

California Regional Water Quality Control Board

Central Coast Region



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Arnold Schwarzenegger Governor

ORDER NO. RB3-2008-0016 NPDES NO. CA0048216

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF WATSONVILLE 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 Watsonville				
Name of Facility City of Watsonville Wastewater Treatment Facility					
	401 Panabaker Lane				
Facility Address	Watsonville, CA 95076				
. •	Santa Cruz County				

This Order's waste discharge requirements apply to discharges by the City of Watsonville Wastewater Treatment Facility from the discharge point identified below.

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Secondary Treated Wastewater and Brine Wastes	. 35.°, 50 ′, 44." N	121 °, 49 ′, 59 ″ W	Pacific Ocean (Monterey Bay)

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	May 9, 2008
This Order shall become effective on:	May 9, 2008
This Order shall expire on:	May 9, 2008
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:	October 14, 2013

IT IS HEREBY ORDERED, that Order No. R3-2003-0040 is rescinded upon the effective date of this Order, except for enforcement purposes, and, to meet the provisions contained in division 7 of the California Water Code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.

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I. FACILITY INFORMATION

The following Discharger is subject to this Order's waste discharge requirements.

Table 4. Facility Information

Discharger	City of Watsonville
Name of Facility	City of Watsonville Wastewater Treatment Facility
Facility Address	401 Panabaker Lane
, admiry , tau. doc	Watsonville, CA 95076
	Santa Cruz County
Facility Contact, Title, and Phone	Kevin Silviera, Manager, (831) 768-3175
Mailing Address	P.O. Box 50000, Watsonville, CA 95077-5000
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	12 million gallons per day (MGD) (average dry weather flow) 36 MGD (peak wet weather flow)

II. FINDINGS

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

A. Background. The Discharger currently discharges waste pursuant to Order No. R3-2003-0040 and National Pollutant Discharge Elimination System (NPDES) Permit No.CA0048216. The Discharger submitted a Report of Waste Discharge, dated November 6, 2007, and applied to renew its NPDES permit to discharge up to 12 MGD of treated wastewater from the City's Wastewater Treatment Facility to the Pacific Ocean. The application was deemed complete on November 6, 2007.

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

B. Facility Description. The Discharger owns and operates a wastewater collection, treatment, and disposal system which provides sewerage service for the City of Watsonville, Santa Cruz County Freedom Sanitation District, Santa Cruz County Salsipuedes Sanitary District, and Monterey County Pajaro Sanitation District, serving a population of approximately 61,000. The collection system encompasses 21 square miles and includes more than 170 miles of sanitary sewer lines tributary to the treatment facility. The wastewater treatment facility effluent is discharged through a 7,350-foot outfall/diffuser system to Monterey Bay and the Pacific Ocean.

The Watsonville Wastewater Treatment Facility currently treats the wastewater by screening, pre-aeration / grit removal, primary sedimentation, biological tower trickling filters, odor control, solids contact stabilization (activated sludge), and secondary clarification. Biosolids are processed by gravity thickening, anaerobic digestion, then belt filter press dewatering, and are ultimately land-applied. Methane gas produced by anaerobic digestion is used for fuel at the treatment facility.

Discharge from the Discharger's Wastewater Treatment Facility occurs through a 7,350 foot outfall/diffuser system, which terminates in Monterey Bay in approximately 64 feet of water.

A Recycled Water Facility is currently under construction at the existing Watsonville Wastewater Treatment Facility to produce disinfected tertiary recycled water. The City of Watsonville and the Pajaro Valley Water Management Agency will jointly implement the Watsonville Area Recycling Project, which, in 2008, will begin providing reclaimed wastewater for regional irrigation use, thereby reducing dependence on overdrafted groundwater.

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

- D. Background and Rationale for Requirements. The Regional Water Board developed this Order's requirements based on information submitted in the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the Order's waste discharge requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E are also incorporated into this Order.
- E. California Environmental Quality Act (CEQA). Pursuant to Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code sections 21100-21177.
- F. Technology-Based Effluent Limitations. CWA Section 301 (b) and USEPA's NPDES regulations at 40 CFR 122.44 require that permits include, at a minimum, conditions meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards established at 40 CFR 133 and Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. The Fact Sheet (Attachment F) includes a detailed discussion of the development of technology-based effluent limitations.
- G. Water Quality-Based Effluent Limitations. CWA Section 301 (b) and NPDES regulations at 40 CFR 122.44(d) require permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.
 - NPDES regulations at 40 CFR 122.44 (d)(1)(i) require permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential is established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: either (1) USEPA criteria guidance under CWA section 304 (a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided at 40 CFR 122.44 (d)(1)(vi).
- H. Water Quality Control Plans. The Regional Water Board adopted the Water Quality Control Plan for the Central Coast Region (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains programs and policies to achieve the Region's water quality objectives. To address ocean waters, the Basin Plan incorporates by reference the Water Quality Control Plan for Ocean Waters of California (the Ocean Plan).

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

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provides beneficial uses established in the Basin Plan for coastal waters between Soquel Point and the Salinas River.

Table 5. Basin Plan Beneficial Uses for the Pacific Ocean

Discharge Point	Receiving Water	Beneficial Use(s)	
001	Pacific Ocean (Monterey Bay)	 Water Contact and Non-Contact Recreation Industrial Service Supply Navigation Shellfish Harvesting Commercial and Sport Fishing Marine Habitat Rare, Threatened, or Endangered Species Wildlife Habitat 	

To protect the beneficial uses, the Basin Plan establishes water quality objectives and implementation programs. This Order's requirements implement the Basin Plan.

I. California Ocean Plan

The State Water Board adopted the Water Quality Control Plan for the 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 applies, in its entirety, to point source discharges to the Pacific Ocean. The Ocean Plan identifies the following beneficial uses of State ocean waters.

Table 6. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean (Monterey Bay)	 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 Migration Fish Spawning and Shellfish Harvesting

To protect beneficial uses the Ocean Plan establishes water quality objectives and implementation programs to achieve and maintain those objectives. This Order's requirements implement the Ocean Plan.

J. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000), codified at 40 CFR 131.21] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to

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USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

K. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. As discussed in section IV. B of the Fact Sheet, the Order establishes technology-based effluent limitations for biochemical oxygen demand (BOD₅), carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), settleable solids, oil and grease, turbidity, and pH for Discharge Point 001. These technology-based limitations implement the minimum applicable federal technology-based requirements. The Order also contains effluent limitations in addition to the minimum federal technology-based requirements necessary to meet applicable water quality standards. These limitations are not more stringent than required by the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. The water quality objectives and beneficial uses implemented by this Order are contained in the Basin Plan and the 2005 Ocean Plan, which was approved by USEPA on February 14, 2006. These water quality objectives and beneficial uses are the applicable water quality standards pursuant to 40 CFR 131.21 (c)1) and have been approved pursuant to federal law. WQBELs for toxic pollutants are derived using procedures established by the Ocean Plan.

All beneficial uses and water quality objectives contained in the Basin Plan and Ocean 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 40 CFR 131.21 (c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

- L. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The 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 provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- M. Anti-Backsliding Requirements. CWA Sections 402 (o)(2) and 303 (d)(4) and NPDES regulations at 40 CFR 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. As discussed in the Fact Sheet, effluent limitations and other requirements established by this Order satisfy applicable anti-backsliding provisions of the CWA and NPDES regulations.

- N. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of State and federal law regarding threatened and endangered species.
- O. Monitoring and Reporting. NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.
- P. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with NPDES regulations at 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The 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.
- Q. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B, IV.C, and V.B of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- R. Notification of Interested Parties. The Regional 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 accompanying this Order.
- S. 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

- A. Discharge of treated wastewater to the Pacific Ocean at a location other than as described by this Order at 36° 50′ 44″ N. Latitude, 121° 49′ 59″ W. Longitude is prohibited.
- **B.** Discharge of any waste in any manner other than as described by this Order, excluding storm water regulated by General Permit No. CAS000001 (Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities), and excluding the reuse of treated wastewater in accordance with California Water Code

sections 13500 – 13577 (Water Reclamation) and California Code of Regulations title 22, sections 60301 – 60357 (Water Recycling Criteria), is prohibited.

- C. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
- D. Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited.
- E. The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I. G (Bypass), is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

- 1. Final Effluent Limitations Discharge Point 001
 - a. Conventional Pollutants. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP.

Table 7. Effluent Limitations for Conventional Pollutants

able 7. Effluent Limitation		Effluent Limitations				
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily		
BOD ₅ ^[1]	mg/L	30	45	90		
BOD5	lbs/day [2]	3,000	4,500	9,000		
CBOD ₅ ^[1]	mg/L	25	40	75		
CBOD5	lbs/day [2]	2,500	4,000	7,500		
T00	mg/L	30	45	90		
TSS	lbs/day [2]	3,000	4,500	9,000		
Oil 9 Croops	mg/L	25	40	75		
Oil & Grease	lbs/day	2,500	4,000	7,500		
O-Washin Solids	mL/L/hr	1.0	1.5	3.0		
Settleable Solids	NTUs	75	100	225		
Turbidity pH ^[3]	pH units	6.0 – 9.0 at all times				
Total Coliform Bacteria [4],[5]	mpn/100 mL	84,000 ^[6]	N/A	840,000		
Total Collorni Bacteria	mpn/100 mL	16,800 ^[6]	N/A	33,600		
Fecal Coliform Bacteria [4],[5] Enterococcus Bacteria [4],[5]	mpn/100 mL	2,940 [6]	N/A	8,740		

Following approval by the Executive Officer, the CBOD₅ effluent limit may be substituted for the BOD₅ effluent limit.

Note: 40 CFR 401.17(2)(c) notes that, for the purposes of 40 CFR 401.17, "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." The State Board may adjust the requirements set forth in paragraph 40 CFR 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

- [4] Bacterial effluent limits apply if the Executive Officer concludes from receiving water monitoring that the discharge consistently exceeds the bacteriological single sample maximum (SSM) standards contained within section V.A.1 of the Order. See Table E-3 for associated monitoring requirements.
- Bacterial effluent limits are based on the existing dilution ratio of 84:1, and apply after the last treatment process, including chlorination/dechlorination and at a measurable location before contact with receiving waters.
- Based on geometric mean of the 5 most recent samples in any 30-day period.

^[2] Mass limitations are applicable when flows are equal to or less than 12 MGD.

Excursions from the effluent limit range are permitted subject to the following limitations (40 CFR Section 401.17):

a. The total time during which the pH values are outside the required range of pH values 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.

b. Toxic Pollutants. The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, as described in the attached MRP.

Table 8. Effluent Limitations for Toxic Pollutants

fluent Limitations for	Unit	6-Month Median	Daily Maximum	Instantaneous Maximum				
		85	340	850				
Cadmium	µg/L	8.5	34	85				
- 11	lb/day	170	680	1,700				
Chromium (+6) [1]	μg/L	17	68	170				
	lb/day	87	852	2,382				
Copper	μg/L lb/day	8.7	85	238				
	µg/L	170	680	1,700				
.ead	lb/day	17	68	170				
	µg/L	3.4	14	34				
Mercury	ib/day	0.34	1.4	3.4				
	µg/L	425	1,700	4,250				
Nickel	ib/day	42.5	170	425				
	µg/L.	1,275	5,100	12,750				
Selenium	lb/day	128	510	1,275				
	µg/L	46	225	582				
Silver	lb/day	4.6	22.5	58.2				
[2]	µg/L.	85	340	850				
Cyanide ^[2]	Ib/day	8.5	34	85				
- Land Collegian	µg/L	170	680	5,100				
Total Residual Chlorine	lb/day	17	68	510				
	µg/L	51,000	204,000	510,000				
Ammonia (as N)	lb/day	5,100	20,400	51,000				
	TUa		2.8					
Acute Toxicity*	TUc		85					
Chronic Toxicity*	µg/L	2,550	10,200	25,500				
Phenolic Compounds (non-chlorinated)	lb/day	255	1,020	2,550				
Chlorinated Phenolics	µg/L	85	340	850				
Chlorinated Priendics	lb/day	8.5	34	85				
- 16-n	µg/L	0.77	1.53	2.30				
Endosulfan	lb/day	0.077	0.153	0.230				
	µg/L	0.17	0.34	0.51				
Endrin	lb/day	0.017	0.034	0.051				
	µg/L	0.34	0.68	1.0				
HCH*	lhiday	0.034	0.068	0.10				
Radioactivity	Not to e 5, Subcl Californ	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.						

