit application requirements for stormwater discharges which apply to the Facility (40 CFR §122, §123, and §124). Section 12 requires municipal wastewater treatment facilities with flows greater than 1.0 MGD to obtain a NPDES permit and implement Best Available Technology Economically Achievable and Best Conventional Pollution Control Technology to control pollutants discharged in stormwater. On April 17, 1997, the State Water Board adopted Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Stormwater Associated with Industrial Activities Excluding Construction Activities.* Stormwater discharges from the Facility are subject to the terms and conditions of Water Quality Order No. 97-03-DWQ, as amended.

N. Recycled water. The Discharger and the Scotts Valley Water District reuse recycled wastewater from the tertiary treatment plant, which treats Facility effluent to recycled water standards. State Department of Health Services (DHS) treatment standards for the use of recycled water are in CCR Title 22, Chapter 3. On July 13, 2001, the Board adopted *Master Water Recycling Requirements for the City of Scotts Valley Wastewater Treatment Plant, Santa Cruz County, and Master Water Recycling Requirements Order No. 01-067 for Scotts Valley Water District, Santa Cruz County.* Orders Nos. 01-066 and 01-067 regulate the supply and distribution of tertiary-treated wastewater, and were prepared in consultation with DHS. In 2006, the Discharger produced and the Water District distributed 40,250,000 gallons (925 acre-feet) of recycled wastewater for landscape irrigation. The use of the recycled water directly reduced demand by 925 acre-feet on the City's limited groundwater supplies.

O. Sanitary sewer system. On May 2, 2006, the State Water Board adopted Order No. 2006-0003-DWQ, *Statewide General WDR for Sanitary Sewer Systems* (General

Order). The Discharger submitted its Notice of Intent to comply with the terms of the General Order on July 7, 2006.

P. **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 pollutants listed in Table 7. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by USEPA on February 14, 2006. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). This Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Q. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

R. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l), prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

S. **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 the applicable Endangered Species Act.

T. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 of the CWC authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

U. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

V. Provisions and Requirements Implementing State Law. The provisions/requirements insubsections *IV.B and V.A* 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.

W. 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 the Fact Sheet of this Order.

X. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. Discharge Prohibitions[BP]

1. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited.

2. Discharge of treated wastewater at locations other than those listed below is prohibited.

   a. City of Santa Cruz Ocean Outfall (36°,56',08" N Latitude, 122°,04',08" W Longitude), and
   b. Approved recycled water reuse sites authorized by Order Nos. 01-066 and 01-067.

3. Discharge of any radiological, chemical, or radioactive waste is prohibited.

4. Bypass of the treatment facility and discharge of wastewater not meeting this order's discharge specifications is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Wastewater treatment facility Discharge Point 001

Throughout this Order, the following references show the origin of waste discharge requirements. Staff developed requirements without references using best professional judgment. Refer to Fact Sheet (Attachment F) for detailed information.

CFR	Title 40, Code of Federal Regulations
OP	California Ocean Plan
BP	Central Coast Water Quality Control Plan (Basin Plan)
CCR	California Code of Regulations, Title 17, Sections 7957 and 7958

The definitions of terms throughout this Order are in Attachment D or the 2005 Ocean Plan.

B. Final Effluent Limitations

1. The Discharger shall comply with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF as described in the attached MRP:

Table 7. Effluent Limitations

Parameter	Units	Effluent Limitations					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C [1,2,CFR]	mg/L	25	40	85			
	lbs/day	310	500	1,060			

Parameter	Units	Effluent Limitations					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
Biochemical Oxygen Demand 5-day @ 20°C[1,2,CFR]	mg/L	30	45	90			
	lbs/day	375	565	1,125			
Total Suspended Solids[1,2,CFR]	mg/L	30	45	90			
	lbs/day	375	565	1,125			
pH[OP, CFR,3]	standard units				6.0	9.0	
Oil and Grease[OP]	mg/L	25	40	75		per '05 UP	
	lbs/day	310	500	940			
Settleable Solids[OP]	mL/L	1.0	1.5			3.0	
Turbidity[OP]	NTU	75	100			225	
Total coliform[OP,4]	MPN/100 mL					100,000	
Fecal coliform[OP,4]	MPN/100 mL					20,000[6]	
Enterococcus[OP]	MPN/100 mL					2,400[7]	
Acute Toxicity	TUa			3.7			
Chronic Toxicity	TUc			115			

1. The average monthly percent removal shall not be less than 85 percent.
2. For flows less than 1.5 MGD, mass emission rates shall not exceed the "Maximum Allowable Mass Emissions Rate."
3. Excursions from the effluent limit range are permitted subject to the following limitations (40CFR section 401.17):
   a. The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month, and
   b. No individual excursion from the range of pH values shall exceed 60 minutes. 40CFR401.17 (2)(c) states, for the purposes of 40CFR401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines."
4. Total and fecal coliform values are based on existing dilution ratio of 114:1 with a 12% factor of safety. The 12% factor of safety was applied during previous permit renewals to conform to the Anti-Backsliding provisions of 40 CFR, Section 122.44(l), and is continued herein.
5. Not more than ten percent of the total samples collected in any 60-day period shall exceed 40,000 per 100 mL.
6. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 20,000 per 100 mL.
7. The enterococcus concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 2,400 per 100 mL for any 30-day period, or a log mean of 1,200 per 100 mL for any 6-month period.

Table 7 (continued). Effluent Limitations for Total Chlorine Residual

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Chlorine Residual[1]	mg/L	0.23	0.93	6.9
	lbs/day	2.9	12	86

[1] Water quality objectives for total chlorine residual in intermittent discharges not exceeding two hours shall be determined using the following equation:

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

where:
y = the water quality objective (in ug/L) to apply when chlorine is being discharged; and
x = the duration of uninterrupted chlorine discharge in minutes.
The applicable effluent limitation must then be determined using Equation No. 1 from the Ocean Plan.

2. For flows equal to or less than 1.5 MGD, the effluent mass emission rate shall not exceed the "Maximum Allowable Mass Emission Rate."[CFR]

3. During any 24-hour period, the effluent mass emission rate shall not exceed the "Maximum Allowable Daily Mass Emission Rate." [CFR]

4. Violation of the "Instantaneous Maximum" or "Maximum Allowable Daily Emission Rate" must be reported to the Board within 24 hours. [CFR]

5. During any six-month period, the effluent mass emission rate shall not exceed the "Maximum Allowable Six-Month Median Mass Emission Rate." [CFR]

6. Effluent daily dry weather flow shall not exceed a monthly average of 1.5 MGD.

7. Effluent shall be essentially free of materials and substances that [OP]:

   a. Float or become floatable upon discharge;
   b. May form sediments which degrade benthic communities or other aquatic life;
   c. Accumulate to toxic levels in marine waters, sediments, or biota;
   d. Decrease the natural light to benthic communities and other marine life; and
   e. Result in aesthetically undesirable discoloration of the ocean surface.

8. The discharge of waste shall not cause violation of water quality objectives established in the California Ocean Plan, latest revision.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the 2005 Ocean Plan and Basin Plan. The discharge shall not cause a violation of the following receiving water limitations in the Pacific Ocean. The Water Board may require the Discharger to investigate the cause of exceedances in the receiving water before determining whether the Discharger caused the violation of the receiving water limitations.

1. Bacterial Characteristics

The discharge shall not cause the following water quality objectives to be violated in ocean waters upon completion of initial dilution:

a. **Water Contact Standards**

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 farther from the shoreline, and in areas outside this zone used for body-contact sports, as determined by the Water Board and 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 site:

i Total coliform density shall not exceed 1,000 per 100 mL,
ii Fecal coliform density shall not exceed 200 per 100 mL, and,
iii. Enterococcus density shall not exceed 35 per 100 mL.

2) Single Sample Maximum:

i. Total coliform density shall not exceed 10,000 per 100 mL,
ii. Fecal coliform density shall not exceed 400 per 100 mL,
iii. Enterococcus density shall not exceed 104 per 100 mL, and
iv. Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform/total coliform ratio exceeds 0.1.

b. **Department of Health Services Standards**

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

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

c. **Shellfish Harvesting Standards**

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

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.

2. Physical Characteristics

a. Floating particulates and grease and oil shall not be visible.

b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

c. Natural light shall not be significantly reduced at any point outside the zone of initial dilution as the result of the discharge of waste.

d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

e. Temperature of the receiving water shall not be altered to adversely affect beneficial uses.

