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Regional Water Quality Control Board
Central Coast Region

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Arnold Schwarzenegger
Governor

DRAFT ORDER NO. R3-2010-0011
NPDES NO. CA0048143

WASTE DISCHARGE REQUIREMENTS
FOR THE CITY OF SANTA BARBARA
EL ESTERO 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 Santa Barbara**
Name of Facility	**El Estero Wastewater Treatment Facility**
Facility Address	**520 East Yanonali Street**
	Santa Barbara, CA 93103
	Santa Barbara
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the City of Santa Barbara from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Equivalent to Secondary Treated Effluent	34º 23' 31" N	119º 40' 03" W	Pacific Ocean

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**May 13, 2010**
This Order shall become effective on:	**May 13, 2010**
This Order shall expire on:	**May 13, 2015**
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:	**180 days prior to the Order expiration date**

IT IS HEREBY ORDERED, that Order No. R3-2004-0122 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

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Roger Briggs, Executive Officer

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I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	**City of Santa Barbara**
Name of Facility	**El Estero Wastewater Treatment Facility**
Facility Address	**520 East Yanonali Street**
	Santa Barbara, CA 93103
	Santa Barbara
Facility Contact, Title, and Phone	**Todd Hildoorn, Wastewater Treatment Supervisor, (805) 568-1003**
Mailing Address	**SAME**
Type of Facility	**Publicly Owned Treatment Works**
Facility Design Flow	**11.0 million gallons per day (MGD) of secondary treated wastewater** **12.5 MGD of desalination brine**

II. FINDINGS

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

A. Background. City of Santa Barbara (hereinafter Discharger) is currently discharging pursuant to Regional Water Board Order No. R3-2004-0122 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048143. The Discharger submitted a Report of Waste Discharge, dated June 25, 2009, and applied for a NPDES permit renewal to discharge up to 11.0 MGD of disinfected equivalent to secondary treated wastewater from El Estero Wastewater Treatment Facility, and up to 12.5 MGD of desalination brine from a seawater desalination facility. The wastewater treatment facility and the desalination facility are hereinafter collectively referred to as the Facility.

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 a wastewater collection, treatment, and disposal system to provide sewerage service to the City of Santa Barbara and portions of Santa Barbara County, serving a population of approximately 96,000. The secondary treatment system consists of screening and grinding, aerated grit removal, primary sedimentation, activated sludge stabilization, secondary clarification, disinfection by chlorination, and dechlorination facilities.

The Discharger owns a seawater desalination facility, which is currently not in operation. The Discharger has requested the continued coverage of the potential discharge of desalination brine from the Facility in the event that the desalination facility is operated again. When operational, the desalination facility discharges desalination brine at one of five flow rates (3.9, 4.1, 9.4, and 12.5 MGD).

Wastewater is discharged through a 8,720 foot diffuser to the Pacific Ocean, a water of the United States, at Discharge Point No. 001 (see table on cover page). The outfall terminates in the Santa Barbara Channel in approximately 70 feet of water and provides a minimum initial dilution ratio of 120:1 (seawater:effluent) when brine from the desalination facility is not being discharged. A minimum initial dilution of 44:1 is provided when brine from the desalination facility is being discharged through the outfall. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.

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

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

E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR Part 133. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

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

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

H. Water Quality Control Plans. The Regional Water Board adopted the *Water Quality Control Plan for the Central Coast Region* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains programs and polices 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).

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

The Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. 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, provides beneficial uses established in the Basin Plan for coastal waters between Coal Oil Point and Rincon Point.

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Coastal Waters from Coal Oil Point to Rincon Point	• Water Contact and Non-Contact Recreation • Industrial Service Supply • Navigation • Marine Habitat • Shellfish Harvesting • Commercial and Sport Fishing • Rare, Threatened, or Endangered Species • Wildlife Habitat

To protect 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 Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005 and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table 6. Ocean Plan Beneficial Uses

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

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

J. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for

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

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 Carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), settleable solids, oil and grease, turbidity, and pH for Discharge Point No. 001. These technology-based limitations implement the minimum applicable federal technology-based requirements. The Order also contains limitations 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 were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

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

M. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with

some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

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 the applicable Endangered Species Act.

O. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) (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 section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 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.C, V.B, and VI.C. 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 34° 23' 31' N. Latitude, 119° 40' 03" 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), are prohibited.

C. The dry weather average monthly rate of discharge from the wastewater treatment facility shall not exceed 11 MGD. The average monthly rate of discharged from the desalination facility shall not exceed 12.5 MGD.

D. The discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited.

E. 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.

F. 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. A.7 (Bypass), is prohibited.

G. The Discharge of materials and substances in the wastewater that result in the following are prohibited:

1. float or become floatable upon discharge;

2. may form sediments which degrade benthic communities or other aquatic life;

3. accumulate to toxic levels in marine waters, sediments or biota;

4. decrease the natural light to benthic communities and other marine life; and

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

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations for secondary treated effluent at Discharge Point No. 001, prior to any secondary treated effluent comingling with desalination brine water, with compliance measured at Monitoring Location EFF-001A as described in the attached MRP.

Table 7. Effluent Limitations for Major Constituents and Properties of Wastewater

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)[1]	mg/L	25	40	90
	lbs/day	2,290	3,670	8,260
Total Suspended Solids (TSS)	mg/L	30	45	90
	lbs/day	2,750	4,130	8,260
pH	standard units	--	6.0 – 9.0 at all times[2]	--

[1] Per 40 CFR 133.102, this Order substitutes five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) Mass limitations are applicable when flows are equal to or less than 11 MGD.

[2] 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.

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 Water 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.

b. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001 for the final total effluent, with compliance measured at Monitoring Location EFF-001B as described in the attached MRP.

Table 8. Effluent Limitations for Major Constituents Based on Table A of the Ocean Plan

Parameter	**Units**	**Effluent Limitations**		
		Average Monthly	**Average Weekly**	**Maximum Daily**
Oil and Grease	mg/L	25	40	75
Settleable Solids	ml/L	1.0	1.5	3.0

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Turbidity	NTU	75	100	225
pH	standard units	--	6.0 – 9.0 at all times[1]	--

[1] 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.

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 Water 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.

c. Toxic Pollutants.

i. The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point No. 001, when not discharging desalination facility brine, with compliance measured at Monitoring Location EFF-001B, as described in the attached MRP.

Table 9a. Effluent Limitations for the Protection of Marine Aquatic Life – Without Desalination Brine Discharge

Parameter	Units	Effluent Limitations		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Arsenic, Total Recoverable	µg/L	608	3,512	9,320
Cadmium, Total Recoverable	µg/L	121	484	1,210
Chromium VI, Total Recoverable[1]	µg/L	242	968	2,420
Copper, Total Recoverable	µg/L	123	1,212	3,390
Lead, Total Recoverable	µg/L	242	968	2,420
Mercury, Total Recoverable	µg/L	4.78	19.3	48.34
Nickel, Total Recoverable	µg/L	605	2,420	6,050
Selenium, Total Recoverable	µg/L	1,815	7,260	18,150
Silver, Total Recoverable	µg/L	66.5	319.6	827.8
Zinc, Total Recoverable	µg/L	1,460	8,720	23,240
Cyanide, Total Recoverable[2]	µg/L	121	484	1,210
Total Chlorine Residual[3]	µg/L	242	968	7,260
Ammonia (expressed as nitrogen)	mg/l	72.6	290.4	726
Acute Toxicity	TUa	---	3.9	---
Chronic Toxicity	TUc	---	121	---
Phenolic Compounds (non-chlorinated)	µg/L	3,630	14,520	36,300

Parameter	Units	Effluent Limitations		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Chlorinated Phenolics	µg/L	121	484	1,210
Endosulfan	µg/L	1.09	2.18	3.27
Endrin	µg/L	0.24	0.48	0.73
HCH	µg/L	0.48	0.97	1.45
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

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

[2] If the Discharger can demonstrate to the satisfaction of the Regional Water Board 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 Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

[4] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[5] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[6] The instantaneous maximum shall apply to grab sample determinations.

Table 9b. Effluent Limitations for the Protection of Human Health - Without Desalination Brine Discharge

Parameter	Unit	30-Day Average
Noncarcinogens		
Acrolein	mg/l	26.6
Antimony	mg/l	145.2
Bis(2-chloroethoxy) Methane	µg/L	532.4
Bis(2-chloroisopropyl) ether	mg/l	145.2
Chlorobenzene	mg/l	68.97
Chromium (III)	mg/l	22,990
Di-n-butyl Phthalate	mg/l	423.5
Dichlorobenzenes[7]	mg/l	617.1
Diethyl Phthalate	mg/l	3,993
Dimethyl Phthalate	mg/l	99,220
4,6-dinitro-2-methylphenol	µg/L	26,620

Parameter	Unit	30-Day Average
2,4-dinitrophenol	µg/L	484
Ethylbenzene	mg/l	496.1
Fluoranthene	µg/L	1,815
Hexachlorocyclopentadiene	µg/L	7,018
Nitrobenzene	µg/L	592.9
Thallium	µg/L	242
Toluene	mg/l	10,285
Tributyltin	µg/L	0.17
1,1,1-trichloroethane	mg/l	65,340
Carcinogens		
Acrylonitrile	µg/L	12.1
Aldrin	µg/L	0.0027
Benzene	µg/L	713.9
Benzidine	µg/L	0.0083
Beryllium	µg/L	3.99
Bis(2-chloroethyl) Ether	µg/L	5.45
Bis(2-ethlyhexyl) Phthalate	µg/L	423.5
Carbon Tetrachloride	µg/L	108.9
Chlordane[8]	µg/L	0.0028
Chlorodibromethane	µg/L	1,040.6
Chloroform	mg/l	15.73
DDT[9]	µg/L	0.0206
1,4-dichlorobenzene	µg/L	2,178
3,3'-dichlorobenzidine	µg/L	0.98
1,2-dichloroethane	µg/L	3,388
1,1-dichloroethylene	µg/L	108.9
Dichlorobromomethane	µg/L	750.2
Dichloromethane	mg/l	54.45
1,3-dichloropropene	µg/L	1,076.9
Dieldrin	µg/L	0.0048
2,4-dinitrotoluene	µg/L	314.6
1,2-diphenylhydrazine	µg/L	19.36
Halomethanes[10]	mg/l	15.73
Heptachlor	µg/L	0.006
Heptachlor Epoxide	µg/L	0.0024
Hexachlorobenzene	µg/L	0.025
Hexachlorobutadiene	µg/L	1,694.6
Hexachloroethane	µg/L	302.5
Isophorone	mg/l	88.33
N-nitrosodimethylamine	µg/L	883.3
N-nitrosodi-N-propylamine	µg/L	45.98
N-nitrosodiphenylamine	µg/L	302.5
PAHs[11]	µg/L	1.06
PCBs[12]	µg/L	0.0023
TCDD equivalents[13]	µg/L	0.00000047
1,1,2,2-tetrachloroethane	µg/L	278.3
Tetrachloroethylene	µg/L	242

Parameter	Unit	30-Day Average
Toxaphene	µg/L	0.025
Trichloroethylene	µg/L	3,267
1,1,2-trichloroethane	µg/L	1,137.4
2,4,6-trichlorophenol	µg/L	35.09
Vinyl Chloride	µg/L	4,356

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

[8] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[9] 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.