Effluent Limitations for the Protection of Human Health - (Non-Carcinogens)

Pollutant	Unit	alth - (Non-Carcinogens 30-day Average
Acrolein	μg/L	18,700
ACI OTEM	lb/day	1,870
Antimony	µg/L	102,000
Ariamony	lb/day	10,200
Bis(2-Chloroethoxy)Methane	μg/L	374
Bis(2-Office Celloxy). Motification	lb/day	37.4
Bis(2-Chloroisopropyl)Ether	μg/L	102,000
3/3(2 0///0/0/000)// = 1/0/	lb/day	10,200
Chlorobenzene	µg/L	48,500
Chiloroperizone	lb/day	4,850
Chromium (+3)	µg/L	16,200,000
Chiomidia (13)	lb/day	1,620,000
Di-n-Butyl Phthalate	µg/L	298,000
DITI Saty I Taranata	lb/day	29,800
Dichlorobenzenes*	µg/L	434,000
Diction openzones	lb/day	43,400
Diethyl Phthalate	μg/L	2,810,000
Dietry Filmalate	lb/day	281,000
Dimethyl Phthalate	μg/L	69,700,000
Difficulty Fritingiaco	lb/day	6,980,000
4,6-Dinitro-2-methylphenol	μg/L	18,700
4,0-Dimito-2-metryphonor	lb/day	1,870
2,4-Dinitrophenol	µg/L	340
Z,4-Diffitiophenoi	lb/day	34.0
Ethylbenzene	μg/L	349,000
Laryiderizerie	lb/day	34,900
Fluoranthene	μg/L	1,280
Fluorantitiene	lb/day	128
Hexachlorocyclopentadiene	µg/L	4,930
Hexacilioi obybioportadione	lb/day	493
Nitrobenzene	μg/L	417
[410.006.120.10	lb/day	41.7
Thallium	μg/L	170
THERETI	lb/day	17.0
Toluene	μg/L	7,230,000
- Lolughe	lb/day	723,000
Tributylin	μg/L	0.119
Tributyiii	lb/day	0.0119
1,1,1-Trichloroethane	μg/L	45,900,000
1, 1, 1-1110111010000110110	₁ lb/day	4,590,000

Effluent Limitations for the Protection of Human Health - (Carcinogens)

Pollutant	Unit	30-day Average
Acrylonitrile	μg/L	8.50
	lb/day	0.851
Aldrin	μg/L	0.00187
	lb/day	0.000187
Benzene	µg/L	502
	lb/day	50.2
Benzidine	μg/L	0.00587
	lb/day	0.000587
Beryllium	µg/L	2.81
	lb/day	0.281
Bis(2-chloroethyl) ether	μg/L	3.83
	lb/day	0.383
Carbon Tetrachloride	μg/L	76.5
	lb/day	7.66
Chlordane*	μg/L	0.00196
	lb/day	0.000196
Chlorodibromomethane	μg/L	731
	lb/day	73.2
Chloroform	μg/L	11,000
	lb/day	1,100
DDT*	μg/L	0.01445
	lb/day	0.001445
3,3-Dichlorobenzidine	μg/L	0.689
	lb/day	0.0689
1,2-Dichloroethane	μg/L	2,380
	lb/day	238
1,1-Dichloroethylene	μg/L	76.5
	lb/day	7.66
Dichlorobromomethane	μg/L	527
	lb/day	52.7
Dichloromethane	μg/L	38,300
	lb/day	3,830
1,3-Dichloropropene	μg/L	757
· · · · · · · · · · · · · · · · · · ·	lb/day	75.7
Dieldrin	µg/L	0.00340
	lb/day	0.000340
2,4-Dinitrotoluene	μg/L	221
- 	lb/day	22.1
1,2-Diphenylhydrazine	μg/L	13.6
	lb/day	1.36
Halomethanes*	μg/L	11,100
	lb/day	1,110

Pollutant	Unit	30-day Average
Heptachlor	μg/L	0.00425
	lb/day	0.000425
Heptachlor Epoxide	μg/L	0.00170
	lb/day	0.000170
Hexachlorobenzene	μg/L	0.0179
	lb/day	0.00179
Hexachlorobutadiene	μg/L	1,190
	lb/day	119
Hexachloroethane	µg/L	213
	lb/day	21.3
Isophorone	µg/L	62,100
Isophorone	lb/day	6,210
N-nitrosodimethylamine	µg/L	621
14-mii 050diineu iylaniine	lb/day	62.1
N-nitrosdi-N-propylamine	µg/L	32.3
	lb/day	3.23
N-nitrosodiphenylamine	µg/L	213
TV Thirococipitoriyica	lb/day	21.3
PAHs*	μg/L	0.748
	lb/day	0.0749
PCBs*	μg/L	0.00162
	lb/day	0.000162
TCDD Equivalents*	μg/L	0.000000332
	lb/day	0.000000332
1,1,2,2-Tetrachloroethane	μg/L	196
1, 1,2,2-161100110106110110	lb/day	19.6
Tetrachloroethylene	μg/L	170
	lb/day	17.0
Toxaphene	μg/L	0.0179
	lb/day	0.00179
Trichloroethylene	µg/L	2,300
TUCHIOLOGUTYICHE	lb/day	230
1,1,2-Trichloroethane	µg/L	799
1,1,2-Hichoroethane	lb/day	80.0
2,4,6-Trichlorophenol	µg/L	24.7
2,4,0-Trichiorophenoi	lb/day	2.47
Vinyl Chloride	μg/L	3,060
	lb/day	306

See Attachment A for applicable definitions.

^[1] Dischargers may, at their option, meet this limitation as a total chromium objective.

If a Discharger can demonstrate to the satisfaction of the Regional Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide,

- simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR 136, as revised May 14, 1999.
- Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined using the following equation:
 - logy=-0.43(logx)+1.8 where: y = the water quality objective (in) 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.
- The Discharger is not required to disinfect secondary effluent due to treatment system performance and outfall configuration and placement. The total chlorine residual effluent limitations are established by this Order in the event the Discharger implements chlorine based disinfection in the future.
- c. Percent Removal: The average monthly percent removal of BOD₅, CBOD₅ and TSS shall not be less than 85 percent.
- d. Initial Dilution: The minimum initial dilution of treated effluent at the point of discharge to Monterey Bay shall not be less than 84 to 1 (seawater to effluent) at any time.
- e. Dry Weather Flow: Effluent daily dry weather flow shall not exceed a monthly average of 12 MGD.

2. Interim Effluent Limitations - Discharge Point 001

This section of the standardized permit is not applicable to the City of Watsonville Treatment Facility.

B. Land Discharge Specifications

This section of the standardized permit is not applicable to the City of Watsonville Treatment Facility.

C. Reclamation Specifications

The Discharger shall comply with applicable state and local requirements regarding the production and use of reclaimed wastewater, including requirements of California Water Code (CWC) sections 13500 – 13577 (Water Reclamation) and Department of Health Services regulations at title 22, sections 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria).

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The following receiving water limitations are based on water quality objectives (Water-Contact Standards) contained in the Ocean Plan and are a required part of this Order. Compliance shall be determined from samples collected at stations representative of the area as defined below.

- 1. 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 designated for water contact recreation use by the Regional Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.
 - 30-Day Geometric Mean The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.
 - a. Total coliform density shall not exceed 1,000 per 100 ml;
 - b. Fecal coliform density shall not exceed 200 per 100 mL; and
 - c. Enterococcus density shall not exceed 35 per 100 mL.

Single Sample maximum¹;

- a. Total coliform density shall not exceed 10,000 per 100 ml;
- b. Fecal coliform density shall not exceed 400 per 100 mL; and
- c. Enterococcus density shall not exceed 104 per 100 mL.
- d. Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1
- 2. At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacteriological objectives shall be maintained throughout the water column:
 - a. The median total coliform density shall not exceed 70 organisms per 100 mLs, and in not more than 10 percent of samples shall coliform density exceed 230 organisms per 100 mLs.
- 3. Floating particulates and grease and oil shall not be visible.
- 4. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- 5. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
- 6. 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.
- 7. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygendemanding waste.

See paragraph VI.C.2.b. Water-Contact Monitoring (Bacterial Characteristics) and Table E-6 Bacteria Monitoring Schedule of the Monitoring and Reporting Program for accelerated monitoring when exceedances occur for of single sample maximum (SSM) bacterial surface water limitations.

- 8. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
- 9. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- 10. The concentration of substances set forth in Chapter IV, Table B of the Ocean Plan in marine sediments shall not be increased to levels that would degrade indigenous biota.
- 11. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.
- 12. Nutrient levels shall not cause objectionable aquatic growths or degrade indigenous biota.
- 13. Discharges shall not cause exceedances of water quality objectives for ocean waters of the State established in Table B of the Ocean Plan.
- 14. Marine communities, including vertebrate, invertebrate and plant species, shall not be degraded.
- 15. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- 16. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.
- 17. Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations

Activities at the facility shall not cause exceedance/deviation from the following water quality objectives for groundwater established by the Basin Plan.

- 1. Ground water shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.
- 2. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

VI. PROVISIONS

A. Standard Provisions

- 1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
- 2. The Discharger shall comply with the following provisions:

Before changing the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of an inland watercourse, in any way, the Discharger shall file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Water Code section 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order. All monitoring shall be conducted according to 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

C. Special Provisions

1. Reopener Provisions

This permit may be reopened and modified in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA-approved, new State 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 by Section IV of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan.

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

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

- i. Actions proposed to investigate/identify the causes/sources of toxicity,
- ii. Actions proposed to mitigate the discharge's adverse effects, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken), and
- iii. A schedule to implement these actions.

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

Table 9. Toxicity Reduction Evaluation—Schedule

able 9. Toxicity Reduction Evaluation Action Step	Wilen Kedanca
Take all reasonable measures necessary to immediately reduce toxicity, where the source	Within 24 hours of identification of noncompliance.
is known. Initiate the TRE in accordance to the Workplan.	Within 7 days of notification by the EO
Conduct the TRE following the procedures in the Workplan.	Within the period specified in the Workplan (not to exceed one year, without an approved Workplan)
Submit the results of the TRE, including summary of findings, required corrective action,	Within 60 days of completion of the TRE
and all results and data. Implement corrective actions to meet Permit limits and conditions.	To be determined by the EO

b. Water-Contact Monitoring (Bacterial Assessment)

If a single receiving water sample exceeds any of the bacteriological single sample maximum (SSM) standards contained within section V.A.1 of this Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued daily until the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities.

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

This requirement to conduct repeat monitoring, and a sanitary survey when appropriate, is also established by Table E-6 of the Monitoring and Reporting Program.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The 2005 California Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order, no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. The Central Coast Water Board will notify the Discharger in writing if such a program becomes necessary. The 2005 Ocean Plan PMP language is included herein to provide guidance in the event that a PMP must be developed and implemented by the Discharger.

PMP Goal: The PMP goal is to reduce all potential pollutant sources through pollutant minimization (control) strategies, including pollution prevention measures, to maintain pollutant effluent concentrations at or below the effluent limitation.

Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence of impairment of beneficial uses. The completion and implementation of a Pollution Prevention Plan, required in accordance with California Water Code Section 13263.3 (d), will fulfill the PMP requirements.

Determining the Need for a PMP:

- The Discharger must develop and conduct a PMP if all of the following conditions are true:
 - (a) The calculated effluent limitation is less than the reported Minimum Level.
 - (b) The concentration of the pollutant is reported as DNQ.
 - (c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
- 2. Alternatively, the Discharger must develop and conduct a PMP if all of the following conditions are true:
 - (a) The calculated effluent limitation is less than the Method Detection Limit (MDL).
 - (b) The concentration of the pollutant is reported as ND.
 - (c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

Special Provision for Evidence of Pollutant Presence

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

- 1. Health advisories for fish consumption;
- 2. Presence of whole effluent toxicity;
- 3. Results of benthic or aquatic organism tissue sampling;
- 4. Sample results from analytical methods more sensitive than methods included in the permit (in accordance with the 2005 Ocean Plan, Chapter III, Section C.4.b, Deviations from Minimum Levels.in Appendix II; or
- 5. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

Elements of a PMP

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

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

4. Construction, Operation and Maintenance Specifications

This section of the standardized permit is not applicable to the City of Watsonville Treatment Facility.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids Management. The handling, management, and disposal of sludge and solids derived from wastewater treatment must comply with applicable provisions of U.S. EPA regulations at 40 CFR 257, 258, 501, and 503, including all monitoring, record keeping, and reporting requirements.

Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination. Sites for solids and sludge treatment and storage shall have adequate facilities to divert surface water runoff from adjacent areas to protect the boundaries of such sites from erosion, and to prevent drainage from treatment and storage sites.

The treatment, storage, disposal, or reuse of sewage sludge and solids 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 into waters of the State. The Discharger is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with the above rules, whether the Discharger uses or disposes of the biosolids itself, or transfers them to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must adhere to under these rules.

b. Pretreatment. The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 CFR 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the USEPA, or other appropriate parties, as provided in the CWA, as amended (33 USA 1351 et seq.). The Discharger shall implement and enforce its Approved Publicly Owned Treatment Works (POTW) Pretreatment Program. Implementation of the Discharger's Approved POTW Pretreatment Program is hereby made an enforceable condition of this permit. USEPA may initiate enforcement action against an industrial user for non-compliance with applicable standards and requirements as provided in the CWA.

The Discharger shall enforce the requirements promulgated under Sections 307 (b), (c), & (d) and 402 (b) of the CWA. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

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

- i. Implement necessary legal authorities as provided in 40 CFR 403.8 (f)(1);
- ii. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
- iii. Implement the programmatic functions as provided in 40 CFR 403.8 (f)(2); and,

iv. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8 (f)(3).

The Discharger shall submit annually a report to the USEPA - Region 9, the Regional Water Board, and the State Water Board describing the Discharger's pretreatment activities over the previous twelve months. If the Discharger violates this Order's pretreatment conditions or requirements, it shall also include reasons for non-compliance, and a statement how and when it shall comply. This annual report is due by January 31 of each year and shall contain, but not be limited to, the contents described in the "Pretreatment Reporting Requirements" contained in the Monitoring and Reporting Program No. R3-2008-0008.

The Discharger shall comply, and ensure affected "indirect dischargers" comply with Paragraph No. II.D.1 of the "Standard Provisions and Reporting Requirements".