3. Chemical Characteristics

a. The dissolved oxygen concentration shall not be depressed more than 10 percent from that which occurs naturally or fall below 5.0 mg/L as the result of the discharge of oxygen-demanding waste materials.

b. The pH shall not be changed more than 0.2 units from that which occurs naturally and shall be within the range of 7.0 to 8.5 at all times.

c. The dissolved sulfide concentrations of waters in and near sediments shall not be significantly increased above that present under natural conditions.

d. The concentrations of substances set forth in Effluent Limitation No. IV.B.1. shall not be increased in marine sediments to levels which would degrade indigenous biota.

e. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.

f. Nutrient materials shall not cause objectionable aquatic growth or degrade indigenous biota.

4. Biological Characteristics

a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

6. General Standards

a. The discharge shall not cause deposition of visible sewage solids or other physical evidence of the waste discharge on beaches, rocks, or shorelines, and material of sewage origin shall not be visible in the water.

b. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Water Board or the State Board, as required by the Clean Water Act and regulations adopted thereunder.

VI. PRETREATMENT SPECIFICATIONS

1. The discharger shall implement standards and limits for industrial discharges to the sanitary sewer system, pursuant to Scotts Valley City Ordinance 79.18.

2. The Discharger shall comply and ensure affected indirect dischargers comply with the Standard Provisions.

3. With its annual report, the Discharger shall describe the Discharger's pretreatment activities over the previous calendar year. The report shall, at a minimum, include the following:

   a. A discussion of upset, interference, or pass-through incidents, if any, at the POTW which the Discharger knows or suspects were caused by industrial users of the POTW system;

   b. An updated list of the Discharger's industrial users, including their names and addresses;

   c. A summary of inspection and sampling activities conducted by the Discharger during the previous calendar year to gather information and data regarding industrial users;

   d. A summary of the Discharger's compliance and enforcement activities during the previous calendar year;

   e. A description of any significant changes in the Discharger's pretreatment program, including modifications or amendments to the City's Ordinance No. 79.18;

   f. A summary of any public participation activities to involve and inform the public; and

   g. A description of any changes in biosolids disposal methods.

VII. PROVISIONS

A. Standard Provisions

The Discharger shall comply with all Standard Provisions included in Attachment D of this Order. The Discharger shall comply with MRP No. R3-2007-0013, and any amendments thereto, as ordered by the Executive Officer.

1. The Discharger shall comply with all the attached Federal and Central Coast Region's *Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits* (also referred to as "Standard Provisions"). Paragraph 7.b of the Standard Provisions shall apply only if the bypass is for essential maintenance to assure efficient operation.

2. This Order expires on **October 27, 2012** and the Discharger must file a complete ROWD in accordance with Title 23, Division 3, Chapter 9, of the CCR, **no later than March 7, 2012**, if the discharge will continue.

3. The Discharger shall conduct a Bacterial Assessment and take appropriate remedial action to control source(s) if the discharged effluent has three consecutive bacteria tests that exceed 100,000 MPN/100 mL.

4. If requested by the Executive Officer, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with current USEPA guidance. Once sources of toxicity are identified, the Discharger shall take all reasonable steps necessary to reduce toxicity to the required level.

5. The Discharger shall conduct sanitary sewer surveys when so directed by the Water Board or the Executive Officer. The Discharger shall control any controllable discharges identified in a sanitary sewer survey.

6. The Water Board must approve any additional connections outside the City sewer service area to the effluent sewer main.

7. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above an Ocean Plan Table B water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

If the discharge consistently exceeds an effluent limitation for toxicity specified in Section IV of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) defined in Attachment A and if required by the Executive Officer. 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.

Chronic Whole Effluent Toxicity. For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct acute and chronic whole effluent toxicity (WET) testing, as specified in MRP section V. Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds the numeric toxicity monitoring trigger during accelerated monitoring established in this Provision, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE) in accordance with an approved TRE Work Plan, and take actions to mitigate the impact of the discharge and prevent recurrence of toxicity. A TRE is a site-specific study conducted in a stepwise process to identify the source(s) of toxicity and the effective control measures for effluent toxicity. TREs are designed to identify the causative agents and sources of whole effluent toxicity, evaluate the effectiveness of the toxicity control options, and confirm the reduction in effluent toxicity. This Provision includes requirements for the Discharger to develop and submit a TRE Work Plan and includes procedures for accelerated chronic toxicity monitoring and TRE initiation.

i) **Toxicity Reduction Evaluation (TRE) Work Plan.** Within 90 days of the effective date of this Order, the Discharger shall submit to the Regional Water Board a TRE Work Plan for approval by the Executive Officer. The TRE Work Plan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Work Plan must be developed in accordance with USEPA guidance (EPA/600/2-88/062) and be of adequate detail to allow the Discharger to immediately initiate a TRE as required in this Provision.

ii) **Accelerated Monitoring and TRE Initiation.** When the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications. The Discharger shall initiate a TRE to address effluent toxicity if any WET testing results exceed the numeric toxicity monitoring trigger during accelerated monitoring.

iii) **Numeric Toxicity Monitoring Trigger.** The numeric toxicity monitoring trigger to initiate a TRE is > 1 TU_C (where TU_C = 100/NOEC). The monitoring trigger is not an

effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring and initiate a TRE, if required to do so by the Executive Officer.

iv) **Accelerated Monitoring Specifications.** If the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity testing, the Discharger shall initiate accelerated monitoring within 14-days of notification by the laboratory of the exceedance. Accelerated monitoring shall consist of four (4) chronic toxicity tests conducted once every two weeks using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring and TRE initiation:

(a) If the results of four (4) consecutive accelerated monitoring tests do not exceed the monitoring trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(b) If the source(s) of the toxicity is easily identified, the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four (4) consecutive accelerated tests do not exceed the monitoring trigger. Upon confirmation that the effluent toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.

(c) If the result of any accelerated toxicity test exceeds the monitoring trigger, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty (30) days of notification by the laboratory of any test result exceeding the monitoring trigger during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:

(1) Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;

(2) Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

(3) A time schedule for these actions.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

(i) The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the Method Detection Limit (MDL), sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results

of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

(a) The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or

(b) The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section E.B.4.

(ii) The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(a) An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling; Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

(b) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

(c) Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy and

(d) An annual status report that shall be sent to the Regional Water Board including:

1. All PMP monitoring results for the previous year;

2. A list of potential sources of the reportable pollutant(s);

3. A summary of all actions undertaken pursuant to the control strategy; and

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

4. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids are non-hazardous sewage sludge as defined in 40 CFR 503.9. Hazardous biosolids as defined in 40 CFR 261 must be disposed in accordance with the Resource Conservation and Recovery Act (RCRA). Sludge with PCB levels greater than 50 mg/kg must be disposed in accordance with 40 CFR 761.

(1) Management of all biosolids must comply with all requirements of CFR Parts 257, 258, 501, and 503, including all monitoring, record-keeping, and reporting requirements. Since the USEPA delegated the authority to implement the biosolids program to State of California, USEPA shall enforce biosolids requirements of CFR Part 503 at this time.

(2) 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.

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

The Discharger is responsible for ensuring that all biosolids produced at the 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 need to comply with 40 CFR 257, 258, and 503.

(3) 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.

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

(5) Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.

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

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

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

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

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

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

(12) The Discharger shall allow the USEPA, Water Board, or an authorized representative thereof, upon the presentation of credentials, directly or through contractual arrangements with their biosolids management contractors, to:

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

ii. Access 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.

(13) Monitoring shall be conducted in accordance with the MRP (MRP) of this Order (see Attachment E, MRP Section VI.B, *Biosolids Monitoring, Reporting, and Notification*).

(14) 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 the Water Board, whether or not the requirements are stated in an NPDES permit or any other permit issued to the Discharger.

5. Other Special Provisions

a. Discharges of Storm Water. For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, if applicable, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Resources Control Board's Water Quality Order 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*.

b. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). This General Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management,

operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger shall seek coverage under the General Permit and comply with its requirements.

VIII. COMPLIANCE DETERMINATION

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

A. General.

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

B. Multiple Sample Data.

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

The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

1. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though 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). 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. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

Attachment A – Definitions

Acute Toxicity:

a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

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

b. Lethal Concentration 50% (LC 50)

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

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

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

where:

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

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

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

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

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

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

a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL)

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

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

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

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

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

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

Detected, but Not Quantified (DNQ) are those sample results less than the reported Minimum Level, but greater than or equal to the laboratory's MDL.

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

Downstream Ocean Waters shall mean waters downstream with respect to ocean currents.

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

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

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

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

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

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

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

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

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

discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.

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

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

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

Mariculture is the culture of plants and animals in marine waters independent of any pollution source.

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

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

MDL (Method Detection Limit) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, PART 136, Appendix B.