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

[11] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

[12] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[13] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity 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

ii. The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point No. 001, when discharging desalination facility brine through the outfall, with compliance measured at Monitoring Location EFF-001B, as described in the attached MRP.

Table 10a. Effluent Limitations for the Protection of Marine Aquatic Life – With Desalination Brine Discharge

Parameter	Units	Effluent Limitation		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Arsenic, Total Recoverable	µg/L	228	1,308	3,468
Cadmium, Total Recoverable	µg/L	45	180	450
Chromium VI, Total Recoverable[1]	µg/L	90	360	900

Parameter	Units	Effluent Limitation		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Copper, Total Recoverable	µg/L	47	452	1,262
Lead, Total Recoverable	µg/L	90	360	900
Mercury, Total Recoverable	µg/L	1.78	7.18	17.98
Nickel, Total Recoverable	µg/L	225	900	2,250
Selenium, Total Recoverable	µg/L	675	2,700	6,750
Silver, Total Recoverable	µg/L	24.46	118.96	307.96
Zinc, Total Recoverable	µg/L	548	3,248	8,648
Cyanide, Total Recoverable[2]	µg/L	45	180	450
Total Chlorine Residual[3]	µg/L	90	360	2,700
Ammonia (expressed as nitrogen)	mg/l	27	108	270
Acute Toxicity	TUa	---	1.62	---
Chronic Toxicity	TUc	---	45	---
Phenolic Compounds (non-chlorinated)	µg/L	1,350	5,400	13,500
Chlorinated Phenolics	µg/L	45	180	450
Endosulfan	µg/L	0.41	0.81	1.22
Endrin	µg/L	0.09	0.18	0.27
HCH	µg/L	0.18	0.36	0.54
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

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

[2] If the Discharger can demonstrate to the satisfaction of the Regional Water Board 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 Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

[4] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[5] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[6] The instantaneous maximum shall apply to grab sample determinations.

Table 10b. Effluent Limitations for the Protection of Human Health - With Desalination Brine Discharge

Parameter	Unit	30-Day Average
Noncarcinogens		
Acrolein	µg/L	9,900
Antimony	mg/l	54
Bis(2-chloroethoxy) Methane	µg/L	198
Bis(2-chloroisopropyl) ether	mg/l	54
Chlorobenzene	mg/l	25.65
Chromium (III)	mg/l	8,550
Di-n-butyl Phthalate	mg/l	157.5
Dichlorobenzenes[7]	mg/l	229.5
Diethyl Phthalate	mg/l	1,485
Dimethyl Phthalate	mg/l	36,900
4,6-Dinitro-2-Methylphenol	µg/L	9,900
2,4-Dinitrophenol	µg/L	180
Ethylbenzene	mg/l	184.5
Fluoranthene	µg/L	675
Hexachlorocyclopentadiene	µg/L	2,610
Nitrobenzene	µg/L	220.5
Thallium	µg/L	90
Toluene	mg/l	3,825
Tributyltin	µg/L	0.06
1,1,1-Trichloroethane	mg/l	24,300
Carcinogens		
Acrylonitrile	µg/L	4.5
Aldrin	µg/L	0.001
Benzene	µg/L	265
Benzidine	µg/L	0.003
Beryllium	µg/L	1.48
Bis(2-chloroethyl) Ether	µg/L	2.02
Bis(2-ethlyhexyl) Phthalate	µg/L	157.5
Carbon Tetrachloride	µg/L	40.5
Chlordane[8]	µg/L	0.001
Chlorodibromethane	µg/L	3.387
Chloroform	µg/L	5,850
DDT[9]	µg/L	0.0076
1,4-Dichlorobenzene	µg/L	810
3,3'-Dichlorobenzidine	µg/L	0.36
1,2-Dichloroethane	µg/L	1,260
1,1-Dichloroethylene	µg/L	40.5
Dichlorobromomethane	µg/L	279
Dichloromethane	mg/l	20.25
1,3-Dichloropropene	µg/L	400.5
Dieldrin	µg/L	0.0018
2,4-Dinitrotoluene	µg/L	117
1,2-Diphenylhydrazine	µg/L	7.2
Halomethanes[10]	µg/L	5,850

Parameter	Unit	30-Day Average
Heptachlor	µg/L	0.0023
Heptachlor Epoxide	µg/L	0.0009
Hexachlorobenzene	µg/L	0.009
Hexachlorobutadiene	µg/L	630
Hexachloroethane	µg/L	112.5
Isophorone	mg/l	32.85
N-Nitrosodimethylamine	µg/L	328.5
N-Nitrosodi-N-propylamine	µg/L	17.1
N-Nitrosodiphenylamine	µg/L	112.5
PAHs[11]	µg/L	0.396
PCBs[12]	µg/L	0.00086
TCDD Equivalents[13]	µg/L	0.00000018
1,1,2,2-Tetrachloroethane	µg/L	103.5
Tetrachloroethylene	µg/L	90
Toxaphene	µg/L	0.0095
Trichloroethylene	µg/L	1,215
1,1,2-Trichloroethane	µg/L	423
2,4,6-Trichlorophenol	µg/L	13.05
Vinyl Chloride	µg/L	1,620

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

[8] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[9] 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.

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

[11] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

[12] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[13] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

d. Percent Removal: The average monthly percent removal of CBOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

e. Total Coliform Organisms. Effluent total coliform organisms shall not exceed:

i. 2,300 most probable number (MPN) per 100 mL, as a 7-day median; and

ii. 16,000 MPN/100 mL, more than once in any 30-day period.

f. Fecal Coliform Organisms. Effluent fecal coliform organisms shall not exceed:

i. 460 MPN/100 mL, as a 7-day median; and

ii. 3,200 MPN/100 mL, more than once in any 30-day period.

B. Land Discharge Specifications – Not Applicable

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 (DHS) regulations at tittle 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 within the waste field where initial dilution is completed. The Regional Water Board may require the Discharger to investigate the cause of an exceedance in the receiving water before determining whether the Discharger caused a violation of the receiving water limitation.

1. Bacterial Characteristics

a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is 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:

i. 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:

1) Total coliform density shall not exceed 1,000 per 100 mL:

2) Fecal coliform density shall not exceed 200 per 100 mL; and

3) Enterococcus density shall not exceed 35 per 100 mL.

ii. Single Sample Maximum;

1) Total coliform density shall not exceed 10,000 per 100mL;

2) Fecal coliform density shall not exceed 400 per 100 mL; and

3) Enterococcus density shall not exceed 104 per 100 mL.

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

b. California Department of Public Health Standards

CDPH has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the California Code of Regulations (CCR), Title 17, Section 7958, and they are identical to the objectives contained in subsection a. above. When a public beach or public water-contact sports area

fails to meet these standards, CDPH or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. The CDPH regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

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

c. Shellfish Harvesting Standards

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

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

d. Physical Characteristics

i. Floating particulates and grease and oil shall not be visible on ocean surface.

ii. The discharge of “waste” shall not cause aesthetically undesirable discoloration of the ocean surface.

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

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

e. Chemical Characteristics

i. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally[OP], or fall below 5.0 mg/L[BP], as the result of the discharge of oxygen demanding “waste” materials.

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

iii. The dissolved sulfide concentrations of water in and near sediments shall not be “significantly” increased above that present under natural conditions.

iv. The concentrations of substances set forth in Chapter II, Table B of the 2005 Ocean Plan shall not be increased in marine sediments to levels which would “degrade” indigenous biota.

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

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

vii. Numeric Water Quality Objectives

1) Table B water quality objectives apply to all dischargers within the jurisdiction of the Ocean Plan.

2) Table B water quality objectives listed in Chapter II, Table B of the 2005 Ocean Plan.

f. Biological Characteristics

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

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

iii. 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.

g. Radioactivity

i. Discharge of radioactive "waste" shall not "degrade" marine life.

ii. 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 which presents a hazard to human, plant, animal, or aquatic life.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

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

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, 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

a. 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.A.1.c of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan.

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

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow 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/600/2-88-062, and shall describe, at a minimum:

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; 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 11. Toxicity Reduction Evaluation Schedule

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

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Goal

The goal of the Pollutant Minimization Program is to reduce potential sources of Ocean Plan Table B toxic pollutants through pollutant minimization (control) strategies, including pollution prevention measures, to maintain effluent concentrations at or below the effluent limitation.

b. Determining the Need for a Pollutant Minimization Program

i. The Discharger shall develop and implement a Pollutant Minimization Program if:

1) A calculated effluent limitation is less than the reported Minimum Level,

2) The concentration of the pollutant is reported as DNQ, and

3) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity;

results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

ii. Alternatively, the Discharger shall develop and implement a Pollutant Minimization Program if:

1) A calculated effluent limitation is less than the Method Detection Limit (MDL),

2) The concentration of the pollutant is reported as ND, and

3) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity; results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

c. Elements of a Pollutant Minimization Program

A Pollutant Minimization Program shall include actions and submittals acceptable to the Regional Water Board including, but not limited to, the following.

i. An annual review and semiannual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable pollutant in influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant in the effluent at or below the calculated effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy;

v. An annual status report that shall be sent to the Executive Officer that includes:

1) All Pollutant Minimization Program monitoring results for the previous year;

2) A list of potential sources of the reportable pollutant;

3) A summary of all actions taken in accordance with the control strategy; and

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

4. Construction, Operation and Maintenance Specifications

The Facility shall be operated as specified under Standard Provision D of Attachment D.