6. 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 Order, 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 Order is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and adverse effects of sanitary sewer overflows. If applicable, the Discharger shall seek coverage under the General Order and comply with its requirements.

7. Compliance Schedules

This section of the standardized permit does not apply to the City of Watsonville Treatment Facility.

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

ATTACHMENT A - DEFINITIONS

Acute Toxicity:

a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

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

b. Lethal Concentration 50% (LC 50)

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

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

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

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

Areas of Special Biological Significance (ASBS): 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.

Chiordane shall mean the sum of chiordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachior-alpha, nonachior-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 <u>Macrocystis</u> and <u>Nereocystis</u>. Kelp beds include the total foliage canopy of <u>Macrocystis</u> and <u>Nereocystis</u> 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 40 CFR 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.

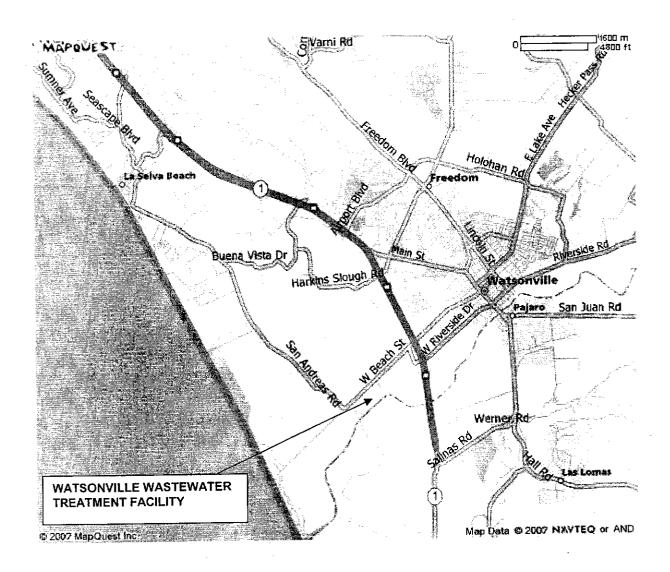
Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

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.)

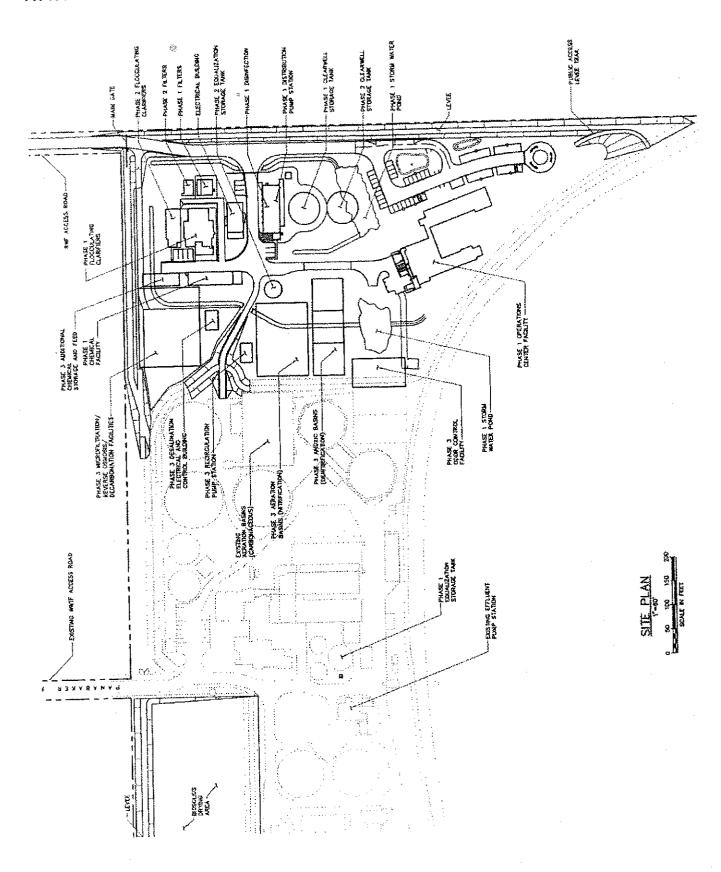
Waste: As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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); Water 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 (24hour 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(I)(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 40 CFR 136 or, in the case of sludge use or disposal, approved under 40 CFR 136 unless otherwise specified in 40 CFR 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 40 CFR 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(I)(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(I)(4)(i)].
- c. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR 136 or, in the case of sludge use or disposal, approved under 40 CFR 136 unless otherwise specified in 40 CFR 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(I)(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(I)(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(I)(6)(i)].
- b. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR 122.41(I)(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(I)(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(I)(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(I)(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(I)(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(I)(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(I)(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(I)(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(I)(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 (μ g/L) [40 CFR 122.42(a)(1)(i)];
 - ii. 200 μ g/L for acrolein and acrylonitrile; 500 μ g/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)]:
 - 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 Subpart D of 40 CFR 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:
 - Data results remain consistent with results of samples analyzed by the Central Coast Water Board;
 - 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" with designated major discharges shall submit a copy of each document to:

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

- 6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing "Discharger" and proposed "Discharger" containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision Permit Action IB.3.
- 7. Except for data determined to be confidential under Section 308 of the Clean Water Act (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the

Central Coast Water Board or Regional Administrator of EPA. Please also see Federal Standard Provision – Records 1.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 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: (I) 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 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:

$$Log Mean = (C1 \times C2 \times ... \times Cn)1/n$$

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

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

mass emission rate (lbs/day) = $8.34 \times Q \times C$; 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

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

$$C_{\text{Effluent}}$$
 Removal Efficiency (%) = 100 x (I - 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;
 - 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 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions I.E.5.).
- 24. "Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Resources Control Board.

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

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ATTACHMENT E - MONITORING AND REPORTING PROGRAM (MRP)

NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

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 must include quality assurance/quality control data with their reports.
- **B.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Regional Water Board.
- C. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.
 - 1. A Guide to Methods and Standards for the Measurement of Water Flow, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
 - Water Measurement Manual, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
 - Flow Measurement in Open Channels and Closed Conduits, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
 - 4. NPDES Compliance Sampling Manual, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

- D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR 136, Guidelines Establishing Test Procedures for Analysis of Pollutants. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005). Analyses for toxics listed in Table B of the California Ocean Plan (2005) shall adhere to guidance and requirements contained in that document.

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 E-1. Monitoring Station Locations

Discharge Point	Monitoring Location Name	Monitoring Location Description
	INF-001	Influent wastewater prior to treatment and following all significant inputs to the collection system or to the headworks of untreated wastewater (excluding brine wastes), upstream of any in-plant return flows, where representative samples of wastewater influent can be obtained.
001	Location where representative sample of effluent, which include component of brine waste, discharged through the ocean outfluence.	
	Α	2,000 meters north of the outfall and 1,000 feet offshore
	В.	1,500 meters north of the outfall and 1,000 feet offshore
	С	300 meters north of the outfall and 1,000 feet offshore
	D	Adjacent to the outfall and 1,000 feet offshore
	Ē	300 meters south of the outfall and 1,000 feet offshore
	F	1,500 meters south of the outfall and 1,000 feet offshore
	G	2,000 meters south of the outfall and 1,000 feet offshore
BIO-001		The last point in the biosolids handling process where representative samples of residual solids from the treatment process can be obtained.

Attachment E – MRP E-3

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF - 001

1. The Discharger shall monitor influent to the facility at Monitoring Location INF – 001 in accordance with the following schedule.

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MGD	Metered	Daily
Instantaneous Max Flow	MGD	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
Mean Daily pH	pH units	Metered	Daily
Maximum Daily pH	pH units	Metered	Daily
Minimum Daily pH	pH units	Metered	Daily
BOD ₅ ^[1]	mg/L	24-hr Composite	Weekly
TSS	mg/L	24-hr Composite	Weekly
Ocean Plan Table B Pollutants	Per Table B	24-hr Composite [2]	Annually (August)

Following approval by the Executive Officer, the CBOD₅ parameter may be substituted for the BOD₅ parameter.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF - 001

1. The Discharger shall monitor effluent at Monitoring Location ${\sf EFF}-001$ in accordance with the following schedule.

Table E-3. Effluent Monitoring at EFF - 001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Daily Flow	MGD	Metered	Daily
Instantaneous Flow	MGD	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
рН	pH units	Metered	Weekly
Total & Fecal Coliform Bacteria	MPN/100mL	Grab	Weekly [1]
Enterococci Bacteria	MPN/100mL	Grab	Weekly [1]
Temperature	°F		Weekly
BOD ₅ ^[6]	mg/L	24-hr Composite	Weekly
TSS	mg/L	24-hr Composite	Weekly
Settleable Solids	mL/L/hr	Grab	Weekly
Chlorine Residual [7]	mg/L	Continuous	Daily

The Discharger shall use the high volume water sampling (HVWS) method employed by the CCLEAN program to monitor the Table B pollutants and other pollutants, when appropriate, if the analytical methods used comply with 40 CFR 136 or as allowed by the Implementation Provisions for Table B contained in section III.C.5.b of the Ocean Plan.

Turbidity	NTUs	Grab	Monthly
Oil and Grease	mg/L	Grab	Monthly
Ammonia	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Urea	mg/L	Grab	Monthly
Silicate	mg/L	Grab	Monthly
Acute Toxicity [2]	TUa	Grab	Semiannually [3]
Chronic Toxicity [2]	TUc	Grab	Semiannually [3]
Ocean Plan Table B Pollutants [4]	μg/L	24-hr composite [5]	Semiannually [3]
Remaining Priority pollutants [4]	μg/L	24-hr composite [5]	Semiannually [3]

Bacteria monitoring of effluent samples is required if the Executive Officer concludes from receiving water monitoring that the discharge consistently exceeds the bacteriological single sample maximum (SSM) standards as described in section V.A.1 of the Order.

- Whole effluent, acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V. of this Monitoring and Reporting Program.
- Monitoring for the Ocean Plan (2005) Table B pollutants and whole effluent acute and chronic toxicity shall be conducted semiannually each year, one time in a period of high effluent flow (little or no reclamation use) and one time during a period of low effluent flow (high reclamation use of treated wastewater).
- Procedures, calibration techniques, and instrument/reagent specifications shall conform to 40 CFR 136 and applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall instruct its analytical laboratory to establish calibration standards so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table B; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML. In addition, data must comply with QA/QC requirements of 40 CFR 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR 136.
- The Discharger shall utilize high volume water sampling (HVWS) methods employed by the CCLEAN program for compliance determination of the Table B pollutants and the implementation of all other pollutant monitoring requirements contained within this Order, when appropriate, given the subsequent analytical methods are in accordance with 40 CFR 136 or are allowed by the Implementation Provisions for Table B in Ocean Plan section III.C.5.b.
- Following approval by the Executive Officer, the CBOD₅ parameter may be substituted for the BOD₅ parameter.
- The Discharger is not required to disinfect effluent prior to discharge and currently does not do so. The chlorine monitoring requirement shall become effective only if the Discharger chlorinates effluent prior to discharge. If applicable, the discharger shall record the highest measured value daily.

TABLE E-4: Effluent Monitoring of Remaining Priority Pollutants

Volatile Organic Compounds
Bromoform
Chloroethane
2-Chloroethyl Vinyl Ether
1,1-Dichloroethane
Trans-1,2-Dichloro-Ethylene
1,2-Dichloropropane
1,3-Dichloro-Propylene
Methyl Bromide
Methyl Chloride
Methylene Chloride
Acid Extractable Compounds

2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 4,6-Dinitro-O-Cresol 2-Nitrophenol 4-Nitrophenol Pentachlorophenol Phenol Base-Neutral Compounds Acenaphthene Acenaphthylene Anthracene Benzo (A Anthracene Benzo (A) Pyrene 3,4-Benzo-Fluoranthene Benzo (ghi) Perylene Benzo (K) Fluoranthene 4-Bromophenyl Phenyl Ether Butyl Benzyl Phthalate 2-Chloronapthalene 4-Chlorophenyl Phenyl Ether Chrysene Di-N-Octyl Phthalate Dibenzo (A,H) Anthracene 1,4-Dichlorobenzene 2,6-Dinitrotoluene Fluorene Indeno (1,2,3-CD) Pyrene Naphthalene Phenanthrene Pyrene	
2,4-Dichlorophenol 2,4-Dimethylphenol 4,6-Dinitro-O-Cresol 2-Nitrophenol 4-Nitrophenol Pentachlorophenol Phenol Base-Neutral Compounds Acenaphthene Acenaphthylene Anthracene Benzo (A Anthracene Benzo (A) Pyrene 3,4-Benzo-Fluoranthene Benzo (K) Fluoranthene Benzo (K) Fluoranthene Benzo (K) Fluoranthene 4-Bromophenyl Phenyl Ether Butyl Benzyl Phthalate 2-Chloronapthalene 4-Chlorophenyl Phenyl Ether Chrysene Di-N-Octyl Phthalate Dibenzo (A,H) Anthracene 1,4-Dichlorobenzene 2,6-Dinitrotoluene Fluorene Indeno (1,2,3-CD) Pyrene Naphthalene Phenanthrene Pyrene	P-Chloro-M-Cresol
2,4-Dimethylphenol 4,6-Dinitro-O-Cresol 2-Nitrophenol 4-Nitrophenol Pentachlorophenol Phenol Base-Neutral Compounds Acenaphthene Acenaphthylene Anthracene Benzo (A Anthracene Benzo (A) Pyrene 3,4-Benzo-Fluoranthene Benzo (ghi) Perylene Benzo (K) Fluoranthene 4-Bromophenyl Phenyl Ether Butyl Benzyl Phthalate 2-Chloronapthalene 4-Chlorophenyl Phenyl Ether Chrysene Di-N-Octyl Phthalate Dibenzo (A,H) Anthracene 1,4-Dichlorobenzene 2,6-Dinitrotoluene Fluorene Indeno (1,2,3-CD) Pyrene Naphthalene Phenanthrene Pyrene	
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1,4-Dichlorobenzene 2,6-Dinitrotoluene Fluorene Indeno (1,2,3-CD) Pyrene Naphthalene Phenanthrene Pyrene	Di-N-Octyl Phthalate
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•	Phenanthrene
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.,_, .,	1,2,4,-Trichlorobenzene

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

Compliance with acute toxicity objective shall be determined using a U.S. EPA approved protocol as provided in 40 CFR 136 (*Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA Office of Water, EPA-821-R-02-012 or the latest edition).