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

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

Not Detected (ND) are those sample results less than the laboratory's MDL.

Ocean Waters are the territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the

state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons) 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.

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.

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

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

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

Shellfish are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference is defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

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

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

TCDD Equivalents 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 in the table below.

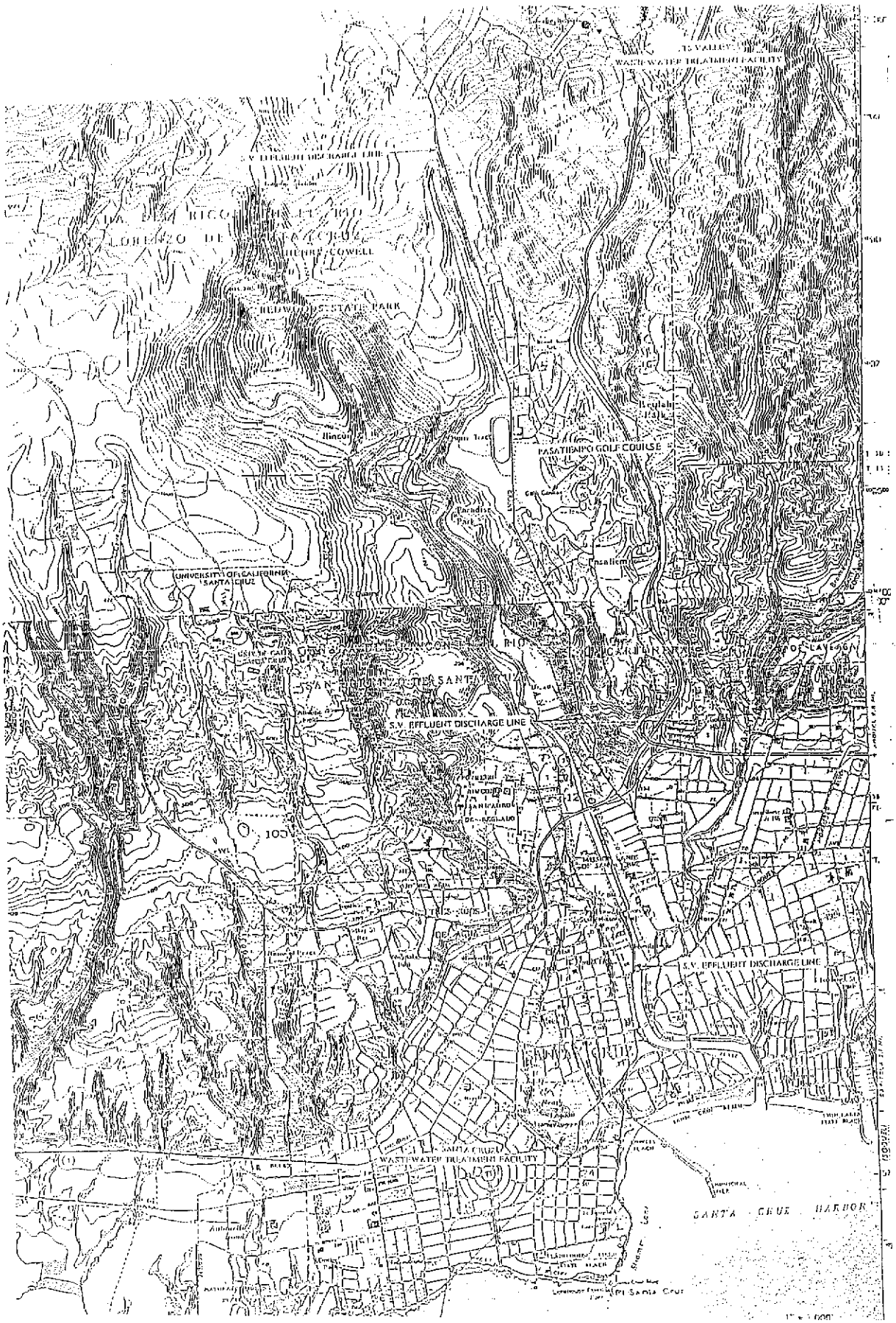
Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Toxicity Reduction Evaluation (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.)

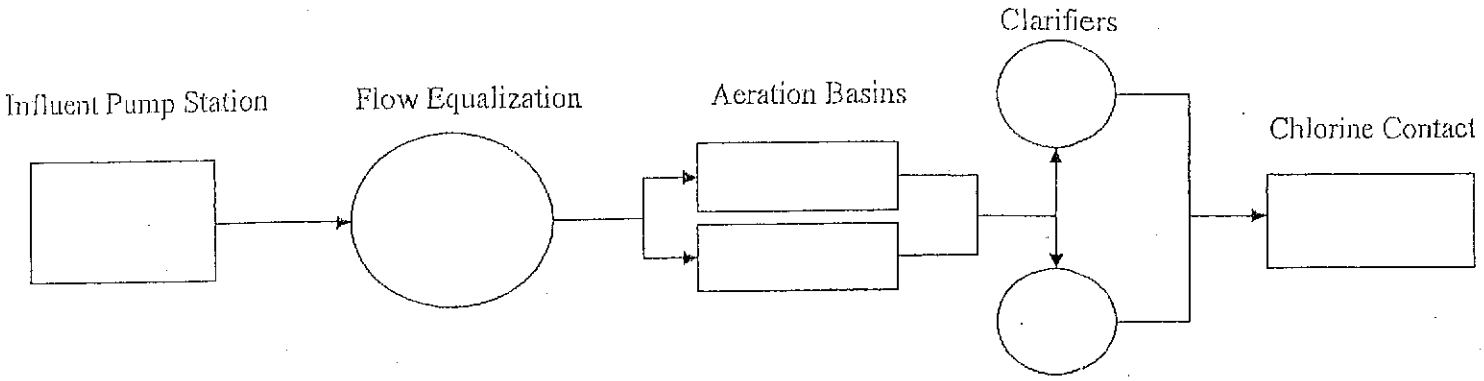
Waste: As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D –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 Dischargers 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 "Dischargers" 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, Dischargers designated as major dischargers 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 January 30th 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 = (XI + 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):

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

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.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Table of Contents

List of Tables

I. GENERAL MONITORING PROVISIONS

A. Laboratories analyzing monitoring samples shall be certified by the Department of Health services, in accordance with Water Code section 13176, and shall include quality assurance/quality control date with the reports.

B. Samples and measurements taken as required herein shall be representative of the volume and nature of the 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 by the Executive Officer.

C. To ensure accuracy, the Discharger shall install, calibrate, and maintain reliable flowmeters (annually) and all other monitoring equipment consistent with accepted practice. Flowmeters shall be able to measure flowrates within two percent of the actual rate. The following references provide guidance on how to select, calibrate, and operate flowmeters.

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 (Available from the U.S. Government Printing Office, Washington, DC 20402)
2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation. (Available from the U.S. Government Printing Office, Washington, DC20402)
3. *Flow Measurement in Open Channel and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977 (Available from National Technical Information Services Springfield VA 22151)
4. *NPDES Compliance Sampling Manual*, USEPA, Publication MCD-51, 1977 (Available from General Services Administration (8FFS), Denver Federal Center, CO 80225).

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF	**Influent at headworks**
001	EFF	**Effluent discharge to outfall (36°56'08" N, 122°04',08"W)**

CORE MONITORING

III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor influent to the facility at Monitoring Location INF in accordance with the following schedule.

Table 2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MGD	Metered	Daily
Maximum Daily Flow	MGD	Metered	Monthly
Mean Daily Flow	MGD	Calculated	Monthly
BOD_5	mg/L	8-Hr Composite	Quarterly (Jan, Apr, Jul, Oct)
Total Suspended Solids (TSS)	mg/L	8-Hr Composite	Quarterly (Jan, Apr, Jul, Oct)

IV. EFFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor effluent at Monitoring Location EFF–001 in accordance with the following schedule.