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 USEPA 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 Part 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. In the event that the Discharger is not in compliance with conditions or requirements of this permit affected by the pretreatment program, 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. R3-2010-0011.

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 Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of

sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger is enrolled under the General Permit.

7. Compliance Schedules – Not Applicable

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:

1. 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.**

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

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

a. Chronic Toxicity (TUc)

   Expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ocean Waters are the territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-

benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

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

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

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

Shellfish are organisms identified by the California Department of Public Health 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.

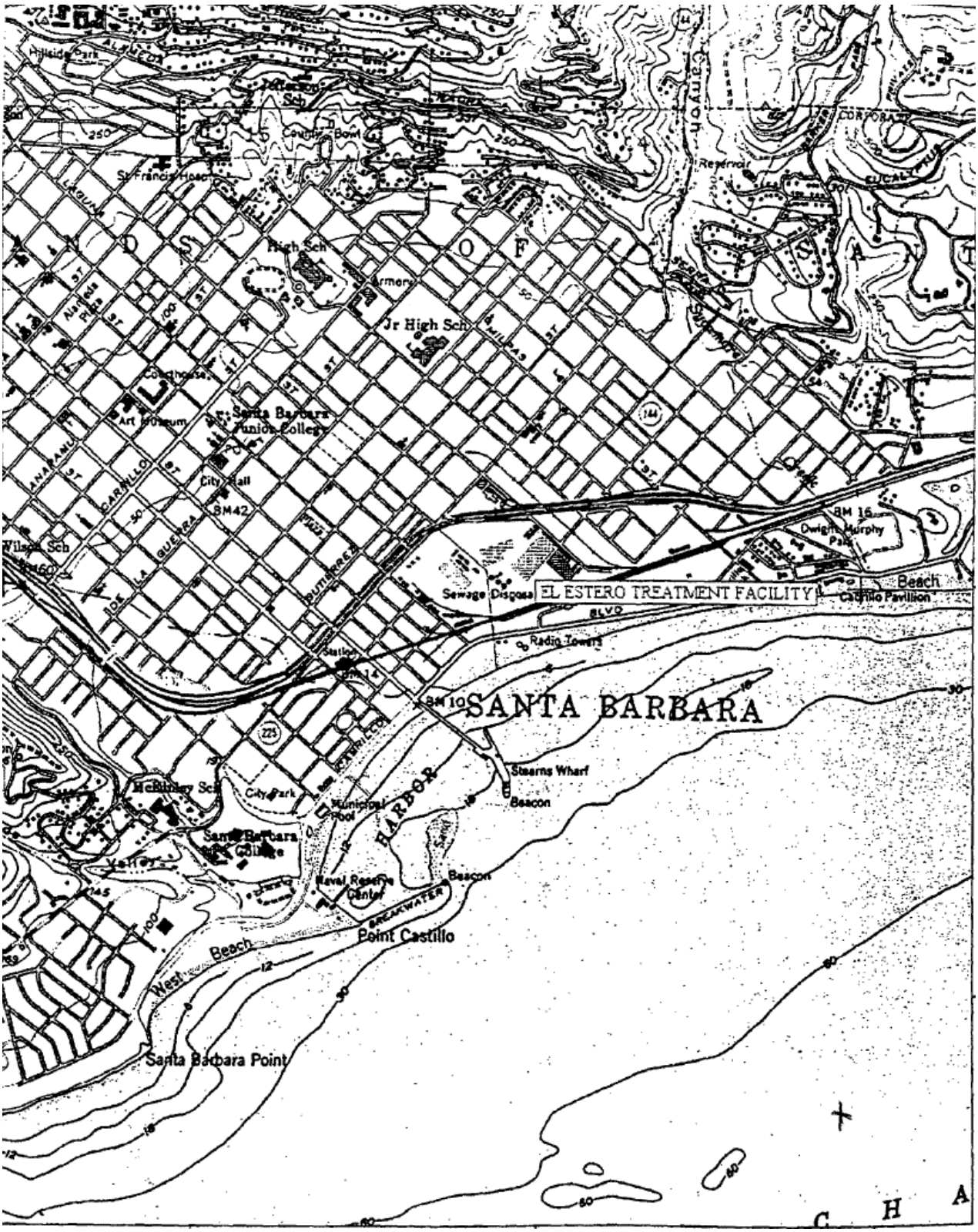
Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

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.)

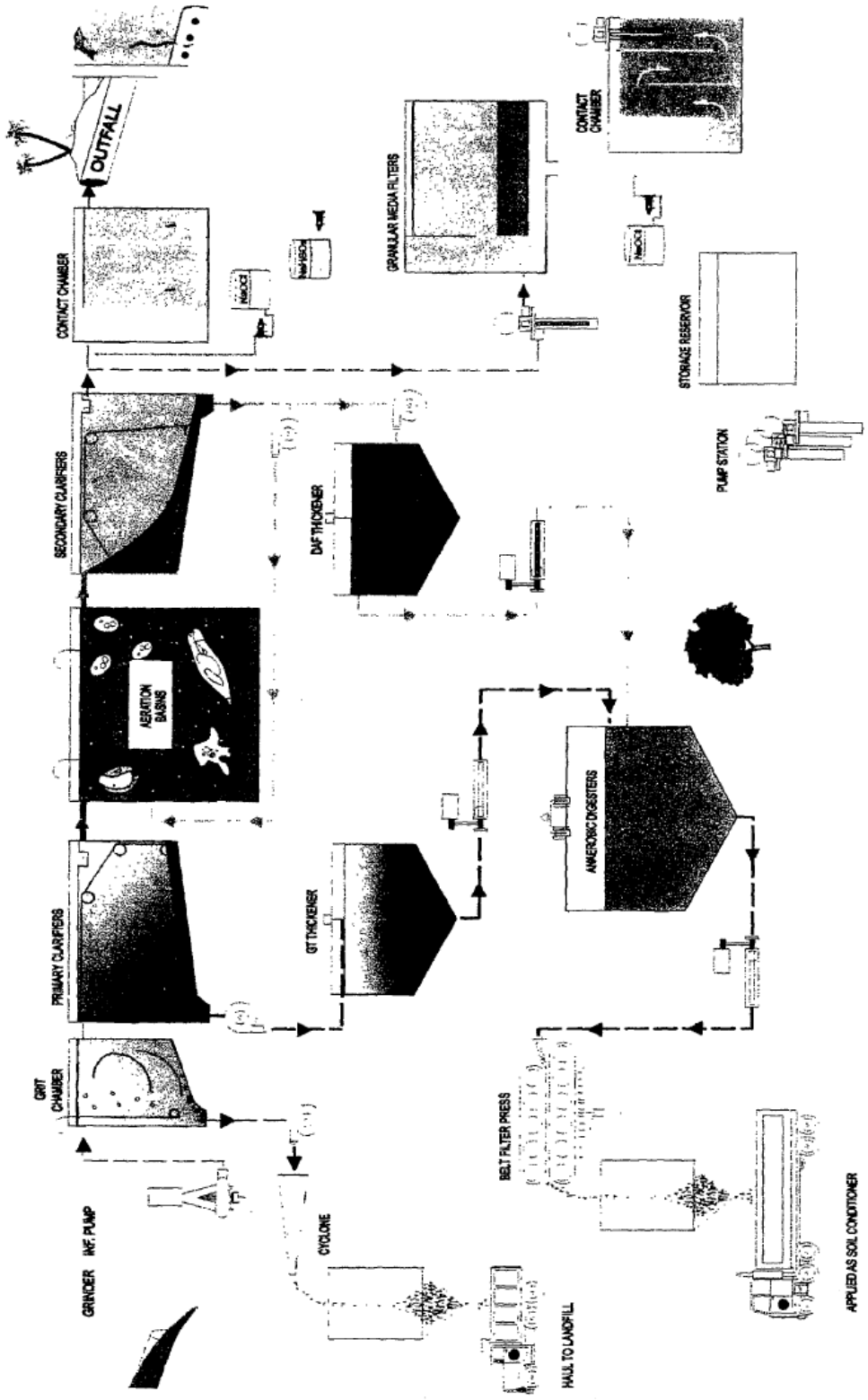
Waste: As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. 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, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR § 122.41(a).)

2. 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).)

B. 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).)

C. 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).)

D. 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).)

E. Property Rights

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

2. 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).)

F. Inspection and Entry

The Discharger shall allow the Regional 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):

1. 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));

2. 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));

3. 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

4. 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).)

G. Bypass

1. Definitions

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

   b. “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).)

2. 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 Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2).)

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

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

   b. There were no feasible alternatives to the bypass, such as the 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

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii).)

5. Notice

   a. 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).)

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

H. 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).)

1. 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 Standard Provisions – Permit Compliance I.H.2 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).)

2. 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)):

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

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

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

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

3. 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).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. 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).)

B. 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).)

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

IV. STANDARD PROVISIONS – RECORDS

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

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional 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 Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR § 122.22(a)(3).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));

    b. 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

    c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 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 Regional 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).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 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).)

C. Monitoring Reports

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

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

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

4. 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).)

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall

also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR § 122.41(l)(6)(i).)

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

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

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

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

F. Planned Changes

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

1. 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

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR § 122.41(l)(7).)

I. 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 Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional 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.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 CFR § 122.42(b)):

1. 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

2. 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).)

3. 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).)

ATTACHMENT D-1 - CENTRAL COAST REGIONAL WATER BOARD STANDARD PROVISIONS (JANUARY 1985)

I. CENTRAL COAST GENERAL PERMIT CONDITIONS

A. Central Coast Standard Provisions – Prohibitions

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

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

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

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

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

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

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

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

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

B. Central Coast Standard Provisions – Provisions

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

2. 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.

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

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

5. 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.

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

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

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

    c. 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,

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

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

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

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

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

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

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

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

9. 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:

    a. 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.)

    b. 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.

10. 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.

11. 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.

C. 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 arsenic is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of arsenic must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions I.G.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 I.G.14.).

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

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

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

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

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

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

D. 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 – C.1 above, and Federal Standard Provision – Monitoring III.B. 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 V.B., 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 II.C.

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 IV.C.

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 B.9., above), 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 C 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."

E. Central Coast Standard Provisions – General Pretreatment Provisions

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

   a. By the date specified therein;

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

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

F. 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.

G. 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: (1) 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 V.B.;

   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 G.2. and instantaneous maximum limits.