Acute Toxicity (TUa) = 100/96-hr LC 50.

LC 50 (percent waste giving 50% survival of test organisms) shall be determined by 96-hour static or continuous flow bioassay techniques using standard marine test species as specified in EPA-821-R-02-012 and as noted in the following table.

Table E-5. Approved Test - Acute Toxicity (TUa)

Species	Scientific Name	Effect	Test Duration
shrimp	Holmesimysis costata	survival	48 or 96 hours
shrimp	Mysidopsis bahia	survival	48 or 96 hours
silversides	Menidia beryllina	survival	48 or 96 hours
sheepshead minnow	Cyprinodon variegatus	survival	48 or 96 hours

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

Reference toxicant test results shall be submitted with the effluent sample test results. Both tests must satisfy the test acceptability criteria specified in EPA-821-R-02-012. If the test acceptability criteria are not achieved or if toxicity is detected, the sample shall be retaken and retested within 5 days of the failed sampling event. The retest results shall be reported in accordance with EPA-821-R-02-012 (chapter on report preparation) and the results shall be attached to the next monitoring report.

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

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

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

When toxicity monitoring finds acute toxicity in the effluent above the effluent limitation established by the Order, the Discharger shall immediately resample the effluent, if the discharge is continuing, and retest for acute toxicity. Results of the initial failed test and any toxicity monitoring results subsequent to the failed test shall be reported as soon as reasonable to the Executive Officer (EO). The EO will determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation (TRE) requirements (section VI.C.2.a of the Order), or to implement other measures.

A. Chronic Toxicity

The presence of chronic toxicity shall be estimated as specified in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA-821/600/R-95/136; Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, EPA-600-4-91-003; Procedures Manual for Conducting Toxicity

Tests developed by the Marine Bioassay Project, SWRCB 1996, 96-1WQ; and/or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, EPA/600/4-87-028 or subsequent editions.

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

Chronic Toxicity (TUc) = 100/NOEL.

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

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

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

Table E-6. Approved Tests—Chronic Toxicity

Species	Test	Tier [1]	Reference [2]
Giant kelp, Macrocystis pyrifera	percent germination; germ tube length	1	a, c
Red abalone, Haliotis rufescens	abnormal shell development	1	a, c
Oyster, Crassostrea gigas; mussels, Mytilus spp.	abnormal shell development; percent survival	1	a, c
Urchin, Strongylocentrotus purpuratus; sand dollar, Dendraster excentricus	percent normal development	1	a, c
Urchin, Strongylocentrotus purpuratus; sand dollar, Dendraster excentricus	percent fertilization	1	a, c
Shrimp, Homesimysis costata	percent survival; growth	11	a, c
Shrimp, Mysidopsis bahia	percent survival; fecundity	2	b, d
Topsmelt, Atherinops affinis	larval growth rate; percent survival	1	a, c

ľ	Silverside, Menidia beryllina	larval growth rate; percent	2	b, d	
ı		survival			

- First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second tier test method following approval by the Regional Water Board.
- ^[2] Protocol References:
 - a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. U.S. EPA Report No. EPA/600/R-95/136.
 - b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms. U.S. EPA Report No. EPA-600-4-91-003.
 - c. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay .Project. 96-1WQ.
 - d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1998. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

Dilution and control waters shall be obtained from an area of the receiving waters, typically upstream, which is unaffected by the discharge. Standard dilution water can be used, if the receiving water itself exhibits toxicity or if approved by the 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.

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

For this discharge, the presence of chronic toxicity at more than 85 TUc shall trigger the Toxicity Reduction Evaluation (TRE) requirements of the Order (Section VI.C.2.a).

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 the latest edition, or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012 (2002) or subsequent editions.
- 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 of the standardized permit does not apply to the City of Watsonville Treatment Facility.

VII. RECLAMATION MONITORING REQUIREMENTS

The Discharger shall comply with applicable state and local requirements regarding the production and use of reclaimed wastewater, including requirements of California Water Code (CWC) sections 13500 – 13577 (Water Reclamation) and Department of Health Services regulations at title 22, sections 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria).

VIII. RECEIVING WATER MONITORING REQUIREMENTS - SURFACE WATER

A. Bacteria Monitoring - Monitoring Locations A thru G

Bacteria monitoring shall be conducted to assess bacteriological conditions in areas used for body contact recreation (e.g., swimming) and to assess conditions of aesthetics for general recreation use (e.g., picnicking, boating). Bacteria monitoring shall be conducted along the 30-foot contour at Monitoring Locations A thru G. Latitude and longitude shall be recorded and reported for all monitoring locations for each monitoring event. Bacteria monitoring shall be conducted as indicated by the following table.

Table E-7. Bacteria Monitoring Schedule

Parameter	Units	Sampling Station	Sampling Frequency	
Total and Fecal Coliform Bacteria	MPN/100ml	A thru G	Monthly	
Enterococcus Bacteria [1],[3],[4]	MPN/100ml	A thru G	Monthly	
Visual Monitoring [5]	Narrative	A thru G	Monthly	

- For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 2 to 16,000 MPN/100ml. The detection methods used for each analysis shall be reported with the results of the analysis.
- Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR 136, unless alternate methods have been approved in advance by US EPA pursuant to 40 CFR 136.
- Detection methods used for enterococcus shall be those presented in EPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure, or any improved method determined by the Regional Board (and approved by EPA) to be appropriate.
- [4] If a single sample exceeds any of the bacteriological single sample maximum (SSM) standards contained within section V.A.1 of the Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued daily until the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities. When repeat sampling is required because of an exceedance of any one single sample density, values from all samples collected during that 30-day period will be used to calculate the geometric mean.
- Visual monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), antecedent rainfall (7-day), sea state, and tidal conditions (e.g., high, slack, or low tide). Observations of water discoloration, floating oil and grease, turbidity, odor, material of sewage origin in the water or on the beach, and temperature (*C) shall be recorded and reported.

These requirements also satisfy the CCLEAN 30-foot contour bacteriological monitoring requirements noted in Table E-8 below.

IX. OTHER MONITORING REQUIREMENTS

A. Central Coast Long-Term Environmental Assessment Network (CCLEAN)

- 1. The Discharger shall participate in the implementation of the CCLEAN Regional Monitoring Program in order to fulfill receiving water compliance monitoring requirements and support the following CCLEAN Program objectives.
 - a. Obtain high-quality data describing the status and long-term trends in the quality of nearshore waters, sediments, and associated beneficial uses.
 - b. Determine whether nearshore waters and sediments are in compliance with the Ocean Plan.
 - c. Determine sources of contaminants to nearshore waters.
 - d. Provide legally defensible data on the effects of wastewater discharges in nearshore waters.
 - e. Develop a long-term database on trends in the quality of nearshore waters, sediments, and associated beneficial uses.
 - f. Ensure that the nearshore component database is compatible with other regional monitoring efforts and regulatory requirements.
 - g. Ensure that nearshore component data are presented in ways that are understandable and relevant to the needs of stakeholders.

The CCLEAN Quality Assurance Project Plan (QAPP) shall be revised and submitted by **July 1, 2008** to the Water Board Quality Assurance Officer for approval, and thereafter as necessary each year to reflect any program adjustments. A detailed technical study design and a description of the specific contents of the

CCLEAN Annual Report shall be provided as a component of the CCLEAN QAPP. Revisions to the QAPP to be submitted by July 1, 2008 include the following:

- 1) Detailed description of high volume water sampling (HVWS) method or methods to be employed by the CCLEAN program for compliance determination of Table B pollutants, and the implementation of all other pollutant monitoring requirements contained within this Order, as appropriate, and the basis for the choice of the selected method(s);
- 2) Identification of the specific pollutants to be sampled using HVWS,
- 3) Identification of Table B and other pollutants to be sampled using conventional grab sampling approaches (rather than HVWS), if any;
- 4) Description of analytical methods and method quality objectives (in accordance with 40 CFR 136 or as allowable per the Implementation Provisions for Table B contained in section III.C.5.b of the Ocean Plan);
- 5) Sampling design, protocols, analytical requirements and method quality objectives for a proven integrative biological method to monitor the effects of endocrine disrupting compounds; and
- 6) Sampling design, protocols, analytical requirements, and method quality objectives for a two-year screening study for polyfluorinated compounds (PFCs).

Any year-to-year modifications to the program shall be identified in the QAPP. QAPP modifications shall be made consistent with SWAMP QAPP format requirements. The QAPP will also include program components funded by other participant agencies and organizations. A detailed technical study design description, including specific location of sampling sites and a description of the specific contents of the CCLEAN Annual Report, shall be provided as a component of the CCLEAN QAPP. The QAPP will also include program components funded by other participant agencies and organizations.

General discharger components of the first phase of the CCLEAN Program are outlined in the following table.

Table E-8. CCLEAN Monitoring Requirements

Sampling Sites	Parameters Sampled at Each Site	Frequency of Sampling	Applicable Water-Quality Stressors	Program Objectives
Water Sampling				
Four outfall sites (Santa Cruz, Watsonville, Monterey, Carmel) in effluent	30-day flow proportioned samples using automated pumping equipment, high volume water sampling techniques for: 1) persistent organic pollutants including polybrominated diphenyl ethers (PBDE), and 2) single grabs for polyfluorinated compounds (PFCs).	Twice per year (wet season and dry season)	Persistent Organic Pollutants, PFCs,	d
Four outfall sites	Grab samples for ammonia, silica,	Monthly	Nutrients	d

(Santa Cruz, Watsonville, Monterey, Carmel) in effluent	orthophosphate, urea, nitrate, turbidity, suspended sediment, temperature, conductivity, and pH		Suspended Sediments	
Four outfall sites (Santa Cruz, Watsonville, Monterey, Carmel) in effluent	Integrative biological assessment of endocrine disrupting compounds	To be determined by July 1, 2008	Endocrine disrupting compounds	d
30-ft contour sites for each major discharge and sites sampled for AB 411	Grabs for total and fecal coliform, enterococcus [1]	Monthly	Pathogens	a, b, c, d
Two ambient sites in Monterey Bay	30-day time-integrated samples using automated pumping equipment, high-volume water sampling techniques for persistent organic pollutants including PBDEs; 2) single grabs for PFCs, 3) duplicate grabs of ammonia, silica, orthophosphate, urea, nitrate, turbidity, suspended sediment, fecal coliform, total coliform, enterococcus, temperature, conductivity, and ph both at deployment and pickup	Twice per year (wet season and dry season)	Persistent Organic Pollutants Nutrients Suspended Sediments Pathogen indicators PFCs	a,b,e
Sediment Sampling				
Four depositional sites and four background sites along 80-m contour	Single samples for benthic infauna, persistent organic pollutants including PBDE, total organic carbon and grain size	Annually	Persistent Organic Pollutants (and effects of)	a, b
Mussel Sampling	·			
5 rocky intertidal sites	One composite of 30-40 mussels for persistent organic pollutants including PBDE, PFCs, total and fecal coliform, and enterococcus	Annually (wet season)	Persistent Organic Pollutants Pathogens	a, b, c

If a single sample exceeds any of the bacteriological single sample maximum (SSM) standards contained within section V.A.1 of the Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued daily until the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities. When repeat sampling is required because of an exceedance of any one single sample density, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

B. Solids/Biosolids Monitoring

- 1. The following information shall be submitted with the Annual Report required by X.B.5.d, below (or Standard Provision II.C.8).
 - a. Volume of biosolids removed, % moisture, and disposal and/or reuse destination. Order or permit number (if applicable) for the biosolids destination shall also be provided.
 - b. Representative sample of biosolids removed for disposal and/or reuse shall be analyzed for the following parameters:

Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc, Total Nitrogen

- c. Biosolids shall be identified as Class A or Class B (in accordance with criteria specified at 40CFR 503). The basis for classification shall also be described.
- d. Pathogen reduction and vector attraction reduction achievement methods shall be described in adequate detail to demonstrate compliance with 40CFR 503.32.
- 2. If no biosolids are removed from the facility during the reporting period (the year), then the Discharger shall include such statement in the Annual Report required by X.B.5.d, below (or Standard Provision II.C.8).