Table 3. Effluent Monitoring at EFF - 001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow[6]	MGD	Metered	Daily
Maximum Daily Flow[6]	MGD	Metered	Daily
Mean Daily Flow[6]	MGD	Calculated	Monthly
pH	pH units	Grab	Weekly
$CBOD_5$	mg/L	24-hr composite	Weekly
TSS	mg/L	24-hr composite	Weekly
Settleable Solids	mL/L/hr	Grab	Weekly
Total & Fecal Coliform[5]	MPN/100 mL	Grab	Every 6 days
Enterococci[5]	MPN/100 mL	Grab	Every 6 days
Total Chlorine Residual[1]	mg/L	Continuous	Daily
Turbidity	NTUs	Grab	Monthly
Oil and Grease	mg/L	Grab	Monthly
Acute Toxicity [2]	TUa	24-hr Composite	Quarterly(Jan, Apr, Jul, Oct)
Chronic Toxicity [2]	TUc	24-hr Composite	Quarterly(Jan, Apr, Jul, Oct)
Ocean Plan Table B Metals [3]	µg/L	HVWS[6]	Annually (in July)
Ocean Plan Table B Pollutants [4]	µg/L	HVWS[6]	Annually (in July)

[1] The Discharger shall monitor effluent continuously for chlorine residual at any point after dechlorination and before the discharge combines with the City of Santa Cruz's discharge. The Discharger shall review the continuous monitoring strip charts and submit a summary of the daily range and daily average concentrations to the Executive Officer with monthly monitoring reports.

[2] See Whole Effluent Toxicity testing requirements, below.

[3] Metals in 2005 Ocean Plan Table B (arsenic, cadmium, hexavalent chromium, copper, lead, mercury, nickel, selenium, silver, and zinc).

[4] Pollutants in 2005 Ocean Plan Table B. Analyses, compliance determination, and reporting shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III. The Discharger shall ensure its analytical laboratory uses the Minimum Levels (MLs) presented in Ocean Plan Appendix II as the lowest calibration standards. The Discharger shall select the lowest ML necessary to demonstrate compliance with effluent limitations. If effluent limitations are less then the lowest ML, then the Discharger shall use the lowest ML.

[5] Total coliform, fecal coliform and enterococcus effluent monitoring apply if the Executive Officer concludes that receiving water bacterial monitoring demonstrates the discharge violates this Order's Receiving Water Limitation No. V.A.1.

[6] HVWS = High volume water sampling

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing

Compliance with acute toxicity objectives (TUa) shall be determined using a USEPA-approved protocol as provided in 40 CFR136 (*Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms – EPA-821-R-02-012,* or subsequent editions). Acute toxicity monitoring shall be conducted using marine test species instead of freshwater species when measuring compliance.

Acute toxicity (TUa) = 100/96-hr LC50.

LC50 (percent wastewater giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques. The Discharger shall use one of the approved marine test species identified in EPA-821-R-02-012, preferably Silversides (Menidia beryllina). However, the Discharger may use other marine test species in EPA-821-R-02-012 if approved by the Executive Officer. The Discharger may use *Sheepshead Minnow (Cyprinodon variegates)* with pH correction instead of menidia beryllina when the Discharger complies with EPA requirements.

If the Discharge can demonstrate that specific identifiable substances in the discharge are rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC50 may be measured after adjusting the test samples by removing the influences of those substances.

When it is impossible to measure the 96-hour LC50 due to greater than 100 percent survival in 100 percent wastewater, the toxicity shall be calculated with the following expression:

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

Where S = percentage survival in 100% wastewater. If S . 99, then TUa shall be reported as zero.

B. Chronic Toxicity Testing

Chronic toxicity (TUc) = 100/NOEL. The No Observed Effect Level (NOEL) 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 TUc toxicity test. In accordance with the Ocean Plan, Appendix III, *Standard Monitoring Procedures,* the Discharger shall use the critical life stage toxicity tests 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, 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 4. Short-Term Methods for Estimating Chronic Toxicity – Salt Water

Species	Scientific Name	Effect	Test Duration
Giant kelp	*Macrocysits pyrifera*	Percent germination; germ tube length	48 hours[1,3]
Abalone	*Haliotis rufescens*	Abnormal shell development	48 hours[1,3]
Oyster Mussel	*Crassostrea gigas* *Mytilus edulis*	Abnormal shell development; percent survival	48 hours[1,3]
Urchins	*Strongylocentrotus purpuratus; S. franciscanus;*	Percent fertilization	1 hour[1,3]
Sand dollar	*Dendraster excentricus*	Percent fertilization	1 hour[1,3]
Shrimp	*Mysidopsis bahia*	Percent survival; growth; fecundity	7 days[2,4]
Silversides	*Menidia beryllina*	Larval growth rate; percent survival	7 days[2,4]

[1] 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 the West Coast Marine and Estuarine Organisms.* US EPA Report No. EPA-600/R-95/136.

[2] 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 Waters to Marine and Estuarine Organisms.* US EPA Report No. EPA-600/4-91/003.

[3] California State Water Quality Control Board. 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ.

[4] Weber, C.I, W.B. Horning, II, D.J. Klemm, T.W. Neilheisel, P.A. Lewis, E.L. Robinson, J. Menkedlick, and F. Kessler (eds). 1988. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine Estuarine Organisms.* EPA-600/4-87/028. National Technical Information Service, Springfield, VA.

Authorized dischargers shall conduct toxicity tests using effluent dilutions of 100%, 85%, 70%, 50%, and 25%. Dilution and control waters shall be obtained from an area of the receiving water 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.

The sensitivity of test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

C. Toxicity Reporting

1. 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).

2. 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, U.S. EPA Office of Water, EPA-821-R-02-012 (2002) or subsequent editions, or *Short Term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA-600/4-87/028.

3. 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.

4. Within 14 days of receipt of test results exceeding an acute or 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.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

This section does not apply to the Discharger.

VII. RECLAMATION MONITORING REQUIREMENTS

This section does not apply to the Discharger.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

In accordance with WDRs Order No. R3-2005-0003 (NPDES No. CA 48194), the City of Santa Cruz monitors the effects of its discharge combined with the Discharger's into the Pacific Ocean.

IX. OTHER MONITORING REQUIREMENTS

Biosolids Monitoring, Reporting, and Notification

1. The Discharger shall analyze a representative biosolids sample for the constituents and at the frequencies in the following. A minimum of twelve grab samples taken at equal time intervals over a typical dewatering operational period up to 24 hours shall comprise each composite sample. The Discharger shall take the grab samples from the last representative point in the solids handling process before transporting the solids to disposal, shall record the sample times and location in a dedicated logbook, and shall report the results in the Annual Report.

   The Discharger shall analyze the biosolids for the metals required in 40 CFR 503.16 (for land application) or Section 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 in 40 CFR 503.16. Table 9 provides the current CFR frequencies.

Table 5
Biosolids analysis and reporting schedules

Amount [1] (dry metric tons per 365-day period)	Frequency [2]
Greater than zero but less than 290	Annually (January)
Equal to or greater than 290 but less than 1,500	Quarterly (Jan, Apr, Jul, Oct)
Equal to or greater than 1,500 but less than 15,000	Bi-monthly (Jan, Mar, May, Jul, Sep, Nov)
Greater than 15,000	Monthly

[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 District'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 above.

For Surface Disposal: Amount of biosolids placed on an active sewage sludge unit (dry weight basis).

[2] Test results shall be expressed in mg pollutant per kg biosolids on a dry weight basis.
The Discharger's 2006 Annual Report states that the treatment facility generated 297 dry tons of biosolids were generated in 2006. In accordance with Table 9, the Discharger would sample the biosolids quarterly. However,

pursuant to 40 CFR 503, biosolids sampling to date demonstrates that potential pollutants in the biosolids are present at levels typical of municipal biosolids and do not vary significantly in either quantity or character. Therefore, the Discharger shall continue to monitor its biosolids annually and dispose the biosolids to land at disposal facilities approved for municipal biosolids..

All constituents shall be analyzed for total concentrations 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 (STLC) limit for that substance. [CCR, Title 22, Division 4.5, Chapter 11, Article 3]

TABLE 6
Minimum Biosolids Monitoring

Parameter	Units	Sample Type	Min. Analysis Frequency
Quantity	Tons	Measured	Continual
Disposal Location	--	--	see below[2]
Moisture	%	Grab	Annually
pH	pH Units	Grab	Annually
Boron	mg/kg[1]	Grab	Annually
Cadmium	mg/kg[1]	Grab	Annually
Copper	mg/kg[1]	Grab	Annually
Chromium (Total)	mg/kg[1]	Grab	Annually
Lead	mg/kg[1]	Grab	Annually
Mercury	mg/kg[1]	Grab	Annually
Nickel	mg/kg[1]	Grab	Annually
Silver	mg/kg[1]	Grab	Annually
Zinc	mg/kg[1]	Grab	Annually
Total Kjeldahl Nitrogen	mg/kg[1]	Grab	Annually
Ammonia (as N)	mg/kg[1]	Grab	Annually
Nitrate (as N)	mg/kg[1]	Grab	Annually
Total Phosphorus	mg/kg[1]	Grab	Annually
Paint Filter Test (As per SW-846, Method 9095 - Required only if sludge is disposed in a landfill)	mg/kg[1]	Grab	Annually
Grease & Oil	mg/kg[1]	Grab	Annually
Priority Pollutants	mg/kg[1]	Grab	May 2011

1 Analyze total wet sample and report results as mg/kg based on the sample dry weight.

2 The annual report shall provide the disposal site's location.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 instead).