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

7. "Incompatible wastes” are:

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

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

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

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

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

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

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

$$\text{Log Mean} = (C1 \times C2 \times ... \times Cn)1/n,$$

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:

$$\text{mass emission rate (lbs/day)} = 8.34 \times Q \times C; \text{ and,}$$

$$\text{mass emission rate (kg/day)} = 3.79 \times Q \times C,$$

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 G.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 G.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.

    $$\text{Average} = (X1 + X2 + ... + Xn) / n$$

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

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

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

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

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

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

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

20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass". It does not mean economic loss caused by delays in production.

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

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

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

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

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

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

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

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 Quality Control Board (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 California Department of Public Health (CDPH), 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.)

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

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

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

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

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

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

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements of this Order. The shoreline and ocean monitoring stations have previously been identified only by letter or number designations (e.g., A-D and 001-004). Designation of monitoring locations is being modified for consistency with other current permits issued by the Regional Water Board.

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 Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Influent wastewater prior to treatment and following all significant inputs to the collection system or the headworks of untreated wastewater, upstream of any in-plant return flows, where representative samples of wastewater influent can be obtained.
EFF-001	EFF-001A-	Location where representative sample of the secondary treated wastewater effluent can be collected, after treatment and chlorination/dechlorination steps and prior to commingling with any other waste streams, before contact with the receiving water.

EFF-001	EFF-001B	Location where a representative sample of the final effluent (secondary treated wastewater and desalination brine) discharged through the ocean outfall can be collected prior to contact with the receiving water.
--	RSW-A	Receiving water station – Surf at Leadbetter Beach
--	RSW-C	Receiving water station – Surf at Stearns Wharf Pier
--	RSW-D	Receiving water station – Surf at the end of Santa Barbara Street
--	RSW-F	Receiving water station – Surf opposite Palm Park restroom
--	RSW-H	Receiving water station – Surf opposite bird refuge
--	RSW-1	Receiving water station – Near new outfall diffuser
--	RSW-2	Receiving water station – 1,400' north from the end of new outfall
--	RSW-3	Receiving water station – Near end of old outfall
--	RSW-4	Receiving water station – 6,500' west of new outfall, at the same depth contour as RSW-1
--	RSW-5	Receiving water station –1,400' east of the new outfall
--	RSW-6	Receiving water station – 1,400' south of the new outfall
--	RSW-7	Receiving water station – 1,400' west of the new outfall
--	RSW-8	Receiving water station – 8,000' east of the new outfall, at the same depth contour as RSW-1

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the treatment facility at Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	MGD	Calculated	1/Day
pH	pH Units	Metered	Continuously[2]
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)	mg/L	24-Hr Composite	1/Month
Total Suspended Solids (TSS)	mg/L	24-Hr Composite	1/Month
Ocean Plan Table B Constituents[3] and Remaining Priority Toxic Pollutants[4]	Units per Table B	24-Hr Composite	October 2014[5]

[1] The Discharger shall report the daily average and daily maximum flow for each day. In addition, the Discharger shall report the mean daily flow for each month.

[2] The Discharger shall report the daily maximum value, daily minimum pH value, and daily mean for each day. It should be noted that an average pH value should be based on the hydrogen ion concentration, and not a direct mean of the pH value.

[3] Those pollutants identified in Table B of the Ocean Plan (2005). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) 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.

[4] See Table E-4a below for Remaining Priority Toxic Pollutants.

[5] Influent monitoring shall be coordinated during the same time frame as effluent sampling scheduled in section IV.B of this MRP.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001A

1. The Discharger shall monitor treated wastewater at Monitoring Location EFF-001A, prior to the commingling with desalination plant waste brine, in accordance with the following schedule:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MGD	Metered	Continuous
$CBOD_5$[1]	mg/L	24 Hr Composite	Once Every 6 Days
TSS[1]	mg/L	24 Hr Composite	1/Day
pH	pH units	Grab	1/Day
Total Residual Chlorine[2]	mg/L	Meter	Continuous
Temperature	°F	Grab	Once Every 6 Days
Total Coliform Organisms[3], [4]	MPN/100 mL	Grab	1/Day
Fecal Coliform Organisms[3], [4]	MPN/100 mL	Grab	1/Day
Ammonia (as N)	mg/L	Grab	1/Month

[1] The Discharger shall calculate and provide the monthly average percent removal of $CBOD_5$ and TSS based on influent and effluent loading over each month.

[2] The Discharger shall review continuous monitoring data and submit a summary (daily range and daily average) to the Regional Water Board with monthly discharge monitoring reports (DMRs).

[3] For all bacterial analyses, sample dilutions should be performed so the range of bacterial density values extends from 2 to 16,000/100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. The detection methods used for coliforms shall be those presented in Table 1A of 40 CFR 136 (revised edition of July 1, 2003, or later), unless alternate methods have been approved in advanced by USEPA pursuant to 40 CFR 136.

[4] The Discharger shall notify the California Department of Public Health Preharvest Shellfish Sanitation Unit, the Regional Water Board, the Santa Barbara County Environmental Health Services Department, and any shellfish leaseholders with active shellfish growing operations in the area as soon as possible, and no more than 12-hours after the Discharger becomes aware of, when there is a loss of disinfection or if three consecutive total effluent coliform bacteria tests exceed 16,000 per 100 mL.

B. Monitoring Location EFF-001B

1. The Discharger shall monitor treated wastewater and desalination plant brine at Monitoring Location EFF-001B, in accordance with the following schedule:

Table E-4. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	mg	Metered	1/Day
Salinity	mg/L	Grab	1/Week[1]
Turbidity	NTU	Grab	1/Week
pH	pH units	Grab	1/Week
Total Chlorine Residual[2]	mg/L	Grab	1/Day
Oil and Grease	mg/L	Grab	1/6-Days
Settleable Solids	ml/L	Grab	1/Week
Ammonia (as N)	mg/L	Grab	2/Year[4]
Acute Toxicity[3]	TUa	24-hr Composite	4/Year[5]
Chronic Toxicity[3]	TUc	24-hr Composite	2/Year[4]
Tributyltin	µg/L	24-hr Composite	2/Year[4]
Phenolic Compounds (non-chlorinated)	µg/L	Grab	4/Year[5]
Chlorinated Phenolic Compounds	µg/L	Grab	4/Year[5]
Total Sulfides	mg/L	Grab	4/Year[5]
Ocean Plan Table B Metals[6]	µg/L	24-hr Composite	Annually (September)
Ocean Plan Table B Pollutants[7]	µg/L	24-hr Composite	Annually (September)

[1] The Discharger shall conduct salinity monitoring once per week during weeks when desalination brine is discharged from the Facility. The Discharger may reduce salinity monitoring to once a calendar year during years in which desalination brine is not discharged from the Facility.

[2] Grab samples for compliance with the total chlorine residual effluent limitations may be collected at the last accessible measurement location before discharge to the Ocean.

[3] Whole effluent, acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V of this MRP. The minimum initial dilution for the Facility is currently calculated as 120:1 without desalination facility brine discharge, and 44:1 with brine discharge. Acute and chronic toxicity testing is required for ratios above 100:1. If the desalination facility is utilized and the minimum initial dilution ratio falls below 100:1, then only chronic toxicity testing is required for those periods.

[4] Semi-annual monitoring shall be conducted during the months of March and December

[5] Quarterly monitoring shall be conducted during the months of March, June, September, and December.

[6] Those eleven metals (Sb, As, Cd, Cr^{+3}, Cr^{+6}, Cu, Pb, Hg, Ni, Se, Ag, and Zn) with applicable water quality objectives established by Table B of the Ocean Plan. Analysis shall be for total recoverable metals.

[7] Those pollutants identified in Table B of the Ocean Plan (2005). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the

Ocean Plan. The Discharger shall 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. Monitoring for the Table B pollutants shall occur one time per year. Analysis for all Table B pollutants can coincide with monitoring for the Table B metals so that analysis for metals is not duplicated.

Table E-4a: Remaining Priority Toxic Pollutants

From 40 CFR 131.36 (7-1-03 Edition), and EPA Application Form 3510-2A (Rev. 1-99)

Parameter	Units	Sample Type	Min. Sampling Frequency
Acenapthene	µg/L	24-hr Composite	Annually (September)
1,2,4,-Trichlorobenzene	µg/L	24-hr Composite	Annually (September)
2-Chloronapthalene	µg/L	24-hr Composite	Annually (September)
2,6-Dinitrotoluene	µg/L	24-hr Composite	Annually (September)
4-Chlorophenyl Phenyl Ether	µg/L	24-hr Composite	Annually (September)
4-Bromophenyl Phenyl Ether	µg/L	24-hr Composite	Annually (September)
Naphthalene	µg/L	24-hr Composite	Annually (September)
Butylbenzyl Phthalate	µg/L	24-hr Composite	Annually (September)
Di-N-Octyl Phthalate	µg/L	24-hr Composite	Annually (September)
Benzo(a)Anthracene	µg/L	24-hr Composite	Annually (September)
Benzo(ghi)Perylene	µg/L	24-hr Composite	Annually (September)
P-Chloro-M-Cresol	µg/L	24-hr Composite	Annually (September)
2-Chlorophenol	µg/L	24-hr Composite	Annually (September)
2,4-Dichlorophenol	µg/L	24-hr Composite	Annually (September)
2,4-Dimethylphenol	µg/L	24-hr Composite	Annually (September)
4,6-Dinitro-O-Cresol	µg/L	24-hr Composite	Annually (September)
2-Nitrophenol	µg/L	24-hr Composite	Annually (September)
4-Nitrophenol	µg/L	24-hr Composite	Annually (September)
Pentachlorophenol	µg/L	24-hr Composite	Annually (September)
Phenol	µg/L	24-hr Composite	Annually (September)
1,1-Dichloroethane	µg/L	24-hr Composite	Annually (September)
Chloroethane	µg/L	24-hr Composite	Annually (September)
Endrin Aldehyde	µg/L	24-hr Composite	Annually (September)
Trans-1,2-Dichloroethylene	µg/L	24-hr Composite	Annually (September)
1,2-Dichloropropane	µg/L	24-hr Composite	Annually (September)
1,3-Dichloropropylene	µg/L	24-hr Composite	Annually (September)
Methylene Chloride	µg/L	24-hr Composite	Annually (September)
2-Chloroethyl Vinyl Ether	µg/L	24-hr Composite	Annually (September)

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

Compliance with acute toxicity objective shall be determined using a U.S. Environmental Protection Agency (USEPA) approved method 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, USEPA Office of Water, EPA-821-R-02-012 (2002) 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 Tests – Acute Toxicity

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) 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 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.