C. Pretreatment Monitoring

At least once per year, influent, effluent and biosolids shall be sampled and analyzed for the priority pollutants identified under Section 307(a) of the Clean Water Act. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the plant's influent and effluent for those pollutants EPA has identified under Section 307(a) of the Act which are known or suspected to be discharged by industrial users. The Discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR 136. Biosolids shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The biosolids analyzed shall be a composite sample of a minimum of twelve discrete samples taken at equal time intervals over the 24-hour period.

Wastewater and biosolids sampling and analysis shall be performed a minimum of annually and not less than the frequency specified in the required monitoring program for the plant. The discharger shall also provide any influent, effluent or biosolids monitoring data for nonpriority pollutants which the discharger believes may be causing or contributing to interference, pass through or adversely impacting biosolids quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto. Biosolids samples shall be collected from the last point in solids handling before disposal. If biosolids are dried on-site, samples shall be composited from at least twelve discrete samples from twelve representative locations.

D. Outfall Inspection

At least once per year (in the same month annually) the Discharger shall visually inspect the entire outfall structure (using dye studies, if appropriate) to determine its structural integrity and identify leaks, potential leaks, or malfunctions. The outfall inspection shall also check for possible external blockage of ports by sand and/or silt deposition. Results of the outfall inspection shall be reported in the applicable Annual Report. Inspections shall occur during periods typically characterized by good underwater visibility.

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 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 E-9. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	May 9, 2008	All	Submit with monthly SMR
Hourly	May 9, 2008	Hourly	Submit with monthly SMR
Daily	May 9, 2008	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	Submit with monthly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	Submit with next monthly SMR
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	Submit with next monthly SMR

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Annually	January 1 following (or on) permit effective date	January 1 through December 31	Submit with Annual Report

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR 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, California 93401

- d. An Annual Self Monitoring Report shall be due on February 1 following each calendar year and shall include:
 - All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.
 - A discussion of any incident of non-compliance and corrective actions taken.

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 Discharge 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	State Water Resources Control Board	
Division of Water Quality	Division of Water Quality	
c/o DMR Processing Center	c/o DMR Processing Center	
PO Box 100	1001 I Street, 15 th Floor	
Sacramento, CA 95812-1000	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 or modified cannot be accepted.

D. Other Reports

1. The Discharger shall report the results of any special monitoring, TREs, or other data or information that results from the Special Provisions, section VI. C, of the Order. The Discharger shall submit such reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

ATTACHMENT F - FACT SHEET

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ATTACHMENT F - FACT SHEET

As described in section II of the 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.

PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1 Facility Information

Table F-1. Facility Information	XX				
Discharger					
Name of Facility	City of Watsonville				
Name of Facility	City of Watsonville Wastewater Treatment Facility				
_	401 Panabaker Lane				
Facility Address	Watsonville, CA 95076				
	Santa Cruz County				
Facility Contact, Title and Phone	Kevin Silviera, Manager, (831) 768-3175				
Authorized Person to Sign and Submit Reports	Kevin Silviera, Manager, (831) 768-3175				
Mailing Address	401 Panabaker Lane, Watsonville, CA 95076				
Billing Address	401 Panabaker Lane, Watsonville, CA 95076				
Type of Facility	POTW				
Major or Minor Facility	Major				
Threat to Water Quality					
Complexity					
Pretreatment Program	Yes				
Reclamation Requirements	Producer				
Facility Dameitte J. Fl.	12 MGD (average dry weather flow)				
Facility Permitted Flow	36 MGD (peak wet weather flow)				
Facility Davis Flore	12 MGD (average dry weather flow)				
Facility Design Flow	36 MGD (peak wet weather flow)				
Watershed	(Partition How)				
Receiving Waters	Monterey Bay				
Receiving Water Type	Ocean Water				

A. The City of Watsonville (hereinafter, the Discharger) is the owner and operator of a wastewater treatment plant, which treats domestic, commercial, and industrial wastewaters collected from the City of Watsonville, Freedom County Sanitation District, Pajaro County Sanitation District, and Salsipuedes Sanitary District, serving a population of approximately 61,000.

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 Monterey Bay, waters of the United States, and is currently regulated by Order R3-2003-0040, which was adopted on May 16, 2003 and expires on May 16, 2008. The terms and conditions of the current Order will be automatically continued and remain in effect until new Waste Discharge Requirements and a National Pollutant Discharge Elimination System (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 NPDES permit on November 6, 2007. A site visit was conducted on September 25, 2007 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

A. Wastewater and Biosolids Treatment

The City of Watsonville owns and operates a wastewater collection, treatment, and disposal system which provides sewerage service for a population of approximately 61,000 in an area that includes the City of Watsonville, the Santa Cruz County Freedom Sanitation District, the Santa Cruz County Salsipuedes Sanitary District, and the Monterey County Pajaro Sanitation District. The collection system encompasses 21 square miles and includes more than 170 miles of sanitary sewer lines which currently receive wastes discharged from residential, commercial, and 10 significant industrial facilities, including several food processors. The Wastewater Treatment Facility's design, average dry weather treatment capacity is 12 MGD, with a design peak wet weather treatment capacity of 36 MGD. In 2006, influent flow ranged from 4.6 to 15.7 MGD and averaged 7.3 MGD.

Treatment facilities consist of screening, pre-aeration/grit removal, primary sedimentation, biological filtration (trickling filters), odor control, solids contact stabilization (activated sludge), secondary clarification, disinfection, and dechlorination. Biosolids (sewage sludge or solid wastes) are treated onsite using gravity thickening, anaerobic digestion, and belt filter press dewatering, and are land-applied at various sites. In 2006, the biosolids were applied at the Menefree River Ranch under permit from the Merced County Department of Environmental Health Services. Methane gas by-product from sludge digestion is used as a fuel for producing electrical energy and heat, which are then used at the facility.

The Watsonville Wastewater Treatment Facility currently accepts less than 10,000 gallons per month of hauled brine wastes, which are segregated from wastewater treatment steps but are blended with treated wastewater for discharge through the ocean outfall. The Discharger does not anticipate an increase in the volume or change in the quality of hauled brine wastes accepted at the treatment plant during the term of this Order.

In 2008, the City of Watsonville and the Pajaro Valley Water Management Agency will jointly implement the Watsonville Area Recycling Project, which will provide reclaimed

wastewater for regional irrigation use and thereby reduce dependence on overdrafted sources of groundwater. A Recycled Water Facility is currently under construction at the existing Watsonville Wastewater Treatment Facility to produce disinfected tertiary recycled water, as defined by California Department of Health Services regulations at title 22 of the California Code of Regulations, sections 60301 – 60357 (Water Recycling Criteria). Secondary treated wastewater will be diverted from the existing wastewater treatment facility to the Recycled Water Facility, which will provide tertiary treatment by a coagulation/flocculation/sedimentation process followed by cloth media filtration and ultraviolet disinfection. The City of Watsonville will provide 4,000 acre-feet of tertiary treated wastewater to the Pajaro Valley Water Management Agency's distribution system during the local irrigation season; and during the peak irrigation season from late April/early May through late October/early November, will provide up to 7.5 MGD.

The Recycled Water Facility will have a maximum sustained treatment capacity of 5,350 gallons per minute (7.7 MGD), which is larger than the projected peak irrigation demand (7.5 MGD) to allow the facility to meet daily irrigation requirements with normal variations in the supply of secondary effluent and the demand for reclaimed wastewater. Additional wastewater reclamation capacity may be constructed to provide up to 11.6 MGD of reclaimed wastewater for regional irrigation use; however, such an expansion is not planned to occur during the anticipated term of this Order. Operation of the Recycled Water Facility will result in a significant decrease in the rate of discharge of treated wastewater through the ocean outfall during the irrigation season.

B. Discharge Points and Receiving Waters

Discharge from the City of Watsonville Wastewater Treatment Facility to the Pacific Ocean occurs through the Discharger's 7,350 foot (2,240 meter) outfall/diffuser system. The outfall (36° 50′ 44″ N. Latitude, 121° 49′ 59″ W. Longitude) terminates in the Pacific Ocean in approximately 64 feet (19.5 m) of water. The receiving water is part of the Monterey Bay National Marine Sanctuary, designated as such on September 15, 1992. The purpose of the National Marine Sanctuaries Program is to protect areas of the marine environment which possess conservation, recreational, ecological, historical, research, educational, or aesthetic qualities of special national significance. The first priority of the Program is the long term protection of resources within designated sanctuaries. The Monterey Bay Sanctuary has been recognized for its unique and diverse biological and physical characteristics.

Discharges through Discharge Point 001 consist of secondary treated wastewater as described above. The minimum initial dilution provided by the outfall/diffuser system is 84:1 (parts seawater:parts effluent), a figure that has been used by Regional Water Board staff to determine the need for water quality based effluent limitations, and, if necessary, to calculate those limitations.

During periods when the Recycled Water Facility is operated, there will be a significant decrease in the rate of discharge of treated wastewater through the ocean outfall. Because a decreased discharge rate can result in the circulation of seawater through the diffuser ports, sedimentation and biofouling in the outfall pipe, and even burial of diffuser ports, the City is modifying the diffuser system, with installation of duck bill check valves and reduction in the number of active diffusers, concurrently with implementation of the

wastewater reclamation project. The City of Watsonville conducted dilution modeling based on anticipated diffuser modifications and determined that dilution ratios greater than 84:1 may be achieved during periods of reclamation use of treated wastewater.

This Order retains the dilution ratio of 84:1 from the previous permit. At their discretion, the Discharger can apply to the Regional Water Board for approval of a different dilution ratio that is protected of water quality in all discharge scenarios.

C. Summary of Existing Requirements and Effluent Characterization

Effluent limitations contained in the previous Order for discharges from Discharge Point 001 and 2006 monitoring data for Monitoring Location EFF-001, are presented in the following tables.

Table F-2. Historic Effluent Limitations, Discharge Point 001

		Effluent Limitations					
Parameter	Units	Average Monthly	Average Weekly	Daily Maximum			
BOD₅	mg/L	30	45	90			
	lb/day	3,000	4,500	9,000			
CBOD₅	mg/L	25	40	75			
	lb/day	2,500	4,000	7,500			
TSS	mg/L	30	45	90			
	lb/day	3,000	4,500	9,000			
CBOD ₅ and TSS	%	Removal by tr	eatment shall not l	be less than 85 percent			
Oil & Grease	mg/L	25	40	75			
	lb/day	2,500	4,000	7,500			
Settleable Solids	mL/L/hr	1.0 1.5		3.0			
Turbidity	NTU	75	100	225			
рН	pH Units		6.0 - 9.0	·			

Table F-3. Effluent Characterization - 2006

	Units	Monthly Minimum	Monthly Maximum	Monthly Average	
Effluent Flow	MGD	6.5	9.1	7.5	
CBOD ₅	mg/L	6.7	14	9.8	
CBOD₅ Removal	%	95	98	97	
TSS	mg/L	5.2	11	8.4	
TSS Removal	%	97	99	98	
Oil & Grease	mg/L	0	2.6	1.3	
Temperature	°C	18	23	21	
pН	pH units	6.7	8.0	7.7	
Turbidity	NTUs	3.7	16	6.6	
Settleable Solids	mLs/L/Hr	<0.1	<0.1	<0.1	
Ammonia	mg/L N	5.5	27	15	

Source: City of Watsonville Wastewater Treatment Facility, POTW Annual Report, 2006, January 30, 2007.

D. Compliance Summary

Based on review of Annual Reports for 2003, 2005, and 2006, there were no violations of effluent or receiving water limitations. The facility reported one sanitary sewer overflow event in 2007.

E. Planned Changes

As described previously by this Order, the City of Watsonville and the Pajaro Valley Water Management Agency (PVWMA) are jointly implementing the Watsonville Area Water Recycling Project (WAWRP), to provide 4,000 acre feet of treated wastewater for agricultural irrigation. The project will result in a significant reduction in the rate of discharge from the wastewater treatment facility to Monterey Bay during irrigation season. The limitations and conditions of this Order have been established by the Regional Water Board with knowledge and proper consideration of the WAWRP. Additional wastewater reclamation capacity may be constructed to provide up to 11.6 MGD of reclaimed wastewater for regional irrigation use; however, such an expansion is not planned to occur during the anticipated term of this Order.

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

B. California Environmental Quality Act (CEQA)

Pursuant to 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. The Regional Water Board has adopted a Water Quality Control Plan for the Central Coast Region (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region. To address ocean waters, the Basin Plan incorporates by reference the Water Quality Control Plan for Ocean Waters of California (the Ocean Plan), which was adopted in 1972 and amended in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The most recent amendment to the Ocean Plan was adopted by the State Water Resources Control Board (the State Water Board) on April 21, 2005 and became effective on February 14, 2006.

The Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of very high levels of total dissolved solids (TDS) in the Pacific Ocean, including Monterey Bay, the receiving waters for discharges from the Watsonville Wastewater Treatment Facility meet an exception to Resolution No. 88-63, which precludes waters with TDS levels greater than 3,000 mg/L from the MUN designation. Beneficial uses established by the Basin Plan and the Ocean Plan for the Pacific Ocean, including Monterey Bay are described in section II. H and I of the Order.

Requirements of this Order implement the Basin Plan and Ocean Plan.

2. Thermal Plan. The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains the following temperature objective for existing discharges to enclosed bays and coastal waters of California.

Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.

The Ocean Plan defines elevated temperature wastes as:

Liquid, solid, or gaseous material discharged at a temperature higher than the natural temperature of receiving water.