2. Before disposing biosolids to land 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 used to achieve this reduction.

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

4. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with greater than five million gallons per day (MGD) influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Clean Water Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and Federal facilities greater than five 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 at least annually to determine if they are hazardous waste. All constituents regulated under CA Title 22, Division 4.5, Chapter 11, Article 3 shall be analyzed 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 Soluble Threshold 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 in the Volume/Frequency table above in No. 1., or more often if necessary to demonstrate that there are no free liquids.

Biosolids Notification

8. The Discharger, either directly or through contractual arrangements 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 Water Board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify EPA Region 9 and the affected Water Boards of the 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 Boards of any non-compliance within the same time frames. See Attachment I of this Order for California Water Board contact information.

Biosolids Reporting

9. The Discharger shall submit an annual biosolids report to the EPA Region 9 Biosolids Coordinator and Central Coast Water Board **with the annual report each year** for the period covering the previous calendar year. The report shall include:

   a. The amount of biosolids generated during the reporting period, in dry metric tons, and its percent solids, and the amount accumulated from previous years;

   b. Results of all pollutant and pathogen monitoring required in this Order and MRP, whether directly stated or included by reference. Results must be reported on a 100% dry weight basis for comparison with 40 CFR 503 limits;

   c. 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;

   d. Names, mailing addresses, 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.

   e. For all biosolids used or disposed at the Discharger's facilities, the site and management practice information and certification required in Sections 503.17 and 503.27; and

   f. For all biosolids temporarily stored, the information required in Section 503.20 required to demonstrate temporary storage;

   g. A schematic diagram showing biosolids handling facilities (e.g., digesters, lagoons, drying beds, and incinerators) and a solids flow diagram;

   h. A narrative description of biosolids dewatering and other treatment processes, including process parameters. For example, if biosolids are digested, report average temperature and retention time of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.

   i. Reports shall be submitted to:

      Regional Biosolids Coordinator
      US EPA (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. 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. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit 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). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table 7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	The day after permit effective date	All	First day of second calendar month following month of sampling.
Daily	The day after 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.
Weekly	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.
Monthly	First day of calendar month following permit effective date or on permit	1st day of calendar month through last day of calendar month	First day of second calendar month

	effective date if that date is first day of the month		following month of sampling.
Annually	January 1 following (or on) permit effective date	January 1 through December 31	February 1st

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 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. Dischargers are 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 Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

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

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

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

Standard Mail	**FedEx/UPS/ Other Private Carriers**
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

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 will not be accepted unless they follow the exact same format of EPA Form 3320-1.

ATTACHMENT F – FACT SHEET

Table of Contents

List of Tables

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.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	3 440103001
Discharger	City of Scotts Valley
Name of Facility	Wastewater treatment facility
Facility Address	700 Lundy Lane
	Scotts Valley, CA 95066
	Santa Cruz County
Facility Contact, Title and Phone	Scott Hamby, Wastewater and Environmental Program Manager 831-438-0732
Authorized Person to Sign and Submit Reports	Scott Hamby, Wastewater and Environmental Program Manager 831-438-0732
Mailing Address	SAME
Billing Address	SAME
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Y
Reclamation Requirements	Producer, WDRs Order No. 01-066
Facility Permitted Flow	1.5 million gallons per day (MGD)
Facility Design Flow	1.5 MGD
Watershed	Big Basin Hydrologic Unit (304)
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The City of Scotts Valley (Discharger) owns and operates the wastewater treatment facility (hereinafter Facility), a Publicly Owned Treatment Works

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order R3-2002-0016 which was adopted on March 27, 2002 and expired on March 27, 2007. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on November 15, 2006 .

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

The treatment system consists of screening, grit removal, flow equalization, aeration, clarification, and disinfection. The design average daily dry weather flow rate is 1.5 MGD. Biosolids are aerobically digested, dewatered and disposed of at the County of Santa Cruz Sanitary Landfill.

B. Discharge Points and Receiving Waters

The Discharger's wastewater is combined with the effluent from the City of Santa Cruz's wastewater treatment facility and discharged to the Pacific Ocean through a 12,250 foot-long outfall/diffuser system in 110 feet of water at 36° 56' 08" N Latitude and 122° 04' 08" W Longitude (Discharge 001. The minimum seawater:effluent initial dilution ratio is 114:1.

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

Effluent Limitations/Discharge Specifications. Existing limitations and requirements on the discharge in Order No. R3-2002-0016 are the same as those required in this Order's Tables IV-1 through IV-5 and in other discharge specifications.

Discharge specifications and representative monitoring data from the term of the previous Order are as follows:

Table 2. Historic Effluent Limitations

Parameter	Units	Effluent Limitation		
		Average Monthly	Average Weekly	Maximum Daily
BOD	mg/L	30	45	90
	lbs/day	375	565	1,125
Total Suspended Solids	mg/L	30	45	90
	lbs/day	375	565	1,125

D. Compliance Summary

The Discharger has suffered no reportable spills or effluent violations within the last three years.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

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

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** In 1994, the Central Coast Water Board adopted a Water Quality Control Plan for the Central Coast Region (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies to achieve the objectives in all waters addressed through the plan. State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires, with certain exceptions, that 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.

The State Water Board revised and adopted the Water Quality Control Plan, Ocean Waters of California (2005 Ocean Plan) on January 20, 2005. The 2005 Ocean Plan contains water quality objectives and other requirements governing discharges to the Pacific Ocean.

Beneficial uses applicable to the Pacific Ocean are as follows:

Table 3

Discharge Point	Receiving Water Name	Basin Plan Beneficial Use(s)
001	Pacific Ocean	Existing: 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); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN).

2. **Antidegradation Policy.** 40 CFR §131.12 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 No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires protection of existing water quality unless degradation is justified based on specific findings. The permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution No. 68-16.

3. **Anti-Backsliding Requirements.** CWA sections 402(o)(2) and 303(d)(4) and 40CFR §122.44(l) prohibit backsliding in NPDES permits. The anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with some minor exceptions due to the appropriate use of rounding the results of effluent limit calculations.

4. **Monitoring and Reporting Requirements.** 40 CFR §122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the regional water boards to require technical and monitoring reports. The MRP (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.

5. **California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (2005 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 2005 Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The 2005 Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table 4. 2005 Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	2005 Ocean Plan Beneficial Uses
Outfall 001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

To protect the beneficial uses, the 2005 Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the 2005 Ocean Plan.

6. **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 (40 CFR § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect, and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

7. **Impaired Water Bodies on CWA 303(d) List.** Carbonera Creek is on the 303 (d) List for non-attainment of water quality objectives for fecal coliform. Fecal coliform concentrations exceed objectives and *E. coli* concentrations exceed federal water quality criteria for water contact recreational beneficial use. Staff concluded natural sources such as birds, rodents and wildlife are a major contributor. Non-natural causes of impairment are sewage spills, storm drain discharges, homeless encampments, occasional septic system failures, and farm animals/livestock. Staff expects some of the natural sources are controllable. Finding I.L lists Carbonera Creek's beneficial uses. Staff is developing the preliminary Project Report, which describes actions the Discharger and other entitles shall take to reduce pathogen levels in Carbonera Creek. Staff proposes to submit the TMDL for the Board's consideration at the regularly scheduled public meeting in February 2008.

D. Other Plans, Polices and Regulations

1. **Discharges of Storm Water.** For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, the Order requires the Discharger to seek authorization to discharge under and meet the requirements of the State Water Resources Control Board's Water Quality Order 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

2. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General WDRs).** General WDRs Order No. 2006-0003-DWQ, adopted May 2, 2006, applies to publicly owned sanitary sewer systems one mile or greater in length. The General WDRs requires each sewer (collection) system entity to develop a Sanitary Sewer Management Plan (SSMP). SSMPs shall include the following: goals; organization; legal authority; operations and maintenance program; design and performance provisions; overflow emergency response plan; a control program for fats, oils, and greases; systems evaluations and capacity assurance program; monitoring measures; program modifications; and SSMP Program audit. Additionally, the General

WDRs requires collection system entities to report sanitary sewer overflows (SSOs). Collection system entities are required to report SSOs greater than 1,000 gallons. Entities must also report SSO spills less than 1,000 gallons to surface waters or storm drains or that threaten public health. The General WDRs require reporting through the Statewide Online SSO database. Reporting intervals vary depending on discharge amount and destination. On July 7, 2006, the Discharger submitted a Notice of Intent to comply with the General WDRs.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants they discharge into the waters of the United States. Effluent limitations and other requirements in NPDES permits control the pollutants discharged. The Code of Federal Regulations provides two principal bases for effluent limitations in: section 122.44(a) requires permits include applicable technology-based limitations and standards; and section 122.44(d) requires permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. When numeric water quality objectives have not been established, but a discharge has the reasonable potential to cause or contribute to an excursion above a narrative criterion, WQBELs may be established using one or more of three methods described at 40 CFR 122.44 (d) – (1) WQBELs may be established using a calculated water quality criterion derived from a proposed State criterion or an explicit State policy or regulation interpreting its narrative criterion; (2) WQBELs may be established on a case-by-case basis using U.S. EPA criteria guidance published under CWA Section 304 (a); or (3) WQBELs may be established using an indicator parameter for the pollutant of concern.