B. 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 concentration (NOEC) 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 sell development; percent survival	1	a, c
Urchin, *Strongylocentrotus purpuratus;* sand dollar, *Dendraster excentricus*	percent normal development; percent fertilization	1	a, c
Shrimp, *Homesimysis costata*	percent survival; growth	1	a, c
Shrimp*, Menidia beryllina*	percent survival; fecundity	2	b, d
Topsmelt, *Atherinops affinis*	larval growth rate; percent survival	1	a, c
Silverside, *Menidia beryllina*	larval growth rate; percent survival	2	b, d

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

[2] Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. 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. Webber, C.I., W.B. Horning II, 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.

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 Regional 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 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 121 TUc shall trigger the Toxicity Reduction Evaluation (TRE) requirement of this 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. 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, USEPA Office of Water, EPA821-R-02-012 (2002) or the latest edition, or, 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 the 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 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.

   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, will be completed.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS

The Discharger shall comply with Waste Discharge Requirements and Master Reclamation Permit Order No. 97-44 for reclaimed water production and usage. The Discharger shall comply with applicable State and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the Department of Health Services at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Criteria.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Receiving Water Monitoring

1. The Discharger shall make monthly visual observations of the receiving water at Monitoring Locations RSW-A, RSW-C, RSW-D, RSW-F, and RSW-H and note the presence or absence of the following:

   a. Floating or suspended matter;

   b. Discoloration;

   c. Foaming; and

   d. Marine plant and animal life.

2. The Discharger shall make weekly visual observations of the receiving water and shoreline at Monitoring Locations RSW-A, RSW-C, RSW-D, RSW-F, and RSW-H and note the presence or absence of the following:

   a. People on the beach;

   b. People in the water;

   c. Evidence of divers present;

   d. Fishing activity on and off shore near outfall; and

3. If three consecutive effluent total coliform and/or fecal coliform bacteria tests, in any combination, exceed 16,000 per 100 mL or 3,200 per 100 mL, respectively, samples of the receiving water shall be collected at Monitoring Locations RSW-A, RSW-C, RSW-D, RSW-F, and RSW-H and analyzed as specified in Table E-7:

Table E-7. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Coliform	MPN/100 mL	Grab	1/6-Days[1], [2]
Fecal Coliform	MPN/100 mL	Grab	1/6-Days[1], [2]
Enterococcus	MPN/100 mL	Grab	1/6-Days[1], [2]
Visual Observations[3]	--	--	1/6-Days[1]

[1] Monitoring shall continue until the effluent bacteria concentrations return to compliance for a minimum of 14-days.

[2] Sample dilutions shall be performed so the range of values extends from 20 to 160,000/100 mL. Detection methods used for total and fecal coliform shall be those presented in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*, or any improved method determined appropriate by the Regional Water Board and approved by USEPA. Detection methods used for Enterococcus shall be those presented in USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, or any improved method determined appropriate by the Regional Water Board and approved by USEPA.

[3] Monitoring shall include observations of wind direction, wind speed, weather conditions (cloudy, sunny, rainy), occurrence of rainfall over the preceding 7-days, sea conditions, longshore currents (e.g., direction), and tidal conditions (e.g., high, slack, or low tide). Observations of water discoloration, floating oil and grease, turbidity, odor, materials of sewage origin in the water or on the beach, and temperature (°C) shall be recorded and reported.

B. Benthic Sediment Monitoring

Benthic sediment monitoring shall be conducted in 2013.

Benthic monitoring shall assess the temporal and spatial occurrence of pollutants in local marine sediments and evaluate the physical and chemical quality of the sediments in relation to the outfall. At all benthic monitoring stations, one grab sample shall be collected using a 0.1 m^3 Van Veen grab sampler.

Sediment samples shall be analyzed according to *Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods* (EPA 430/9-86-004, 1987) and *Analytical Methods for EPA Priority Pollutants and 301(h) Pesticides in Estuarine and Marine Sediments* (EPA 503-6-90-004, 1986). When processing samples for analysis, macrofauna and large remnants greater than 0.25 inches (0.64 cm) should be removed, taking care to avoid contamination.

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

Benthic monitoring results shall be included in the Annual Report with a complete discussion of benthic sediment survey results and (possible) influence of the discharge on sediment conditions in the study area, if possible. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns observed for raw sediment parameters. The Annual Report should also present an analysis of natural variation in sediment conditions, etc., which could influence the validity of study results. The Discharger's sediment results may also be compared with the results of other applicable studies, numerical protective levels, etc., as appropriate. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods if available.

Sampling specified in the following table shall occur at the ocean bottom directly below stations RSW-1 through RSW-8.

Table E-8. Benthic Sediment Monitoring Requirements

Parameter	Units
Sulfides (at pH 7)	mg/kg
Particle size distribution (including % retained on #200 sieve)	Phi (% volume)
Organic Matter (volatile solids or total organic carbon)	mg/kg

Parameter	Units
Total Coliform Organisms	#/100 g
Fecal Coliform Organisms	#/100 g
Biochemical Oxygen Demand	mg/kg
Arsenic, Total Recoverable	mg/kg
Cadmium, Total Recoverable	mg/kg
Total Chromium, Total Recoverable	mg/kg
Chromium^{+6}, Total Recoverable	mg/kg
Copper, Total Recoverable	mg/kg
Lead, Total Recoverable	mg/kg
Nickel, Total Recoverable	mg/kg
Mercury, Total Recoverable	mg/kg
Silver, Total Recoverable	mg/kg
Zinc, Total Recoverable	mg/kg
Iron	mg/kg
Total Kjeldahl Nitrogen	mg/kg
Ammonia	mg/kg

C. Benthic Biota Monitoring

Benthic infaunal monitoring shall assess the temporal and spatial status of local benthic communities in relation to the outfall. Benthic biota monitoring shall occur at the same time as benthic sediment monitoring. Sampling shall be conducted as follows:

1. At least four benthic samples shall be taken at each of the four ocean monitoring stations (RSW-1, RSW-4, RSW-7 and RSW-8) using a 0.1 m^3 Van Veen grab sampler.

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

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

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

Infaunal Trophic Index (ITI) shall be reported. Statistical analyses shall include multivariate techniques consisting of classification and ordination analysis. The Annual Report should also present an analysis of natural community variation including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods, if available.

D. Chemical Analysis of Biota

Chemical analysis of biota monitoring shall occur at the same time as benthic sediment monitoring.

Six specimens of Pink Surfperch (Zalembius rocaceus) and Giant Red Sea Urchin (Stronglyocentrotus fimciscanus) shall be collected from a control area and the outfall area at RSW-1, RSW-2, RSW-5, RSW-6, and RSW-7. Species of the Giant Red Sea Urchin shall be attached to the outfall itself, or nearby substrate.

The control area is to be selected by the Discharger near one of the Channel Islands. The control site should provide similar habitats and have similar species as the outfall area, and must be approved by the Executive Officer before sampling. Its location can be adjusted if necessary to obtain the required samples.

If one or both of the species cannot be obtained as required, or the Discharger justifies another method to fulfill the requirements, the Executive Officer may approve an alternate sampling species and/or procedure. The standard and total length, wet weight, sex, and physiological condition of each specimen shall be recorded. Tissue shall be combined in a manner to produce sufficient material for two separate analyses for each parameter from each sampling location. Each of these duplicate composite samples shall be separately analyzed for all toxic substances identified in the effluent and must include as a minimum: cadmium, total chromium, copper, lead, mercury, nickel, silver, and zinc. Specimens shall be stored in polyethylene at -20 °C prior to analysis.

Fish liver composites shall be analyzed for all trace metals except mercury. Fish flesh composites of dorsal muscle tissue shall be analyzed for mercury. Tissue for macro-invertebrate analysis to be approved by the Executive Officer.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids Monitoring

1. The following information shall be submitted with the Annual Report required by Central Coast Regional Water Board Standard Provision D-8. Adequate detail shall be included to characterize biosolids in accordance with 40 CFR Part 503.

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

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

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

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

   i. For landfill disposal include: 1) the Regional Board WDR numbers that regulate the landfills used, 2) the present classifications of the landfills used, and 3) the names and locations of the facilities receiving biosolids.

   ii. For land application include: 1) the location of the site(s), 2) the Regional Board's WDR numbers that regulate the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), and 4) subsequent uses of the land.

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

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

f. The annual biosolids report shall be submitted by February 19th, as specified in section X.D.3 of this MRP.

2. A representative sample of residual solids (biosolids) shall be obtained from the last point in the handling process and shall be analyzed for total concentrations for comparison with TTLC criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the STLC limit for that substance.

Table E-9. Biosolids Monitoring Requirements

Parameter	Units	Sample Type	Minimum Frequency of Sampling
Quantity	Tons or Cubic Yards	Measured	As Transported
Location of Disposal	Site		As Transported
Moisture Content	Percent	Grab	[1]
Total Kjeldahl Nitrogen	mg/kg	Grab	[1]

Parameter	Units	Sample Type	Minimum Frequency of Sampling
Ammonia (as N)	mg/kg	Grab	[1]
Nitrate (as N)	mg/kg	Grab	[1]
Total Phosphorus	mg/kg	Grab	[1]
pH	Standard Units	Grab	[1]
Oil & Grease	mg/kg	Grab	[1]
Arsenic	mg/kg	Grab	[1]
Boron	mg/kg	Grab	[1]
Cadmium	mg/kg	Grab	[1]
Copper	mg/kg	Grab	[1]
Chromium	mg/kg	Grab	[1]
Lead	mg/kg	Grab	[1]
Nickel	mg/kg	Grab	[1]
Mercury	mg/kg	Grab	[1]
Molybdenum	mg/kg	Grab	[1]
Selenium	mg/kg	Grab	[1]
Silver	mg/kg	Grab	[1]
Zinc	mg/kg	Grab	[1]
Priority Pollutants[2]	mg/kg	Grab	1/Year
Paint Filter Test	--	Grab	[1], [3]

[1] Once per 60 days, during the months of February, April, June, August, October, and December. The results shall be submitted with the appropriate DMR for the monitoring period.
[2] As identified under section IX.B (Pretreatment Monitoring) of this MRP.
[3] Required only if sludge is disposed in a landfill. Shall be analyzed per SW-846, Method 9095.