- 3. California Ocean Plan. The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21. 2005 and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the Pacific Ocean.
- 4. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000), codified at 40 CFR 131.21] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- 5. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements and incorporates by reference both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- 6. Anti-Backsliding Requirements. CWA Sections 402 (o) (2) and 303 (d) (4) and NPDES regulations at 40 CFR 122.44 (I) 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.

D. Impaired Water Bodies on CWA 303 (d) List

CWA section 303 (d) requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303 (d) listed water bodies and pollutants, the Regional Water Board must develop and implement TMDLs (Total Maximum Daily Loads) that will specify WLAs (Waste Load Allocations) for point sources and Load Allocations for non-point sources.

The State's 2006 303 (d) list of impaired water bodies, which was approved by USEPA in June 2007, identifies Monterey Harbor as impaired by metals and unknown toxicity. The main body of Monterey Bay is not identified as 303 (d) impaired.

E. 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, if applicable, 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 (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 Order requires the Discharger to seek coverage under the General Permit, if applicable, and comply with its requirements.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. NPDES regulations establish two principal bases for effluent limitations. At 40 CFR 122.44 (a) permits are required to include applicable technology-based limitations and standards; and at 40 CFR 122.44 (d) permits are required to include water quality-based effluent limitations (WQBELs) 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 quidance 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. A (No discharge to Monterey Bay at a location other than as described by the Order). The Order authorizes a single, specific point of

discharge to Monterey Bay; and 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. This prohibition is also retained from the previous permit.

- 2. Discharge Prohibition III. B (Discharges in a manner, except as described by the Order are prohibited). Because limitations and conditions of the Order have been prepared based on specific information provided by the Discharger and specific wastes described by the Discharger, the limitations and conditions of the Order do not adequately address waste streams not contemplated during drafting of the Order. To prevent the discharge of such waste streams that may be inadequately regulated, the Order prohibits the discharge of any waste that was not described by to the Regional Water Board during the process of permit reissuance.
- Discharge Prohibition III. C (Discharges of radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited). This prohibition restates a discharge prohibition established in section III. H of the Ocean Plan.
- 4. Discharge Prohibition III. D (Discharge of sludge and sludge digester supernatant to the Ocean is prohibited). This prohibition restates a discharge prohibition established in section III. H of the Ocean Plan.
- 5. Discharge Prohibition III. E (Overflows and bypasses 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.

B. Technology-Based Effluent Limitations

1. Scope and Authority

NPDES regulations at 40 CFR 122.44 (a) require that permits include applicable technology-based limitations and standards. Where the USEPA has not yet developed technology based standards for a particular industry or a particular pollutant, CWA Section 402 (a) (1) and USEPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

This Order includes limitations based on the minimum level of effluent quality attainable by secondary treatment, as established at 40 CFR 133. The Secondary Treatment Regulation includes the following limitations applicable to all publicly owned treatment works (POTWs).

Table F-4. Secondary Treatment Requirements

Parameter		Effluent Limitation	on
r arailletei	30-Day Avg	7-Day Avg	Percent Removal [1]

BOD₅	30 mg/L	85	
CBOD ₅ ^[2]	25 mg/L	40 mg/L	85
TSS	30 mg/L	45 mg/L	85
рН	6.0 -		

^{[1] 30-}day average

In addition, the State Water Board, in Table A of the Ocean Plan, has established technology-based requirements, applicable to all POTWs, for oil and grease, suspended and settleable solids, turbidity, and pH.

2. Applicable Technology-Based Effluent Limitations

The following table summarizes technology-based effluent limitations established by the Order.

Table F-5. Summary of Technology-Based Effluent Limitations

		Eff	luent Limitatio	ns
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
BOD ₅ ^{[1],[2]}	mg/L	30	45	90
	lbs/day	3,000	4,500	9,000
CBOD ₅ [1],[2]	mg/L	25	40	75
	lbs/day	2,500	4,000	7,500
TSS ^[2]	mg/L	30	45	90
	lbs/day	3,000	4,500	9,000
Oil & Grease	mg/L	25	40	75
	lbs/day	2,500	4,000	7,500
Settleable Solids	mL/L/hr	1.0	1.5	3.0
Turbidity	NTUs	75	100	225
рН	pH units	6.0	0 - 9.0 at all tim	es

Following approval by the Executive Officer, the CBOD₅ effluent limit may be substituted for the BOD₅ effluent limit.

All technology-based limitations are retained from the previous permit and are required by NPDES regulations at 40 CFR 133 and/or Table A of the Basin Plan. Mass-based limitations for CBOD₅, TSS, and oil and grease are based on a discharge rate of 12 MGD, the design treatment capacity of the Watsonville Treatment Plant.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

NPDES regulations at 40 CFR 122.44 (d) require that permits include limitations more stringent than applicable federal technology-based requirements where

At the option of the permitting authority, effluent limitations for CBOD₅ may be substituted for those limitations specified for BOD₅.

^{[2] 30-}day average percent removal shall not be less than 85%.

necessary to achieve applicable water quality standards, including numeric and narrative objectives within a standard.

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

Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established in accordance with the requirements of 40 CFR 122.44 (d) (1) (vi), using (1) USEPA criteria guidance under CWA section 304 (a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Beneficial uses for ocean waters of the Central Coast Region are established by the Basin Plan and Ocean Plan and are described by Findings H and I, respectively, of Section II of the Order.

Water quality criteria applicable to ocean waters of the Region are established by the Ocean Plan, which includes water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The water quality objectives from the Ocean Plan are incorporated as receiving water limitations into this Order. In addition, Table B of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 CFR 122.44 (d) (1), and in accordance with procedures established by the Ocean Plan (2005), the Regional Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table B toxic pollutants.

3. Determining the Need for WQBELs

Procedures for performing a Reasonable Potential Analysis (RPA) for ocean dischargers are described in Section III. C. and Appendix VI of the Ocean Plan. In general, the procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set, and compares the 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." An effluent limitation must be developed for the pollutant. Effluent monitoring for the pollutant, consistent with the monitoring frequency in Appendix III (Ocean Plan), is required.
- Endpoint 2 There is no "reasonable potential." An effluent limitation is not required for the pollutant. Appendix III (Ocean Plan) effluent monitoring is not required for the pollutant; the Regional Board, however, may require occasional monitoring for the pollutant or for whole effluent toxicity as appropriate.
- Endpoint 3 The RPA is inconclusive. Monitoring for the pollutant or whole effluent toxicity testing, consistent with the monitoring frequency in Appendix III (Ocean Plan), is required. An existing effluent limitation for the pollutant shall remain in the permit, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if the monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to an excursion above a Table B water quality objective.

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 Regional Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303 (d) status of the receiving water, or the presence of threatened or endangered species or their critical habitat, or other information.

b. Second Path

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

c. Third Path

If the effluent data contains 3 or more detected and quantified values (i.e., values that are at or above the ML), and all values in the data set are at or

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

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

e. Fifth Path

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

Here, an RPA was conducted using secondary effluent monitoring data generated in 8 monitoring events between April 2003 and July 2006. The following tables present results of the RPA, performed in accordance with procedures described by the Ocean Plan for the Watsonville Wastewater Treatment Facility. The RPA endpoint for each Table B pollutant is identified. As shown in the following tables, the RPA commonly lead to Endpoint 3, meaning

that the RPA is inconclusive, when a majority of the effluent data is reported as ND (not detected). In these circumstances, the Regional Water Board concludes that additional monitoring will be required for those pollutants during the term of the reissued permit and existing effluent limits will be retained. Endpoint 2 (effluent limit not required) was concluded for arsenic, zinc, 1,4-dichlorobenzene, and bis(2-ethylhexyl)phthalate.

Effluent limitations and monitoring for all Table B (Ocean Plan) pollutants are required, except for arsenic, zinc, 1,4-dichlorobenzene, and bis(2-ethylhexyl)phthalate.

Table F-6. RPA Results for Discharges of Secondary Effluent

Table B Pollutant	Most Stringent WQO (μg/L)	No. of Samples	No. of Non- Detects	Max Effluent Conc. (μg/L)	RPA Result, Comment
Objectives for Protection		<u> </u>		11-0-7	
Arsenic	8	8	3	2.1	Endpoint 2 – Effluent limitation not required.
Cadmium	1	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorinated Phenolics	1	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (VI)	2	NA	NA		No effluent data
Copper	3	8	7	18	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Cyanide	1	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Endosulfan (total)	0.009	8	7	0.02	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Endrin	0.002	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
нсн	0.004	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Lead	2	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Mercury	0.04	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nickel	5	8	8	23	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Non-chlorinated Phenolics	30	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Selenium	15	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Silver	0.7	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Zinc	20	8	2	38	Endpoint 2 – Effluent limitation not required.
Objectives for Protection	on of Humar	n Health – N	oncarcino	gens	
1,1,1-Trichloroethane	540000	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-Dinitrophenol	4.0	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2-Methyl-4,6-Dinitrophenol	220	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Table B Pollutant	Most Stringent WQO	No. of Samples	No. of Non- Detects	Max Effluent Conc. (μg/L)	RPA Result, Comment
Table & Pollutant	(µg/L) 220	Samples 8	8	(pg/L)	Endpoint 3 – RPA is inconclusive. Less
Acrolein	420				than 3 detects or greater than 80% ND.
Antimony	1200	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2- Chloroethoxy)Methane	4.4	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-Chloroisopropyl)Ether	1200	8	8	, ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorobenzene	570	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (III)	190000	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobenzenes	5100	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Diethyl Phthalate	33000	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dimethyl Phthalate	820000	8	7	150	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Di-n-Butyl Phthalate	3500	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Ethylbenzene	4100	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Fluoranthene	. 15	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachiorocyclo- pentadiene	58	8	8	NĐ	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nitrobenzene	4.9	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Thallium	2	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toluene	85000	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tributylin	0.0014	7	6	0.0274	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
	Objectives t	or Protection	on of Huma	an Health – (Carcinogens
1,1,2,2-Tetrachloroethane	2.3	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,2-Trichloroethane	9.4	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1-Dichloroethylene	0.9	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-Dichloroethane	28	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-Diphenylhydrazine	0.16	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,3-Dichloropropylene	8.9	- 8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,4-Dichlorobenzene	18	8	0	0.98	Endpoint 2 – Effluent limitation not required.
TCDD Equivalents	3.9 x 10 ⁻⁹	8	4	1.5 x 10 ⁻⁸	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4,6-Trichlorophenol	0.29	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-Dinitrotoluene	2.6	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Table B Pollutant	Most Stringent WQO (μg/L)	No. of Samples	No. of Non- Detects	Max Effluent Conc. (μg/L)	RPA Result, Comment
3,3'-Dichlorobenzidine	0.0081	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Acrylonitrile	0.10	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Aldrin	2.2E-5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzene	5.9	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzidine	6.9E-5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Beryllium	0.033	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-Chloroethyl)Ether	0.045	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-Ethylhexyl)Phthalate	3.5	8	2	11	Endpoint 2 – Effluent limitation not required.
Carbon Tetrachloride	0.90	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlordane	2.3E-5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorodibromomethane	8.6	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chloroform	130	8	6	0.73	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
DDT (total)	0.00017	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobromomethane	6.2	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dieldrin	0.00004	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Halomethanes	130	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Heptachlor	0.00005	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Heptachlor Epoxide	0.00002	8	8	ND *	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorobenzene	0.00021	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorobutadiene	14	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachloroethane	2.5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Isophorone	730	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Methylene Chloride	450	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-Nitrosodimethylamine	7.3	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-Nitrosodi-n-Propylamine	0.38	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-Nitrosodiphenylamine	2.5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
PAHs (total)	0.0088	8	7	0.11	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non- Detects	Max Effluent Conc. (µg/L)	RPA Result, Comment
PCBs	1.9E-5	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tetrachioroethylene	2.0	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toxaphene	0.00021	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Trichloroethylene	27	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Vinyl Chloride	36	8	8	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

NA indicates that effluent data is not available

ND indicates that the pollutant was not detected.

Minimum probable initial dilution for this Discharger is 84:1.

Secondary effluent data used for this RPA are from 8 monitoring events between April 2003 and July 2006.

All units are.

4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to Monterey Bay, the Regional Water Board is establishing WQBELs for all Table B pollutants, except arsenic, zinc, 1,4-dichlorobenzene and bis(2-ethylhexyl)phthalate. The Regional Water Board is also establishing WQBELs for chlorine and whole effluent, acute and chronic toxicity, which are also pollutants or pollutant parameters identified by Table B of the Ocean Plan.

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 (μ g/L)

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

Cs = background seawater concentration (µg/L)

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 84)

For the Watsonville Wastewater Treatment Facility, the Dm of 84 is unchanged from Order No. R3-2003-0040. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. As site-specific water quality data is not available, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following.