A. Discharge Prohibitions

1. Discharge Prohibition III. 1 (Overflows and bypass are prohibited). The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 CFR 122.41 (m) or an unauthorized discharge which poses a threat to human health and/or aquatic life, and, therefore, is explicitly prohibited by the Order.

2. Discharge Prohibition III. 2 (No discharge at a location except as described by the Order). The Order authorizes a single, specific point of discharge to the Pacific Ocean; this prohibition reflects CWA section 402's prohibition against discharges of pollutants except in compliance with the Act's permit requirements, effluent limitations, and other enumerated provisions.

3. Discharge Prohibition III. D (Discharges of radiological, chemical, or biological warfare agent or high level radioactive waste is prohibited). This prohibition is retained from the previous permit and restates a discharge prohibition established in section III. H of the Ocean Plan.

B. Technology-Based Effluent Limitations

1. Scope and Authority

CWA section 301(b) and USEPA regulations at 40CFR §122.44 mandate that permits require dischargers to meet applicable technology-based requirements and any more stringent effluent limitations necessary to comply with applicable water quality standards.

Regulations in 40CFR §125.3(a)(1) require NPDES permits to include technology-based effluent limitations for municipal dischargers based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of the Act requires that POTWs must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

USEPA subsequently developed secondary treatment regulations at 40 CFR Part 133. The technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. Therefore, this Order requires the discharge to meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40CFR Part 133.

2. Applicable Technology-Based Effluent Limitations

Staff applied effluent BOD_5, effluent $CBOD_5$ and TSS concentrations and removal efficiencies directly from 40CFR 133.102. While 40CFR also provides pH limitations, staff used WQBELs from the 2005 Ocean Plan.

Where applicable, the above technology-based limits are also expressed in mass loading terms, in pounds/day. 40CFR 122.45(f)(2) provides that, "Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the Discharger to comply with both limitations."

The 2005 Ocean Plan Section III.C.4.j states: "Discharge requirements shall also specify effluent limitations in terms of mass emission rate limits utilizing [2005 Ocean Plan Equation No. 3]."

The preceding Permit also contained mass loading limits, so including them in the renewed Permit is not backsliding.

Staff calculated mass loading limits using the following equation (based on Equation No. 3 of the 2005 Ocean Plan):

mass loading in lbs/day = 8.34 x Ce x Q

where:

Ce = the effluent concentration limit, in mg/L; and
Q = the average flow rate observed over the effluent limitation's period, in millions of gallons per day (MGD).

The conversion factor of 8.34 has units of [(lbs/Million Gallons)/(mg/L)].

For example, the effluent $CBOD_5$ 30-day average concentration limit is 25 mg/L (Ce). Using the permitted flow rate of 1.5 MGD and the conversion factor 8.34:

$CBOD_5$ effluent mass loading = 8.34 x 25 x 1.5

$CBOD_5$ effluent mass loading = 312.75lbs/day

The calculated mass loading is rounded to 313 lbs/day because the significant figures are limited to two by the concentration and flow rate. Staff followed this rounding convention for all calculated effluent limits in the Permit.
Based on best professional judgment, staff included the maximum daily effluent limits for BOD_5, $CBOD_5$ and TSS included in previous permits. In accordance with anti-backsliding provisions, staff recommends maintaining these limits.

Table 5. Summary of Technology-based Effluent Limitations
Monitoring Point EFF

Parameter	Units	Effluent Limitations		
		30-day Average	7-day Average	Maximum Daily
Biochemical Oxygen Demand, 5-day (BOD_5)	mg/L	30	45	90
	% removal	At least 85%	N/A	N/A
	lbs/day	380	560	1,100
Carbonaceous Biochemical Oxygen Demand, 5-day ($CBOD_5$)	mg/L	25	40	85
	% removal	At least 85%	N/A	N/A
	lbs/day	310	500	1,100
Total Suspended Solids (TSS)	mg/L	30	45	90
	% removal	At least 85%	N/A	N/A
	lbs/day	380	560	1,100

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

The goal of evaluating reasonable potential and calculating WQBELs when necessary is to protect the Basin Plan's receiving water beneficial uses, and comply with applicable water quality objectives and criteria in other state plans and policies, such as the 2005 Ocean Plan.

The 2005 Ocean Plan is applicable, in its entirety, to point source discharges to the Pacific Ocean (2005 Ocean Plan, *Introduction*, C.1). The 2005 Ocean Plan Section III.C.4 establishes that WQBELs for water quality objectives listed in the 2005 Ocean Plan Table B, with the exception of acute toxicity and radioactivity, shall be determined using the 2005 Ocean Plan Equation No. 1. Staff discusses the use of Equation No. 1 in the next section of this Fact Sheet.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The 2005 Ocean Plan and Basin Plan numeric and narrative water quality criteria and objectives apply to the discharge. The permit includes narrative criteria and footnotes to indicate their sources.

The discharge must meet the 2005 Ocean Plan requirements outside a "zone of initial dilution" (ZID) around the outfall diffuser. The 2005 Ocean Plan defines the ZID as the region in which the rapid, initial mixing occurs.

Computer models are employed to estimate the minimum initial dilution ratio (dilution ratio) of seawater to effluent achieved during the initial mixing phase in the dilution zone. The dilution ratio is used to determine the maximum concentrations of 2005 Ocean Plan pollutants allowed in the wastewater before it is discharged. The proposed Order applies a dilution ratio of 114:1 to the discharge to determine effluent limitations derived from the 2005 Ocean Plan water quality objectives.

3. Determining the Need for WQBELs

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

Endpoint 1 – There is "reasonable potential," and a WQBEL and monitoring are required.

Endpoint 2 - There is no "reasonable potential." WQBELs are not required, and monitoring is required at the discretion of the Central Coast Water Board.

Endpoint 3 - The RPA is inconclusive. Existing WQBELs are retained, and monitoring is required.

The State Water Resources Control Board has developed a reasonable potential calculator, which is available at http://www.waterboards.ca.gov/plnspols/docs/oplans/rpcalc.zip. The calculator (RPcalc 2.0) was used in the development of this Order and considers several pathways in the determination of reasonable potential.

a. First Path

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

b. Second Path

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

c. Third Path

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

d. Fourth Path

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

(1) If the number of censored values (those expressed as a "less than" value) accounts for less than 80 percent of the total number of effluent values, calculate the M_L (the mean of the natural log of transformed data) and S_L (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.

(2) If the number of censored values accounts for 80 percent or more of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution.)

e. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values, but the number of censored values accounts for 80 percent or more of the total number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective, and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the water quality objective.

The following table presents the RPA results, performed in accordance with Ocean Plan procedures and summarized above, for the Scotts Valley Water District wastewater treatment facility. Here, the RPA was conducted using effluent monitoring data generated in three monitoring events from 2002 through 2006. The RPA endpoint for each Table B pollutant is identified. As shown in the following table, the RPA commonly leads to Endpoint 2, meaning that there is no reasonable potential to exceed the effluent limitation.

leads to Endpoint 2, meaning that there is no reasonable potential to exceed the effluent limitation.

The RPA did not show "reasonable potential" for any Table B toxic pollutants.