B. Pretreatment Monitoring

1. At least once per year, influent, effluent (at EFF-001A, prior to comingling with desalination brine), and biosolids shall be sampled and analyzed for the priority pollutants identified under section 307(a) of the Clean Water Act. The Discharger shall summarize analytical results from representative, flow-proportioned, 24-hour composite sampling of the plant's influent and effluent for those pollutants EPA has identified under CWA section 307(a) which are known or are 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 Part 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 non-priority pollutants for 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 Part 136 and amendments thereto. Biosolids samples shall be collected from the last point in solids handling before disposal. If biosolids is dried on-site, samples shall be composited from at least twelve discrete samples from twelve representative locations. Pretreatment monitoring may be coordinated with other required monitoring to minimize duplicate effort and expense.

2. A discussion of upset, interference, or pass-through incidents, if any, at the wastewater treatment plant which the Permittee knows or suspects were caused by industrial users of the collection system. The discussion shall include the cause(s) of the incidients, corrective actions taken, and the name and address of the industrial user(s) responsible. Discussions shall also include a review of applicable pollutant limitations to determine whether any additional limitations or changes to existing requirements may be necessary to prevent upset, pass-through, interference, or noncompliance with biosolids disposal requirements.

3. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports, and the cumulative number of industrial user responses.

4. An updated list of the Permittee's industrial users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to Federal Categorical Standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local discharge limitations that are more stringent than the Federal Categorical Standards. The Discharger shall also list the non-categorical industrial users that area subject only to local discharge limitations. The Permittee shall characterize the compliance status of each industrial user by employing the following descriptions:

   a. In compliance with Baseline Monitoring Report requirements (where applicable);

   b. Consistently achieving compliance;

   c. Inconsistently achieving compliance;

   d. Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);

   e. On a schedule to achieve compliance (including the date final compliance is required);

   f. Not achieving compliance and not on a compliance schedule; or

   g. The Discharger does not know the industrial user's compliance status.

5. A summary of inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding industrial users. The summary shall include:

    a. Names and addresses of the industrial users subject to surveillance by the Discharger and an explanation of whether the users were inspected, sampled, or both, and the frequency of these activities at each user facility; and

    b. Conclusions or results from the inspection or sampling of each industrial user.

6. A summary of compliance and enforcement activities during the past year. The summary shall include names and addresses of the industrial users affected by the following actions:

    a. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the Federal Categorical Standards or local discharge limitations;

    b. Administrative Orders regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;

    c. Civil actions regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;

    d. Criminal actions regarding the industrial user's noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, indentify whether the violation concerned Federal Categorical Standards or local discharge limitations;

    e. Assessment of monetary penalties. For each industrial user, identify the amount of the penalties;

    f. Restriction of flow to the wastewater treatment facility; or

    g. Disconnection from the wastewater treatment facility.

7. A description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's approved Pretreatment Program, including but not limited to changes concerning:

    a. The program's administrative structure;

    b. Local industrial discharge limitations;

c. Monitoring program or monitoring frequencies;

d Legal authority or enforcement policy;

e. Funding mechanisms;

f. Resource requirements; or

g. Staffing levels.

8. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

9. A summary of public participation activities to involve and inform the public.

10. A description of any changes in biosolids disposal methods and a discussion of any concerns not described elsewhere in the report.

11. In the event that the Discharger is not incompliance with any conditions or requirements of this permit affected by the pretreatment program, including any noncompliance with pretreatment audit or compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

12. Quarterly and annual reporting shall be conducted as specified in section X.D.2 of this MRP.

C. Outfall Inspection

The Discharger shall conduct annual inspections, the same month annually (and during periods of good underwater visibility), of the outfall pipe/diffuser system to ensure the proper operation and structural integrity of the system. This inspection shall include general observations and video records of the outfall pipe/diffuser system and the surrounding ocean bottom in the vicinity of the outfall/diffuser. The inspection shall note any cracks, breaks, plugged ports, leaks and potential leaks using dye studies, if necessary. The outfall inspection will also check for possible external blockage of ports by sand and/or silt deposition. The inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. A report detailing inspection results shall be submitted to the Regional Water Board and USEPA with the Annual Report required by Central Coast Regional Water Board Standard Provision E-8.

D. Rainfall

The Discharger shall monitor and record daily rainfall (in inches), and report daily rainfall totals with each monthly DMR report.

E. Total Chlorine Used

The Discharger shall maintain daily records of the total amount (in lbs/day) of chlorinating agents used for disinfection at the Facility. Daily totals of the chlorinating agent shall be reported with each monthly DMR report.

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. The Discharger shall 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-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On …	Monitoring Period	SMR Due Date
Continuous	May 13, 2010	All	Submit with monthly SMR
Hourly	May 13, 2010	Hourly	Submit with monthly SMR
Daily	May 13, 2010	(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	1st day of calendar month through last day of calendar month	Submit with monthly SMR

Sampling Frequency	Monitoring Period Begins On …	Monitoring Period	SMR Due Date
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 April 1 or October 1 following (or on) permit effective date	October 1 through March 31, April 1 through September 31	Submit with next monthly SMR
Annually	April 1 following (or on) permit effective date	April 1 through March 31	Submit with Annual Report
Once over the term of the Permit	May 13, 2010	July through October 2013	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 Part 136.

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

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

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

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

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

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

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

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

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

c. In the event that electronic submittal via CIWQS is not available, a disk with 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:

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

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

C. Discharge Monitoring Reports (DMRs)

1. As described in section 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 Division of Water Quality c/o DMR Processing Center	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center

PO Box 100 Sacramento, CA 95812-1000	1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated 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.

2. By the 1st of May, August, November, and February of each year, quarterly pretreatment reports describing the compliance status of any industrial user characterized by descriptions in IX.B.4.c through g above shall be submitted to the Regional Water Board, State Water Board, and USEPA. The report shall identify the specific compliance status of each applicable industrial user. Quarterly reports shall briefly described compliance with pretreatment audit or compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted to the Regional Water Board only. This quarterly reporting requirement shall commence upon issuance of this Permit. Note that the fourth quarterly report may be incorporated in the annual report (each due no later than February 1st of each year). Signed copies of these reports shall be submitted to the USEAP and the State at the following addresses:

   California Regional Water Quality Control Board
   Central Coast Region
   895 Aerovista Lane, Suite 101
   San Luis Obispo, CA 93401-7906

   State Water Resource Control Board
   Regulation Unit
   PO Box 100
   Sacramento, CA 95812-0100

   USEPA, Region 9
   Clean Water Act Compliance Office
   75 Hawthorne Street
   (WTR-7)
   San Francisco, CA 94105-3901

3. By February 19th of each year, the Discharger shall submit an annual biosolids report the Regional Water Board, as specified in section IX.A of the MRP.

In addition, a copy of the biosolids report shall be submitted to the USEPA at:

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

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	**3 420108001**
Discharger	**City of Santa Barbara**
Name of Facility	**City of Santa Barbara WWTP**
Facility Address	**520 East Yanonali Street**
	Santa Barbara, CA 93103
	Santa Barbara
Facility Contact, Title and Phone	**Todd Hildoorn, Wastewater Treatment Supervisor, (805) 568-1003**
Authorized Person to Sign and Submit Reports	**Todd Hildoorn, Wastewater Treatment Supervisor, (805) 568-1003**
Mailing Address	**SAME**
Billing Address	**Kathy Richardson** **PO BOX 309, Santa Barbara, CA 93103**
Type of Facility	**Publicly Owned Treatment Works**
Major or Minor Facility	**Major**
Threat to Water Quality	**1**
Complexity	**A**
Pretreatment Program	**Yes**
Reclamation Requirements	**97-44**
Facility Permitted Flow	**11 million gallons per day (MGD) of treated secondary wastewater** **12.5 MGD of desalination brine**
Facility Design Flow	**11 MGD (for wastewater treatment plant)**
Watershed	**Pacific Ocean**
Receiving Water	**Pacific Ocean**
Receiving Water Type	**Ocean waters**

A. City of Santa Barbara (hereinafter Discharger) is the owner of the City of Santa Barbara Wastewater Treatment Facility (hereinafter Facility), which provides secondary treatment of municipal and industrial wastewater.

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

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order R3-2004-0122 which was adopted on October 22, 2004 and expired on October 22, 2009. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and 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 WDRs and NPDES permit on June 23, 2009. Supplemental information was requested on July 28, 2009 and received on August 7, 2009. A site visit was conducted on May 7, 2009, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger operates a wastewater treatment and disposal system to provide sewerage service to the City of Santa Barbra and portions of Santa Barbara County, serving a population of approximately 96,000. Secondary treatment of domestic and industrial wastewater consists of screening and grinding, aerated grit removal, primary sedimentation, activated sludge stabilization, secondary clarification, disinfection (with sodium hypochlorite) and dechlorination (with sodium bisulfite). In addition, the City owns a seawater desalination facility, which is currently deactivated. When operational, the desalination plant discharges waste brine at one of five flow rates depending on the Facility's rate of freshwater production. The waste brine discharge flow rates are 3.9, 4.1, 9.4, 10, and 12.5 MGD. The Discharger has requested continued coverage under this NPDES permit for the desalination brine, in the event that the operation of the desalination facility is needed.

The design average dry-weather flow treatment capacity of the wastewater treatment system is 11.0 million gallons per day (MGD), with a design peak flow of 19 MGD. The average influent flow from October 2004 to April 2009 was 8.02 MGD, and the average daily final effluent flow was 7.60 MGD.

Solid wastes (biosolids) are treated using gravity thickening, dissolved air floatation thickening, anaerobic digestion, and belt press dewatering. Anaerobicaly digested sludge is dewatered by a belt press system and the dewatered sludge is then conveyed to a dump truck for subsequent disposition. Dewatered biosolids are transported and land-applied.

Santa Barbara County retains ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into interceptors owned and operated by the City. The County of Santa Barbara owns five miles of mainlines

in Mission Canyon that are maintained by the City. The City and County are signatories to a Memorandum of Understanding regarding the operation and maintenance of this system.

The Collection system is regulated under General Order No. 2006-0003-DWQ.

A flow diagram is provided in Attachment C.