Table F-7. Background Concentrations (Cs) - Ocean Plan (Table C)

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

For all other Table B parameters, Cs=0

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

Table F-8. Water Quality Objectives (Co)-Ocean Plan (Table B)

Objectives for Protection of Marine Aquatic Life

Objectives for P Pollutant	Units	6-Month	Daily	Instantaneous
		Median	Maximum	Maximum
Arsenic	µg/L	8	32	80
Cadmium	µg/L	1	4	10
Chromium (VI)	μg/L	2	8	20
Copper	μg/L	3	12	30
Lead	μg/L	2	8	20
Mercury	μg/L	0.04	0.16	0.4
Nickel	µg/L	5	20	50
Selenium	µg/L	15	60	150
Silver	µg/L	0.7	2.8	7
Zinc	μg/L	20	80	200
Cyanide	μg/L	. 1	4	10
Total Chlorine		2	8	60
Residual	μg/L	2	0	
Ammonia		600	2400	6000
Acute Toxicity	TUa		0.3	
Chronic Toxicity	TUc		1	
Non-chlorinated		30	120	300
Phenolics	μg/L	30	120	300
Chlorinated		1	4	10
Phenolics	μg/L			10
Endosulfan		0.009	0.018	0.027
(total)	μg/L			
Endrin	μg/L	0.002	0.004	0.006
HCH	μg/L	0.004	0.008	0.012
Radioactivity				

Objectives for Protection of Human Health - (Non-Carcinogens)

Pollutant	Units	30-day Average	
Acrolein	µg/L	220	
Antimony	μg/L	1200	
Bis(2-Chloroethoxy)Methane	μg/L	4.4	
Bis(2-Chloroisopropyl)Ether	μg/L	1200	
Chlorobenzene	μg/L	570	

Pollutant	Units	30-day Average
Chromium (III)	μg/L	190,000
Di-n-Butyl Phthalate	μg/L	3500
Dichlorobenzenes	μg/L	5100
Diethyl Phthalate	μg/L	33000
Dimethyl Phthalate	μg/L	820,000
2-Methyl-4,6-Dinitrophenol	μg/L	220
2,4-Dinitrophenol	μg/L	4
Ethylbenzene	μg/L	4100
Fluoranthene	μg/L	15
Hexachlorocyclopentadiene	μg/L	58
Nitrobenzene	μg/L	4.9
Thallium	μg/L	2
Toluene	μg/L	85,000
Tributyltin	µg/L	0.0014
1,1,1-Trichloroethane	μg/L	540,000

Objectives for Protection of Human Health - (Carcinogens)

Pollutant	Units	30-day Average
Acrylonitrile	μg/L	0.1
Aldrin	μg/L	0.000022
Benzene	μg/L	5.9
Benzidine	μg/L	0.000069
Beryllium	μg/L	0.033
Bis(2-Chloroethyl)Ether	μg/L	0.045
Bis(2-Ethylhexyl)Phthalate	μg/L	3.5
Carbon Tetrachloride	µg/L	0.9
Chlordane	μg/L	0.000023
Chlorodibromomethane	µg/L	8.6
Chloroform	μg/L	130
DDT (total)	μg/L	0.00017
1,4 Dichlorobenzene	µg/L	18
3,3'-Dichlorobenzidine	μg/L	0.0081
1,2-Dichloroethane	μg/L	28
1,1-Dichloroethylene	μg/L	0.9
Dichlorobromomethane	μg/L	6.2
Methylene Chloride	μg/L	450
1,3-Dichloropropylene	μg/L	8.9
Dieldrin	μg/L	0.00004
2,4-Dinitrotoluene	μg/L	2.6
1,2-Diphenylhydrazine	μg/L	0.16
Halomethanes	μg/L	130
Heptachlor	μg/L	0.00005
Heptachlor Epoxide	μg/L	0.00002
Hexachlorobenzene	μg/L	0.00021
Hexachlorobutadiene	μg/L	14
Hexachloroethane	μg/L	2.5
Isophorone	μg/L	730
N-Nitrosodimethylamine	μg/L	7.3
N-Nitrosodi-n-Propylamine	μg/L	0.38

Pollutant	Units	30-day Average	
N-Nitrosodiphenylamine	µg/L	2.5	
PAHs (total)	μg/ L	0.0088	
PCBs	µg/L	0.000019	
TCDD Equivalents	µg/L	0.000000039	
1,1,2,2-Tetrachloroethane	μg/L	2.3	
Tetrachloroethylene	μg/L	2	
Toxaphene	µg/L	0.00021	
Trichloroethylene	µg/L	27	
1,1,2-Trichloroethane	μg/L	9.4	
2,4,6-Trichlorophenol	μg/L	0.29	
Vinyl Chloride	μg/L	36	

Using the equation, Ce = Co + Dm (Co - Cs), effluent limitations are calculated as follows (effluent limitations for copper, DDT, and chronic toxicity are shown here for example only).

Copper

Ce = 3 + 84 (3 - 2) = 87
$$\mu$$
g/L (6-Month Median)
Ce = 12 + 84 (12 - 2) = 852 μ g/L (Daily Maximum)
Ce = 30 + 84 (30 - 2) = 2,382 μ g/L (Instantaneous Maximum)

DDT

Ce =
$$0.00017 + 84 (0.00017 - 0) = 0.01445 \mu g/L (30-Day Average)$$

Chronic Toxicity

$$Ce = 1 + 84 (1 - 0) = 85 TUc (Daily Maximum)$$

Mass Based Effluent Limitations

Implementing provisions at Section III. C of the Ocean Plan require 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 based on a flow rate of 12 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.

Regional Water Board staff have determined that treated wastewater from the Watsonville Treatment Facility has a reasonable potential to cause or contribute to acute and/or chronic toxicity in the discharge. Such a determination is consistent with the RPA procedure of the Ocean Plan which requires consideration of all available information, including the "potential toxic impact of the discharge" to determine if WQBELs are necessary, notwithstanding the statistical procedure with which the RPA is conducted for most pollutants. Due to the multiple residential, commercial, and industrial contributors to the influent flow of the Watsonville Treatment Facility, and because the cumulative effects of various pollutants present at low levels in the discharge are unknown, acute and chronic toxicity limitations are retained from the previous permit.

The Discharger must also 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.

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

The Order retains effluent limitations established by the previous permit for BOD₅, CBOD₅, TSS, oil and grease, settleable solids, turbidity, and pH. Limitations for total and fecal coliform, and enterococcus bacteria have also been retained, with some modifications. The average monthly and maximum daily effluent limitations for bacteria were calculated based on Ocean Plan WQOs, multiplied by the applicable dilution factor of 84. The Order retains most of the effluent limitations from the previous permit for the Ocean Plan Table B toxic pollutants. Effluent limitations for arsenic, zinc, bis(2-ethylhexyl)phthalate, and 1,4-dichlorobenzene have not been retained from the previous permit.

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, resulted in a finding of Endpoint 2 for arsenic, zinc, bis(2-ethylhexyl)phthalate, and 1,4-dichlorobenzene, as described in Section IV.C.3. of this Fact Sheet, and therefore this Order does not establish effluent limitations for these pollutants.

Elimination of WQBELs for Table B pollutants is consistent with the exception to the Clean Water Act's anti-backsliding requirements expressed at section 402(o)(2)(B)(i) of the Act, which 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 was generated during the term of previous permit, and which demonstrates no reasonable potential for discharges from the facility to cause or contribute to exceedances of applicable water quality standards for these pollutants.

The discharge prohibition from the previous permit which prohibited the discharge of wastewater at locations other than "approved reclaimed water use sites authorized under valid water reclamation requirements issued or waived by the Regional Board", has been removed from this Order. The Reclamation Specifications described in section IV.C. replace this prohibition found in the previous permit, and in effect, the requirements of the discharge prohibition from the previous permit are retained by the Reclamation Specifications.

Consequently, the Order does not contain effluent limitations or prohibitions that are less stringent than the previous permit and is consistent with the anti-backsliding requirements.

2. Satisfaction of Antidegradation Policy

The Order does not authorize increases in discharge rates or pollutant loadings, and its limitations and conditions otherwise assure maintenance of the existing quality of receiving waters. Therefore, 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.

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 ; $CBOD_5$; 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.

F. Land Discharge Specifications

This section of the standardized permit is not applicable to the City of Watsonville Treatment Facility.

G. Reclamation Specifications

The Order does not address use of reclaimed wastewater except to require compliance with applicable State and local requirements regarding the production and use of reclaimed wastewater, including requirements of California Water Code (CWC) sections 13500 – 13577 (Water Reclamation) and Department of Health Services regulations at title 22, sections 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria).

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 modified to reflect all applicable, general water quality objectives of the Ocean Plan (2005). Regional Water Board staff view receiving water limits in the new Order to be more comprehensive and equivalent to the receiving water limitations of the previous permit.

B. Groundwater

Groundwater limitations established by the Order include general objectives for ground water established by the Basin Plan for the Central Coast Region.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. Rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program (MRP), which is presented as Attachment E of this Order, is presented below.

A. Influent Monitoring

Other than changes in monitoring frequency, the influent monitoring requirements of the previous permit are retained in this Order. The frequency of influent monitoring for CBOD₅ and TSS are changed from twice weekly to weekly. The frequency was reduced for CBOD₅ and TSS because the Watsonville Wastewater Treatment facility has consistently met effluent limits for these parameters, and because the reduced frequency closely matches the monitoring requirements of other facilities of similar size in the region.

B. Effluent Monitoring

Effluent monitoring requirements of the previous permit for Discharge Point 001 (the Ocean outfall) are retained in this Order, with the following exceptions/changes.

- Monitoring for the Ocean Plan Table B pollutants is required two times per year and is consistent with the previous permit. Table B pollutant monitoring is now specifically required one time in a period of high effluent flow (while no effluent is being recycled) and one time during a period of low effluent flow (while most or all of the effluent is being recycled). This monitoring will provide on-going characterization of treated wastewater and is especially important because of the implementation of the recycling project. Monitoring data will provide on-going characterization of the discharge and will allow Regional Water Board to staff to continually assess the need for effluent limitations for the Table B pollutants.
- Quarterly monitoring requirements for total phenolic compounds and total sulfides were eliminated from the Order. Effluent limitations do not exist for these parameters aside from the Ocean Plan Table B water quality objectives for chlorinated phenolics (total) and individual phenolic compounds. The Ocean Plan contains no water quality objectives for sulfide compounds given the ocean contains high levels of sulfate. Semiannual monitoring for chlorinated phenolics (total) and individual phenolic compounds is required per the Ocean Plan Table B pollutant monitoring requirements.
- Frequency of effluent monitoring was changed from the previous permit for several parameters, as follows: BOD₅/CBOD₅, TSS, settleable solids, and temperature were changed from twice weekly to weekly monitoring; total residual chlorine was changed from continuous to daily monitoring; pH was changed from daily to weekly monitoring; and acute and chronic toxicity monitoring was changed from quarterly to semi-annual monitoring. The monitoring frequencies were reduced because the Watsonville Wastewater Treatment facility has consistently met effluent limits for these parameters, and because the reduced frequency closely matches the monitoring requirements of similar sized facilities in the region.
- As described below (Section VI.E.1), sampling for Table B pollutants has been changed to a high volume water sampling (HVWS) method used by the Central Coast Long-Term Environmental Assessment Network (CCLEAN) program.

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 acute and chronic WET limitations from the previous permit and reduces the effluent monitoring frequency from quarterly to

semiannually¹ for Discharge Point 001. The Order requires WET monitoring be conducted concurrently with Table B pollutant monitoring one time in a period of high effluent flow (while no effluent is being recycled) and one time during a period of low effluent flow (while most or all of the effluent is being recycled).

D. Receiving Water Monitoring

1. Bacteria Monitoring

The Order retains the bacteriological receiving water monitoring from the previous permit with minor modifications to the triggers leading to effluent monitoring and limitations. The changes are consistent with the Implementation Provisions for Bacterial Characteristics contained within Section III.D of the Ocean Plan.

2. Groundwater

Groundwater monitoring requirements are not established by the Order.

E. Other Monitoring Requirements

1. Central Coast Long-Term Environmental Assessment Network (CCLEAN)

Requirements to participate in the CCLEAN Regional Monitoring Program are retained from the previous permit, except as discussed below.

Background. At the March 21, 2008, public meeting, the Board adopted updated waste discharge requirements for Monterey Regional Pollution Control Agency (Monterey Regional) and Carmel Area Wastewater District (CAWD). The Board also considered the Monitoring and Reporting Programs (MRPs) proposed for the City of Watsonville and the City of Santa Cruz. This permit includes the MRP (Attachment E) the Board considered then. In March, the Board considered the four MRPs because each discharger participates in CCLEAN's (Central Coast Long-Term Environmental Assessment Network) regional monitoring program, and should therefore use identical monitoring procedures in most cases.

The four municipalities, which include the Discharger, that now participate in the regional monitoring program discharge treated municipal wastewater into Monterey Bay. In accordance with CCLEAN's charter, the regional monitoring program employs a High-volume Water Sampling (HVWS) method to monitor the discharges to determine the sources of pollutants found in nearshore waters. Additionally, since May 2005, the City of Santa Cruz has sampled its effluent using a proven HVWS method, a semi-permeable membrane device, to demonstrate compliance with its permit's effluent limitations. The City of Santa Cruz combines its effluent with the City of Scotts Valley's and discharges the combined waste streams through the Santa Cruz ocean outfall.

¹ Minimum sampling frequency for Table B parameters for discharges greater than 10 MGD specified within Appendix III of the Ocean Plan

HVWS allows detection of pollutants present in wastewater at low concentrations by capturing all the pollutant present in a large volume of wastewater. In particular, HVWS allows detection of persistent and bioaccumulative pollutants at concentrations below their effluent limitations, thereby allowing compliance with limitations to be determined. Grab samples or 24-hour composite samples do not provide the necessary pollutant mass or sample volume to enable analytical methods to detect these pollutants at concentrations below effluent limitations. The following section provides more detailed information on HVWS systems.

High volume water sampling (HVWS) (integrative sampling).