Table 6. RPA Results for Discharges to the Pacific Ocean

Table B Pollutant	Most Stringent WQO (µg/L)	Effluent limitation (µg/L)	No. of Samples	No. Not Detected	Max Effluent Conc. (µg/L)	RPA Result(RP : reasonable potential)
Objectives for Protection of Marine Aquatic Life						
Arsenic	8	580	5	5	ND	Endpoint 2 – No RP
Cadmium	1	120	5	5	ND	Endpoint 2 – No RP
Chlorinated Phenolics	1	120	5	5	ND	Endpoint 2 – No RP
Chromium (VI)	2	230	5	5	ND	Endpoint 2 – No RP
Copper	3	120	5	5	20	Endpoint 2 – No RP
Cyanide	1	120	5	5	9.1	Endpoint 2 – No RP
Endosulfan (total)	0.009	1.0	5	5	ND	Endpoint 2 – No RP
Endrin	0.002	0.23	5	5	ND	Endpoint 2 – No RP
HCH	0.004	0.46	5	5	0.084	Endpoint 2 – No RP
Lead	2	230	5	5	2.1	Endpoint 2 – No RP
Mercury	0.04	4.5	5	5	ND	Endpoint 2 – No RP
Nickel	5	580	5	5	2.7	Endpoint 2 – No RP
Non-chlorinated Phenolics	30	3,400	5	5	0.48	Endpoint 2 – No RP
Selenium	15	1,700	5	5	ND	Endpoint 2 – No RP
Silver	0.7	62	5	5	ND	Endpoint 2 – No RP
Zinc	20	1,400	5	5	76	Endpoint 2 – No RP
1,1,1-Trichloroethane	540,000	6.2×10^7	5	5	ND	Endpoint 2 – No RP
2,4-Dinitrophenol	4.0	460	5	5	ND	Endpoint 2 – No RP
2-Methyl-4,6-Dinitrophenol	220	2.4×10^4	5	5	ND	Endpoint 2 – No RP
Objectives for Protection of Human Health Noncarcinogens						
Acrolein	220	2.5×10^4	5	5	ND	Endpoint 2 – No RP
Antimony	1,200	1.4×10^5	5	5	0.34	Endpoint 2 – No RP
Bis(2-Chloroethoxy)Methane	4.4	510	5	5	ND	Endpoint 2 – No RP
Bis(2-Chloroisopropyl)Ether	1,200	1.4×10^5	5	5	ND	Endpoint 2 – No RP
Chlorobenzene	570	6.6×10^4	5	5	ND	Endpoint 2 – No RP
Chromium (III)	190,000	2.2×10^7	5	5	0.15	Endpoint 2 – No RP
Dichlorobenzenes	5,100	6.1×10^5	5	5	ND	Endpoint 2 – No RP
Diethyl Phthalate	33,000	3.8×10^6	5	5	ND	Endpoint 2 – No RP
Dimethyl Phthalate	820,000	9.4×10^6	5	5	ND	Endpoint 2 – No RP
Di-n-Butyl Phthalate	3,500	3.8×10^7	5	5	ND	Endpoint 2 – No RP
Ethylbenzene	4,100	4.7×10^5	5	5	ND	Endpoint 2 – No RP
Fluoranthene	15	1.7×10^3	5	5	ND	Endpoint 2 – No RP
Hexachlorocyclopentadiene	58	6.7×10^3	5	5	ND	Endpoint 2 – No RP
Nitrobenzene	4.9	560	5	5	ND	Endpoint 2 – No RP
Thallium	2	230	5	5	ND	Endpoint 2 – No RP
Toluene	85,000	9.8×10^5	5	5	ND	Endpoint 2 – No RP
Tributylin	0.0088	0.16	5	5	2.4	Endpoint 2 – No RP
1,1,2,2-Tetrachloroethane	2.3	260	5	5	ND	Endpoint 2 – No RP

Table B Pollutant	Most Stringent WQO (µg/L)	Effluent limitation (µg/L)	No. of Samples	No. Not Detected	Max Effluent Conc. (µg/L)	RPA Result(RP : reasonable potential)
1,1,2-Trichloroethane	9.4	1.1×10^3	5	5	ND	Endpoint 2 – No RP
1,1-Dichloroethylene	0.9	100	5	5	ND	Endpoint 2 – No RP
1,2-Dichloroethane	28	3.2×10^3	5	5	ND	Endpoint 2 – No RP
1,2-Diphenylhydrazine	0.16	18	5	5	ND	Endpoint 2 – No RP
1,3-Dichloropropylene	8.9	1000	5	5	ND	Endpoint 2 – No RP
1,4 Dichlorobenzene	18	2.1×10^3	5	5	ND	Endpoint 2 – No RP
TCDD Equivalents	3.9×10^{-8}	4.5×10^{-7}	5	5	ND	Endpoint 2 – No RP
2,4,6-Trichlorophenol	0.29	33	5	5	0.67	Endpoint 2 – No RP
2,4-Dinitrotoluene	2.6	300	5	5	ND	Endpoint 2 – No RP
3,3'-Dichlorobenzidine	0.0081	0.93	5	5	ND	Endpoint 2 – No RP
Objectives for Protection of Human Health-Carcinogens						
Acrylonitrile	0.10	12	5	5	ND	Endpoint 2 – No RP
Aldrin	2.2×10^{-5}	2.4×10^{-3}	5	5	ND	Endpoint 2 – No RP
Benzene	5.9	680	5	5	ND	Endpoint 2 – No RP
Benzidine	6.9×10^{-5}	7.9×10^{-3}	5	5	ND	Endpoint 2 – No RP
Beryllium	0.033	3.8	5	5	ND	Endpoint 2 – No RP
Bis(2-Chloroethyl)Ether	0.045	5.2	5	5	ND	Endpoint 2 – No RP
Bis(2-Ethylhexyl)Phthalate	3.5	400	5	5	ND	Endpoint 2 – No RP
Carbon Tetrachloride	0.90	100	5	5	ND	Endpoint 2 – No RP
Chlordane	2.3×10^{-5}	2.6×10^{-3}	5	5	ND	Endpoint 2 – No RP
Chlorodibromomethane	8.6	990	5	5	ND	Endpoint 2 – No RP
Chloroform	130	1.5×10^4	5	5	18	Endpoint 2 – No RP
DDT (total)	0.00017	0.02	5	5	ND	Endpoint 2 – No RP
Dichlorobromomethane	6.2	710	5	5	ND	Endpoint 2 – No RP
Dieldrin	0.00004	4.6×10^{-3}	5	5	ND	Endpoint 2 – No RP
Halomethanes	130	1.5×10^4	5	5	50	Endpoint 2 – No RP
Heptachlor	0.00005	5.8×10^{-3}	5	5	ND	Endpoint 2 – No RP
Heptachlor Epoxide	0.00002	2.3×10^{-3}	5	5	ND	Endpoint 2 – No RP
Hexachlorobenzene	0.00021	0.024	5	5	ND	Endpoint 2 – No RP
Hexachlorobutadiene	14	1.6×10^3	5	5	ND	Endpoint 2 – No RP
Hexachloroethane	2.5	290	5	5	ND	Endpoint 2 – No RP
Isophorone	730	8.4×10^4	5	5	ND	Endpoint 2 – No RP
Methylene Chloride	450	5.4×10^4	5	5	ND	Endpoint 2 – No RP
N-Nitrosodimethylamine	7.3	840	5	5	ND	Endpoint 2 – No RP
N-Nitrosodi-n-Propylamine	0.38	290	5	5	ND	Endpoint 2 – No RP
N-Nitrosodiphenylamine	2.5	290	5	5	ND	Endpoint 2 – No RP
PAHs (total)	0.0088	1	5	5	ND	Endpoint 2 – No RP
PCBs	1.9×10^{-5}	2.2×10^{-3}	5	5	ND	Endpoint 2 – No RP
Tetrachloroethylene	2.0	230×10^6	5	5	ND	Endpoint 2 – No RP
Toxaphene	0.00021	0.024	5	5	ND	Endpoint 2 – No RP
Trichloroethylene	27	3.1×10^3	5	5	ND	Endpoint 2 – No RP
Vinyl Chloride	36	4.1×10^3	5	5	ND	Endpoint 2 – No RP

NA indicates that effluent data is not available

ND indicates that the pollutant was not detected.

Minimum probable initial dilution for this Discharger is 119 : 1.

Effluent data used for this RPA are from March 2003 to March 2006.

All units are ug/L.

4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Central Coast Water Board is not establishing WQBELs for most of the Table B toxic pollutants. Limitations for total residual chlorine and acute and chronic whole effluent toxicity (Table B pollutants), however, are retained from the previous permit. Limitations for these pollutants have been calculated based on a minimum probable initial dilution of 114 to 1.

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

$$Ce = Co + Dm (Co - Cs)$$

Where ...

Ce = the effluent limitation (µg/L)

Co = the concentration (the water quality objective) to be met at the completion of initial dilution (µg/L).

Cs = background seawater concentration (µg/L)

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 115)

As site-specific water quality data is not available, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following.