B. Discharge Points and Receiving Waters

Secondary treated municipal wastewater is discharged to the Pacific Ocean through the Discharger's 8,720 foot outfall/diffuser system. The outfall terminates in the Santa Barbra Channel (34° 23' 31"N Latitude; 119° 40' 03" Longitude) in approximately 70 feet of water. The minimum initial dilution ratio of the outfall/diffuser system is 120:1 (seawater: effluent, or parts seawater to parts discharge, where no brine discharge occurs, and as low as 44:1, where brine discharges at the rate of 12.5 MGD. The hydraulic capacity of the outfall is 28 MGD. The Facility and outfall location are shown in the diagram provided in Attachment B.

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

Effluent limitations contained in the previous Order for discharges from Discharge Point No. 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are summarized below. The Discharger did not operate the desalination facility during the term of the previous Order, thus the only applicable effluent limitations used to determine compliance were based on a dilution ratio of 120:1.

Table F-2. Historic Effluent Limitations and Monitoring Data Major Constituents and Properties of Wastewater

Parameter	Units	Effluent Limitation			Monitoring Data (From October 2004 – To April 2009)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Carbonaceous Biochemical Oxygen Demand (5-day @ 20 °C) ($CBOD_5$)	mg/L	25	40	90	16.8	23.7	83
Total Suspended Solids (TSS)	mg/L	30	45	90	32.2	60.8	120
Grease and Oil	mg/L	25	40	75	5.6	14.9	14.9
Settleable Solids	mL/L	1.0	1.5	3.0	2.5	8.8	37
Turbidity	NTU	75	100	225	21.8	44.8	115
pH	pH units	Between 6.0 – 9.0[1]			All values between 6.0 – 9.0		

[1] Within limits of 6.0 to 9.0 at all times. This limit is an instantaneous limit.

Table F-3. Effluent Limitations for the Protection of Marine Aquatic Life – Minimum Initial Seawater-to-Effluent Dilution ratio of 120:1

Parameter	Unit	Effluent Limitation			Highest Daily Discharge
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]	
Arsenic, Total Recoverable	µg/L	610	3,500	9,300	11
Cadmium, Total Recoverable	µg/L	120	490	1,200	<10
Chromium VI, Total Recoverable[1]	µg/L	240	970	2,400	7.6
Copper, Total Recoverable	µg/L	120	1,200	3,400	11
Lead, Total Recoverable	µg/L	240	970	2,400	<6
Mercury, Total Recoverable	µg/L	4.8	19	48	<0.2
Nickel, Total Recoverable	µg/L	600	2,400	6,000	7.2
Selenium, Total Recoverable	µg/L	1,800	7,300	18,000	12.2
Silver, Total Recoverable	µg/L	66	320	830	22.4
Zinc, Total Recoverable	µg/L	1,500	8,700	23,00	384
Cyanide, Total Recoverable[2]	µg/L	120	480	1,200	2.5
Total Chlorine Residual[3]	µg/L	240	970	7,300	2900
Ammonia (expressed as nitrogen)	µg/L	73,000	290,000	730,000	41,800
Acute Toxicity	TUa	----	3.9	----	<0.01
Chronic Toxicity	TUc	----	121	----	17.86
Phenolic Compounds (non-chlorinated)	µg/L	3,600	14,000	36,000	<0.02
Chlorinated Phenolics	µg/L	120	480	1,200	5
Endosulfan	µg/L	1.1	2.2	3.3	<0.0094
Endrin	µg/L	0.24	0.48	0.73	<0.0047
Hexachlorocyclohexane (HCH)	µg/L	0.48	0.97	1.4	<0.0282
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.				

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

[2] If the Discharger can demonstrate to the satisfaction of the Regional Water Board 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 Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

[4] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[5] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[6] The instantaneous maximum shall apply to grab sample determinations.

Table F-4. Effluent Limitations for the Protection of Human Health -- Minimum Initial Seawater-to-Effluent Dilution Ratio of 120:1

Parameter	Unit	30-Day Average Effluent Limitation	Highest Reported Value
Noncarcinogens			
Acrolein	µg/L	2.7×10^4	<5
Antimony	µg/L	1.4×10^5	<2
Bis(2-chloroethoxy) Methane	µg/L	530	<0.47
Bis(2-chloroisopropyl) ether	µg/L	1.4×10^5	<0.47
Chlorobenzene	µg/L	6.9×10^4	<1
Chromium (III)	µg/L	2.3×10^7	NA
Di-n-butyl Phthalate	µg/L	4.2×10^5	0.23
Dichlorobenzenes[1]	µg/L	6.2×10^5	<0.94
Diethyl Phthalate	µg/L	4.0×10^6	0.56
Dimethyl Phthalate	µg/L	9.9×10^7	<0.47
4,6-dinitro-2-methylphenol	µg/L	2.7×10^4	<4.7
2,4-dinitrophenol	µg/L	480	<4.7
Ethylbenzene	µg/L	5.0×10^5	<1
Fluoranthene	µg/L	1.8×10^3	<0.47
Hexachlorocyclopentadiene	µg/L	7.0×10^3	<4.7
Nitrobenzene	µg/L	590	<0.94
Thallium	µg/L	240	<1
Toluene	µg/L	10×10^6	<1
Tributyltin (TBT)	µg/L	0.17	<0.005
1,1,1-trichloroethane	µg/L	6.5×10^7	<1
Carcinogens			
Acrylonitrile	µg/L	12	<2
Aldrin	µg/L	2.7×10^{-3}	<0.0047
Benzene	µg/L	710	<0.5
Benzidine	µg/L	8.4×10^{-3}	<0.47
Beryllium	µg/L	4.0	<0.5
Bis(2-chloroethyl) Ether	µg/L	5.4	<0.47

Parameter	Unit	30-Day Average Effluent Limitation	Highest Reported Value
Bis(2-ethlyhexyl) Phthalate	µg/L	420	3.7
Carbon Tetrachloride	µg/L	110	<0.5
Chlordane[2]	µg/L	2.8×10^{-3}	<0.094
Chlorodibromethane	µg/L	1.0×10^{3}	<1
Chloroform	µg/L	1.6×10^{4}	3.1
DDT[3]	µg/L	0.021	<0.0094
1,4-dichlorobenzene	µg/L	2.2×10^{3}	0.21
3,3'-dichlorobenzidine	µg/L	0.98	<4.7
1,2-dichloroethane	µg/L	3.4×10^{3}	<0.5
1,1-dichloroethylene	µg/L	110	<1
Dichlorobromomethane	µg/L	750	<1
Dichloromethane	µg/L	5.4×10^{4}	1.6
1,3-dichloropropene	µg/L	1.1×10^{3}	<0.5
Dieldrin	µg/L	4.8×10^{-3}	<0.0047
2,4-dinitrotoluene	µg/L	310	<0.5
1,2-diphenylhydrazine	µg/L	19	<0.94
Halomethanes[4]	µg/L	1.6×10^{4}	<1
Heptachlor	µg/L	6.0×10^{-3}	<0.0094
Heptachlor Epoxide	µg/L	2.4×10^{-3}	<0.0047
Hexachlorobenzene	µg/L	0.025	<0.94
Hexachlorobutadiene	µg/L	1.7×10^{3}	<1
Hexachloroethane	µg/L	300	<1
Isophorone	µg/L	8.8×10^{4}	<0.94
N-nitrosodimethylamine	µg/L	880	<1.9
N-nitrosodi-N-propylamine	µg/L	46	<1.9
N-nitrosodiphenylamine	µg/L	300	<0.94
Polynuclear Aromatic Hydrocarbons (PAHs)[5]	µg/L	1.1	<18.86
Polychlorinated Biphenyls (PCBs)[6]	µg/L	2.3×10^{-3}	<3.29
TCDD equivalents[7]	µg/L	4.7×10^{-7}	6.39×10^{-7}
1,1,2,2-tetrachloroethane	µg/L	280	<1
Tetrachloroethylene	µg/L	240	<1
Toxaphene	µg/L	0.025	<0.47
Trichloroethylene	µg/L	3.3×10^{3}	<1
1,1,2-trichloroethane	µg/L	1.1×10^{3}	<1
2,4,6-trichlorophenol	µg/L	35	1.5
Vinyl Chloride	µg/L	4.4×10^{3}	<0.5

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

[2] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[3] 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.

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

[5] 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(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

[6] 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.

[7] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

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

D. Compliance Summary

1. The following effluent limitation exceedances were observed in self monitoring data for the Discharger from September 2004 through December 2008:

Table F-5. Effluent Limitation Exceedances

Parameter	Time Frame	Type of Limit	Effluent Limit	Result
TCDD Equivalents	June 12,2006	30 Day Average (µg/L)	3.9×10^{-9}	6.39×10^{-7}
Total Suspended Solids	January 2, 2005 – January 8, 2005	Weekly (7-Day) Average	45	49.8
Total Suspended Solids	October 19, 2004	Daily Maximum	90	120.6
Total Suspended Solids	January 7, 2005	Daily Maximum	90	96.2
Total Suspended Solids	January 8, 2005	Daily Maximum	90	110.0
% Removal – TSS	January 2005	% Removal – Monthly	>85%	82.1%
Settleable Solids	October 17, 2004 – October 23, 2004	Weekly (7-Day) Average	1.5	1.8
Settleable Solids	October 24, 2004 – October 30, 2004	Weekly (7-Day) Average	1.5	1.7
Settleable Solids	November 7, 2004 – November 13, 2004	Weekly (7-Day) Average	1.5	1.6
Settleable Solids	January 2, 2005 – January 8, 2005	Weekly (7-Day) Average	1.5	7.4
Settleable Solids	January 9, 2005 – January 15, 2005	Weekly (7-Day) Average	1.5	2.2
Settleable Solids	January 2005	Monthly	1.0	2.5

Parameter	Time Frame	Type of Limit	Effluent Limit	Result
		Average		
Settleable Solids	May 2006	Monthly Average	1.0	1.1
Settleable Solids	October 30, 2004	Daily Maximum	3.0	3.1
Settleable Solids	November 10, 2004	Daily Maximum	3.0	3.8
Settleable Solids	January 4, 2005	Daily Maximum	3.0	4.0
Settleable Solids	January 7, 2005	Daily Maximum	3.0	37.0
Settleable Solids	January 8, 2005	Daily Maximum	3.0	7.0
Settleable Solids	January 9, 2005	Daily Maximum	3.0	10.2
Settleable Solids	March 11, 2006	Daily Maximum	3.0	3.9
Settleable Solids	August 23, 2006	Daily Maximum	3.0	3.3
Settleable Solids	August 24, 2006	Daily Maximum	3.0	4.0
Settleable Solids	April 13, 2007	Daily Maximum	3.0	3.8
Settleable Solids	June 23, 2007	Daily Maximum	3.0	5.0
Settleable Solids	March 3, 2009	Daily Maximum	3.0	5.0
Settleable Solids	April 17, 2009	Daily Maximum	3.0	7.0

E. Planned Changes – Not Applicable

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

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

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** 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, the receiving waters for discharges from the 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, are described in sections II.H and II.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 temperature objectives for coastal waters.