Some synthetic chlorinated hydrocarbons strongly resist bacterial degradation. Therefore, these compounds persist in the environment, some essentially forever. These persistent organic pollutants include dioxins, chlorinated pesticides, polychlorinated biphenyls (PCBs), and polybrominated biphenyl ethers (PBDEs). Persistent organic pollutants often accumulate in fatty tissues of higher aquatic organisms as they prey on lower forms, and can thereby increase to levels that cause cancer and mutations in offspring. Consequently, Congress banned the production and use of chlorinated pesticides and PCBs. However, high-temperature or highly corrosive processes, like paper bleaching, continually generate dioxins as waste byproducts. Therefore, these sources contribute dioxins to municipal wastewaters, in contrast to chlorinated pesticides and PCBs, which are neither made nor used in this country. The California Ocean Plan specifies very low water quality objectives for persistent organic pollutants because of their ability to bioaccumulate to toxic levels. For example, for dioxin (by far the lowest limit), the Ocean Plan limit is approximately 4 billionths of a millionth of a gram per liter of seawater (3.9 x 10 9 mg/L or 3.9 x 10^{-15} g/L).

Effluent and receiving water monitoring conducted by this Region's CCLEAN has continually found persistent organic pollutants. (CCLEAN does not currently monitor dioxins, however). CCLEAN is able to detect the persistent organic pollutants by employing integrative HVWS instead of the usual 24-hour composite of 24 discrete grab samples. In CCLEAN's HVWS, for 30 days a constant-flow effluent stream split from the plant's discharge is passed, after filtration, through a column packed with beads of a specially formulated resin, which captures all the persistent organic pollutants in the split stream. Sampling is conducted over two 30-day periods, one in summer and one in winter. The mass of each persistent organic pollutant is determined by standard analysis of the extract from the resin. Knowing the volume of wastewater from which the persistent organic pollutants were obtained, the average concentration in the wastewater of each persistent organic pollutant can then be determined.

HVWS over two 30-day intervals every year provides a much more representative sample than the 24-hour composite, which comprises 24 small grab samples taken on one day. The pollutant is usually present in the HVWS extract in amounts that are detectable by the standard analytical procedures specified in 40 CFR 136. Moreover, when the large sample volume (say 200 L) is factored in, very low

concentrations can be demonstrated. CCLEAN is thereby able to report effluent persistent organic pollutants concentrations on the order of 10 pg/L $(1.0 \times 10^{-12} \text{ g/L})$.

Sampling history. 24-hour composite effluent samples from some of this Region's plants (obtained in accordance with the Board's monitoring and reporting programs) have occasionally detected dioxins, sometimes in greater concentrations than permit limitations. These sporadic results indicate the likely presence of dioxins in municipal plant effluent. Published studies have found possible dioxin sources to be bleached paper, such as toilet tissue, and wastewater plant chlorination processes.

When analyzing the usual 24-hour composite or grab sample volume, EPA Method 1613B achieves approximately 10 pg/L as the lower limit of detection, which exceeds, for example, the City of Santa Cruz's dioxin effluent limit of 0.55 pg/L. (Effluent limits of other CCLEAN participants are similar). Therefore, HVWS provides the only means to detect dioxins and other similar persistent organic pollutants at levels below permit limits, and at levels above permit limits but below the grab sample detection limit; i.e. from 0.001 pg/L to 10 pg/L. HVWS has detected dioxin at 0.001 pg/L in water, which is well below the effluent limitation.

Sporadic detection of dioxin in small samples of this Region's municipal discharges to fresh and marine waters emphasizes the need to extend HVWS to all such discharges to determine the extent that both regulated and unregulated toxic pollutants may threaten the beneficial uses of surface water and groundwater. Until March 2008, the CCLEAN participants other than the City of Santa Cruz (City of Watsonville, Monterey Regional and CAWD) did not monitor their discharges with HVWS to demonstrate compliance with permit effluent limitations because that was not CCLEAN's goal. Therefore, the regional monitoring program has not looked for all Ocean Plan toxic pollutants, including dioxin.

Since May 2005, Santa Cruz has sampled its effluent with a SPMD and has detected a number of pollutants not found in 24-hour composite samples, the prior sampling method. In particular, Santa Cruz found several congeners (or species) of dioxin and several of furan. No dioxin was present at a concentration that caused violation of its effluent limitation.

In addition, CCLEAN's regional monitoring program has also detected similar pollutants using its HVWS, including 46 congeners of the compounds of emerging concern PBDE, among others.

Updated monitoring requirements. In 2007, therefore, staff initiated planning by regional monitoring program participants to investigate the feasibility of monitoring the four discharges to Monterey Bay with the same HVWS method(s) to both achieve CCLEAN's goals and to assess compliance with effluent limitations. In staff's view, this approach would be more efficient and cost-effective than using two HVWS methods, one for CCLEAN and the other to determine permit compliance.

Secondly, staff requested the CCLEAN participants develop a list of compounds of emerging concern to include in the MRPs. Currently, no State Water Quality

Control Plan establishes objectives for compounds of emerging concern (CECs) although they threaten the health of humans and animals, and are often detected in ambient waters or municipal wastewaters. That is, CECs often threaten to impair beneficial uses of marine waters, and fresh surface water and groundwater. Staff and the CCLEAN participants agree they should monitor their discharges for these pollutants. If monitoring detects CECs, subsequent actions could include public education campaigns or other actions.

Accordingly, CCLEAN's program manager developed the Draft 2008-2013 CCLEAN Five-year Plan (Plan), which responds to staff's requests, as follows:

- The Plan was not able to resolve differences between the current CCLEAN sampling method (resin beads), the SPMD, and the POCIS (Polar Organic Chemical Integrative Sampler) methods. As discussed below, the proposed MRPs require the CCLEAN participants to resolve these issues and recommend the appropriate HVWS method(s).
- 2. The Plan recommends three classes of compounds of emerging concern for effluent monitoring, as follows:
 - a. Polybrominated biphenyl ethers (PBDEs) are widely used flame retardants often detected by CCLEAN monitoring. In a manner similar to PCBs, PBDEs may disrupt nervous system development.
 - b. Polyfluorinated compounds (PFCs) may adversely affect wildlife and are found in high concentrations in wastewater. The CCLEAN advisor proposed a screening study for PFGCs.
 - c. The Ocean Plan's Table B does not include many endocrine disrupting compounds. Evidence of adverse effects of endocrine disrupting compounds (EDCs) of aquatic life accumulates from day to day. Although a discharge may comply with the Ocean Plan's constituent-specific objectives and current whole effluent toxicity tests may find no chronic toxicity, the discharge may impair the health of aquatic life by disrupting the development of the young or by adversely altering the sex distribution. The Plan proposes the CCLEAN participants jointly employ a proven bioassay procedure to evaluate the influence of effluent EDCs on the health of marine fish.

To monitor the Discharger's effluent for the persistent and bioaccumulative toxic compounds discussed above, the MRP requires annual influent HVWS monitoring for the appropriate Table B pollutants in Table E-2 and semiannual effluent HVWS monitoring for the appropriate Table B pollutants, in addition to pollutants on the federal National Priority List that are not included in Table B. The results of Table B monitoring shall serve to determine if the discharge complies with the effluent limitations in its NPDES permit.

To monitor the discharges for compounds of emerging concern, staff added requirements to section IX.A in the MRP; ie, to requirements for CCLEAN. The MRPs for the other CCLEAN participants include identical provisions. Accordingly, in Table E-8 (CCLEAN Monitoring Requirements) in section IX.A, staff proposes to include semi-annual effluent monitoring with HVWS for polybrominated diphenyl

ethers and grab samples for polyfluorinated compounds. Also, to, to semiannual monitor PFCs after a screening study discussed below, and to semiannual biological monitoring of the effects of endocrine disrupting compounds, if any, after the discharger, in concert with the other CCLEAN participants, specifies the bioassay procedure to be used. Staff proposes to add the pollutants to Table E-4.

To establish the following in accordance with the discussion above, staff proposes to modify the section IX.A CCLEAN monitoring requirements to address:

- 1. The HVWS method to be used by all CCLEAN participants for permit compliance,
- 2. The proven method to bioassay the potential effects of estrogenic EDCs on human and animal life.
- 3. The screening study to determine the nature of ongoing monitoring of perfluorinated compounds,

"The CCLEAN Quality Assurance Project Plan (QAPP) shall be revised and submitted by **July 1**, **2008** to the Water Board Quality Assurance Officer for approval, and thereafter as necessary each year to reflect any program adjustments. A detailed technical study design and a description of the specific contents of the CCLEAN Annual Report shall be provided as a component of the CCLEAN QAPP. Revisions to the QAPP to be submitted by July 1, 2008 include the following:

- 1) Detailed description of high volume water sampling (HVWS) method or methods to be employed by the CCLEAN program for compliance determination of Table B pollutants, and the implementation of all other pollutant monitoring requirements contained within this Order, as appropriate, and the basis for the choice of the selected method(s);
- 2) Identification of the specific pollutants to be sampled using HVWS,
- 3) Identification of Table B and other pollutants to be sampled using conventional grab sampling approaches (rather than HVWS), if any;
- 4) Description of analytical methods and method quality objectives (in accordance with 40 CFR 136 or as allowable per the Implementation Provisions for Table B contained in section III.C.5.b of the Ocean Plan);
- 5) Sampling design, protocols, analytical requirements and method quality objectives for a proven integrative biological method to monitor the effects of endocrine disrupting compounds; and
- 6) Sampling design, protocols, analytical requirements, and method quality objectives for a two-year screening study for polyfluorinated compounds (PFCs).

Any year-to-year modifications to the program shall be identified in the QAPP. QAPP modifications shall be made consistent with SWAMP QAPP format requirements. The QAPP will also include program components funded by other participant agencies and organizations. A detailed technical study design description, including specific location of sampling sites and a description of the

specific contents of the CCLEAN Annual Report, shall be provided as a component of the CCLEAN QAPP. The QAPP will also include program components funded by other participant agencies and organizations."

In contrast to the results of analyzing 24-hour composite samples, monitoring with HVWS has allowed the City of Santa Cruz and the City of Scotts Valley to demonstrate permit compliance for pollutants with low effluent limitation, including dioxin. Therefore, HVWS methods should be used to sample all municipal and industrial discharges to surface and groundwater, including the discharges of the CCLEAN participants to Monterey Bay.

2. Biosolids/Sludge Monitoring.

40 CFR 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.

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. Decreased sludge monitoring and reporting requirements of this Order, compared to the previous permit, therefore reflect the fact that USEPA, not the Regional Water Board, oversees compliance with 40 CFR 503.

3. Pretreatment Monitoring.

The Order retains the requirements of the previous permit to conduct pretreatment monitoring and reporting.

4. Outfall Inspection.

The Order retains the requirement of the previous permit to conduct annual, visual inspections of the outfall structure and report to the Regional Water Board regarding its physical integrity.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D to the Order.

NPDES regulations at 40 CFR 122.41 (a) (1) and (b - 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. 40 CFR 123.25 (a) (12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR123.25, this Order omits federal conditions that address enforcement authority

specified in 40 CFR 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.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

The requirement to maintain a Toxicity Reduction Work Plan is retained from Order No. R3-2003-0040. When toxicity monitoring measures acute or chronic toxicity in the effluent above the limitation established by the Order, the Discharger is required to resample and retest, if the discharge is continuing. When all monitoring results are available, the Executive Officer can determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation (TRE) requirements, or whether other measures are warranted.

b. Bacteria Assessment

Requirements to conduct additional triggered bacteriological receiving water sampling and a bacterial assessment when receiving water limitations for bacteria are exceeded are retained from the previous permit with modifications to be consistent with the Ocean Plan. A repeat water-contact bacteriological monitoring provision was added to the permit (section VI.C.2.b) in accordance with Ocean Plan section III.D.1.b, for exceedance of a single sample maximum (SSM) bacteria standard contained within section V.A.1 of the Order.

c. Infiltration/Inflow and Spill Prevention Program Requirements

Infiltration/inflow and spill prevention program requirements are not retained from the previous permit as the Discharger is required to enroll in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, State Water Board Order No. 2006-0003-DWQ, which includes similar provisions for the control of infiltration/inflow and spills.

3. Best Management Practices and Pollution Prevention

Pollutant Minimization Program: The 2005 California Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. The Central Coast Water Board will notify the Discharger in writing if such a program becomes necessary.

4. Construction, Operation, and Maintenance Specifications

This section of the standardized permit is not applicable to the City of Watsonville Treatment Facility.

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

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

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

b. Pretreatment

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

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5 mgd or less develop a POTW pretreatment program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent interference with the POTW or pass through as defined in 40 CFR 403.3.

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

6. Other Special Provisions

a. Discharges of Storm Water

The Order requires, if applicable, coverage by and compliance with applicable provisions of General Permit No. CAS000001 - Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.

b. Sanitary Sewer System Requirements

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

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 is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the City of Watsonville Wastewater Treatment Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional 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. Notification was provided through the following **posting in the Watsonville Register-Pajaronian**

B. Written Comments

Regional Water Board staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To receive a full response from the Regional Water Board staff and to be considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on **March 24, 2008**

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:

May 9, 2008

Time:

8:30 a.m.

Location:

Central Coast Water Board

895 Aerovista Place, 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 http://www.waterboards.ca.gov/centralcoast/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The 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 or MHiggins@waterboards.ca.gov.

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