Table 7. Background Concentrations—Ocean Plan

Pollutant	Background Seawater Concentration
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

Applicable water quality objectives from Table B of the Ocean Plan are as follows.

Table 8. Water Quality Objectives–Ocean Plan

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum	30 Day Avg
Chlorine	µg/L	2.0	8.0	60	---
Acute Toxicity	TUa	---	0.3	---	---
Chronic Toxicity	TUc	---	1.0	---	---

Using the equation, Ce = Co + Dm (Co – Cs), effluent limitations are calculated as follows.

Chlorine

Ce = 2 + 120 (2 – 0) = µg/L (6-Month Median)
Ce = 8 + 120 (8 – 0) = µg/L (Daily Maximum)
Ce = 60 + 120(60 – 0) = 6,960 µg/L (Instantaneous Maximum)

Chronic Toxicity

Ce = 1 + 120 (1 - 0) = 116 TUc (Daily Maximum)

Acute Toxicity

To determine an effluent limitation for acute toxicity, the Ocean Plan allows a mixing zone that is ten percent of the distance from the edge of the outfall structure to the edge of the chronic mixing zone (the zone of initial dilution); and therefore, the effluent limitation for acute toxicity limitation is determined by the following equation.

Ce = Co + (0.1) (Dm) (Co)

Here, where Dm equals 115, the effluent limitation for acute toxicity is 3.75 TUa.

Implementing provisions at Section III. C of the Ocean Plan requires that in addition to concentration-based limits, effluent limitations for Table B pollutants be expressed in terms of mass. Therefore, the Order includes mass-based limits for chlorine based on a design flow of 0.2 MGD.

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests - acute and chronic. An acute toxicity test is conducted over a short time period and

measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

Acute and chronic toxicity limitations are retained from the existing permit. The limitations have been calculated based on a minimum probable initial dilution of 114 to 1.

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

Table 9. Summary of Water Quality-Based Effluent Limitations

Parameter	Units	Effluent Limitations		
		6-Month Median	Daily Maximum	Instantaneous Maximum
Total Chlorine Residual	mg/L	0.23	0.93	6.9
Acute Toxicity	TUa	---	3.75	---
Chronic Toxicity	TUc	---	116	---

D. Final Effluent Limitations

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

1. Satisfaction of Anti-Backsliding Requirements

a. Discharge Point 001

The Order retains effluent limitations established by the previous permit for BOD_5, TSS, oil and grease, settleable solids, turbidity, and pH. Limitations for chlorine, and whole effluent, acute and chronic toxicity have also been retained. Other effluent limitations from the previous permit for the Ocean Plan Table B toxic pollutants have not been retained.

The Ocean Plan was amended in 2005 to include a procedure for determining "reasonable potential" by characterization of effluent monitoring data. A reasonable potential analysis, using the updated Ocean Plan procedure, did not demonstrate "reasonable potential" for any of the Table B pollutants. (Chlorine and whole effluent, acute and chronic toxicity are Table B pollutants; however, the conclusion that "reasonable potential" exists for these pollutants is based on information about the

receiving water and/or the discharge instead of characterization of effluent monitoring data.)

Elimination of WQBELs for most Table B toxics is consistent with the exception to the Clean Water Act's anti-backsliding requirements expressed at section 303(d)(4)(B), which allows removal of water-quality based effluent limits in attainment waters, where the receiving waters are not impaired for the constituents in question and removal of the effluent limits will not violation anti-degradation requirements. (State Water Board Orders Nos. WQO 2003-0012, WQO 2003-0009 and WQ 2001-16.)

In addition, section 402 (o) (2) (B) (i) of the Act allows a reissued permit to include less stringent limitations when "information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods), and which would have justified the application of a less stringent effluent limitation at the time of permit issuance." In these circumstances, less stringent limitations (here, the elimination of limitations) are based on new data, which were generated during the term of previous permit, and which demonstrate no reasonable potential for discharges from the facility to cause or contribute to exceedance of applicable water quality standards for these pollutants. (State Water Board Order No. WQO 2003-0012.)

2. Satisfaction of Antidegradation Policy

Provisions of the Order are consistent with applicable anti-degradation policy expressed by NPDES regulations at 40 CFR 131.12 and by State Water Board Resolution No. 68-16. Limitations and conditions of the Order ensure maintenance of the existing quality of receiving waters.

3. 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 BOD_5; TSS; settleable solids; turbidity; oil and grease; and pH. Restrictions on these pollutants are discussed in section IV. B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

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

E. Interim Effluent Limitations

The Order does not establish interim effluent limitations and schedules for compliance with final limitations. Interim limitations are authorized only in certain circumstances, when immediate compliance with newly established final water quality based limitations is not feasible. The draft permit does not include any newly established water quality based limitations; therefore, interim limitations are not applicable.

F. Land Discharge Specifications

This section of the standardized permit is not applicable to the Discharger

G. Reclamation Specifications

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

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the discharge on the receiving water. Receiving water limitations within the proposed Order generally include the receiving water limitations of the previous Order; however these limitations have been supplemented and modified to reflect all applicable and current, general water quality objectives of the Ocean Plan.

B. Groundwater

The order does not establish receiving water limitations for groundwater.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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

A. Influent Monitoring

Influent monitoring for BOD_5 and TSS is required to determine compliance with the Order's 85 percent removal requirement for those pollutants.

B. Effluent monitoring

Effluent monitoring requirements of the previous permit for Discharge Point 001 are retained in this Order.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period, and chronic toxicity testing is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. This Order retains effluent imitations for acute and chronic toxicity and monitoring requirements for acute toxicity for Discharge Point 001 from the previous permit.

D. Receiving Water Monitoring

Section III of the City of Santa Cruz's Monitoring and Reporting Program No. R3-2005-0003 requires monthly monitoring for coliform and enteroccocci organisms at six stations upcoast and downcoast from Discharge Point 001, where the combined discharges from the City of Santa Cruz and the Discharger flow into the Pacific Ocean.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D to the Order.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the

regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

The Order may be modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include appropriate conditions or limits based on newly available information, or to implement any, new State water quality objectives that are approved by the U.S. EPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order will be reopened to incorporate such limitations. This includes, without limitation, effluent limitations that are necessary because the monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a water quality objective in Table B of the California Ocean Plan.

2. Special Studies and Additional Monitoring Requirements

This section of the standardized permit does not apply.

3. Best Management Practices and Pollution Prevention

This section of the standardized permit does not apply.

4. Construction, Operation, and Maintenance Specifications

This section of the standardized permit does not apply.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids Management

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

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

USEPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not

delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not the Central Coast Water Board, will oversee compliance with 40 CFR Part 503.

b. Sanitary sewer overflow requirements

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section VI.C.5. For instance, the 24-hour reporting requirements in this Order are not included in the General Order. The Discharger must comply with both the General Order and this Order. The Discharger and public agencies that are discharging wastewater into the facility were required to obtain enrollment for regulation under the General Order by December 1, 2006.

6. Other Special Provisions

The Order does not address discharges of storm water from the treatment and disposal site, except to require coverage by and compliance with applicable provisions of General Permit No. CAS000001 - *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.*

7. Compliance Schedules

The Order does not establish interim effluent limitations and schedules of compliance with final limitations

VIII. PUBLIC PARTICIPATION

The Central Coast Regional Water Quality Control Board considered the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the City of Scotts Valley wastewater treatment facility. As a step in the WDR adoption process, the Central Coast Water Board staff developed tentative WDRs. The Central Coast Water Board encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Central Coast Water Board notified the Discharger and interested agencies and persons by letter **dated June 26, 2007**, of its intent to prescribe waste discharge requirements for the discharge and provided them with an opportunity to submit their written comments and recommendations. Notification was also provided by the Discharger via a public notice published on July 2, 2007 in the Santa Cruz Sentinel and posted in the Santa Cruz post office.

B. Written Comments

Interested persons were invited to submit written comments concerning these tentative WDRs. Comments were to be submitted either in person or by mail to the Executive Officer at the Regional Water Board at the address above on the cover page of this Order, by August 10, 2007.

The City of Scotts Valley submitted a timely letter with suggestions for minor changes. Staff incorporated all of the suggested changes into this order.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **September 7, 2007**
Time: **8:30 a.m.**
Location: **Office of Central Coast Waterboard**
895 Aerovista Pace, Suite 101
San Luis Obispo, CA, 93401

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is **www.waterboards.ca.gov/centralcoast** where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling **805-549-3147.**

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to **Michael Higgins at 805-542-4649 (mhiggins@waterboards.ca.gov)** or John Robertson at (805) 542-4630.