   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 ocean.

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

5. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal

antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality 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 provision of section 131.12 and State Water Board Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations[1] section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

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 total maximum daily loads (TMDLs) that will specify waste load allocations (WLAs) for point sources and load allocations for non-point sources. The Pacific Ocean at the Santa Barbara Channel is not a 303(d) listed water body.

E. Other Plans, Polices and Regulations

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

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants 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. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. Discharge Prohibition III.A (No discharge to the Pacific Ocean at a location other than as described by the Order). The Order authorizes a single, specific point of discharge to the Pacific Ocean; 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.

3. Discharge Prohibition III.C (No dry weather monthly average discharge greater than 11 MGD). This flow limitation reflects the design treatment capacity of the treatment facility. Such a limitation ensures that the treatment facility is operated as contemplated by its design.

4. Discharge Prohibition III.D (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.

5. Discharge Prohibition III.E (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.

6. Discharge Prohibition III.F (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.

7. Discharge Prohibition III.G (Materials and substances that are prohibited). This prohibition is based on the requirements of the Ocean Plan.

B. Technology-Based Effluent Limitations

1. Scope and Authority

a. BOD_5 and TSS. Federal Regulations, 40 CFR, Part 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD_5 and TSS. A daily maximum effluent limitation for BOD_5 and TSS is also included in the Order for the secondary treated wastewater to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. In addition, 40 CFR 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent. Effluent limitations for $CBOD_5$ may be established in lieu of the parameter BOD_5 as specified in 40 CFR section 133.102(a). Consistent with the Order No. R3-2004-0122, this Order establishes effluent limitations for $CBOD_5$ in lieu of BOD_5.

This Order contains a limitation requiring an average of 85 percent removal of $CBOD_5$ and TSS over each calendar month.

The technology-based effluent limitations established for secondary treated wastewater are applicable only to the wastewater discharged from the POTW and must be applied prior to commingling with any additional discharges, including any desalination facility brine.

b. pH. Federal Regulations, 40 CFR Part 133, also establish technology-based effluent limitations for pH for secondary treated wastewater. The secondary treatment standards require the pH of the effluent to be no lower than 6.0 and no greater than 9.0 standard units.

The technology-based effluent limitations established for secondary treated wastewater are applicable only to the wastewater discharged from the POTW and must be applied prior to commingling with any additional discharges, including any desalination facility brine.

c. Flow. The Wastewater Treatment Plant was designed to provide a secondary level of treatment for up to an average dry weather design flow of 11 mgd. Therefore, this Order contains an Average Daily Discharge Flow effluent limit of 11 mgd for the POTW.

d. Table A of the Ocean Plan establishes technology-based requirements, applicable to POTWs and industrial discharges for which Effluent Limitations Guidelines have not been established. The Table A Ocean Plan effluent limitations are summarized below:

Table F-6. Table A Effluent Limitations

Parameter	Units	Monthly Average	Weekly Average	Instantaneous Maximum
Grease and Oil	mg/L	25	40	75
Settleable Solids	ml/L	1.0	1.5	3.0

Turbidity	NTU	75	100	225

Table A of the Ocean Plan establishes effluent limitations for pH, which require pH to be within 6.0 and 9.0 pH units at all times. Further, Table A establishes a 75 percent minimum removal requirement for suspended solids, unless the effluent limitation is less than 60 mg/L.

The effluent limitations contained in Table A of the Ocean Plan are applicable to the combined discharge from the POTW and the desalination facility brine.

Because desalination brine is not treated, a 75 percent removal of suspended solids is not applicable for the combined discharge of secondary treated wastewater and desalination brine. However, as discussed above, a percent removal of 85% is required for the secondary treated wastewater from the POTW.

2. Applicable Technology-Based Effluent Limitations

Title 40 CFR 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations were calculated based upon the permitted average daily discharge flow of the POTW of 11 MGD.

Technology-based effluent limitations based on secondary treatment standards must be met prior to commingling with other wastewaters. Thus, the secondary treatment standards discussed in section IV.B.1.a through IV.B.1.c above are applied to the wastewater discharged from the POTW, prior to commingling with any brine that may be discharged from the desalination facility.

Effluent limitations established in the permit based on Table A of the Ocean Plan are not required to be applied to individual wastewaters and may be applied at end-of-pipe similar to water quality-based effluent limitations. Thus, effluent limitations based on Table A of the Ocean Plan are applicable to the total wastewater discharged (secondary treated wastewater and brine from the desalination facility).

The following tables summarize technology-based effluent limitations established by the Order.

Table F-7. Technology-Based Effluent Limitations For Secondary Treated Wastewater

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
$CBOD_5$ [1] [2]	mg/L	25	40	90
	lbs/day	2,290	3,670	8,260
TSS [1]	mg/L	30	45	90
	lbs/day	2,750	4,130	8,260
pH	pH units	6.0 – 9.0 at all times		

[1] The average monthly percent removal of BOD_5 and TSS shall not be less than 85 percent.

[2] Per 40 CFR 133.102, this Order substitutes five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) effluent limits for five-day Biochemical Oxygen Demand (BOD_5) effluent limits.

Table F-8. Technology-Based Effluent Limitations For Commingled Secondary Treated Wastewater and Desalination Brine

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTUs	75	100	225
Oil & Grease	mg/L	25	40	75
	lbs/day	2,290	3,670	8,260
pH	pH units	6.0 – 9.0 at all times		

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

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.

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.

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 sections II.H and II.I 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 the 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. Existing effluent limitations shall remain in the permit; or if the previous permit did not include limitations, the permit must include a reopener clause to allow for subsequent modification of the permit to include effluent limitations if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to excursions above Table B water quality objectives.

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 non-parametric or parametric RPA is conducted according to the following steps.

i. 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.

ii. 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, a RPA was conducted using effluent monitoring data generated in several monitoring events between 2004 and 2009 with the applicable dilution ratios (parts per seawater : effluent) of 120:1 for solely POTW effluent and 44:1 for POTW effluent and POTW commingled with desalination brine.. The RPA endpoint for each Table B pollutant is identified in the tables below. Where Endpoint 1 resulted, reasonable potential to exceed water quality objectives has been determined and effluent limitations must be established in the Order.

Where Endpoint 2 resulted, reasonable potential does not exist. Arsenic, chloroform, copper and total chlorinated phenolics resulted in Endpoint 2 at one or more of the dilution ratios, however due to the limited data for these parameters, reasonable potential that was established in R3-2004-0122 for these parameters was not removed and effluent limitations were established for these parameters.

As shown in the following table, the RPA frequently leads to Endpoint 3, which as described previously is an inconclusive result. Following a finding of Endpoint 3, existing effluent limitations are retained by the Order; or if the previous Order did not include limitations, a reopener clause must be established by the proposed Order to allow for inclusion of effluent limitations at a later time if monitoring establishes that the discharge causes, has the reasonable potential to cause or contribute to excursions above Table B water quality objectives.

Table F-9. Ocean Plan RPA Results – 44:1 Dilution Ratio

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Objectives For Protection of Marine Aquatic Life					
Arsenic	4	11	8	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 3.9525 does not exceed the Co of 8.
Cadmium	4	<1	1	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1.
Chromium	4	<5	2	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.
Copper	4	8.6	3	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 2.3446 does not exceed the Co of 3.
Lead	4	<1	2	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Mercury	4	<0.2	0.04	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.04.
Nickel	4	7.2	5	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 5.
Selenium	4	12.2	15	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 15.
Silver	4	22.4	0.7	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.7.
Zinc	4	384	20	Endpoint 1	Parametric RPA found the LogNormal UCB(.95,.95,4) of 50.7722 exceeds the Co of 20.
Cyanide	4	2.5	1	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1.
Total Chlorine Residual	366	2900	2	Endpoint 1	Several detected observations exceed the Co of 2.
Ammonia, (as N)	265	41,800	600	Endpoint 1	Several detected observations exceed the Co of 600.
Chronic Toxicity	2	17.86 (TUc)	1	Endpoint 1	Non-Parametric RPA found 2 conclusive non-exceedances of the WQO of 1.
Acute Toxicity	3	<0.01 (TUa)	0.3	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.3.
Total Non-Chlorinated Phenolics	4	<0.02	30	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 30.
Total Chlorinated Phenolics	4	5	1	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 0.1111 does not exceed the Co of 1.
Endosulfan	5	<0.0094	0.009	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.009.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Endrin	5	<0.0047	0.002	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.002.
HCH	5	<0.0282	0.004	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.004.
Objectives For Protection of Human Health - Noncarcinogens					
Acrolein	5	<5	220	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 220.
Antimony	2	<2	1,200	Endpoint 3	Non-Parametric RPA found 2 conclusive non-exceedances of the WQO of 1200.
Bis(2-Chloroethoxy)methane	5	<0.47	4.4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.4..
Bis-(2-chloroisopropyl) ether	5	<0.47	1,200	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 1200.
Chlorobenzene	5	<1	570	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 570.
Di-N-butyl phthalate	5	0.23	3,500	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 3500.
Dichlorobenzenes	5	<0.94	5,100	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 5100.
Diethyl phthalate	5	0.56	33,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 33000.
Dimethyl phthalate	5	<0.47	820,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 820000.
2-Methyl,-4,6-dinitrophenol	5	<4.7	220	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 220.
2,4-Dinitrophenol	5	<4.7	4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Ethylbenzene	5	<1	4,100	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4100.
Fluoranthene	5	<0.47	15	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 15.
Hexachlorocyclopentadiene	5	<4.7	58	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 58.
Nitrobenzene	5	<0.94	4.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.9.
Thallium	3	<1	2	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 2.
Toluene	5	<1	85,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 85000.
Tributyltin	4	<0.005	0.0014	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.0014.
1,1,1-Trichloroethane	5	<1	540,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 540000.
Objectives For Protection of Human Health - Carcinogens					
Acrylonitrile	5	<2	0.1	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.1.
Aldrin	4	<0.0047	0.000022	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000022.
Benzene	5	<0.5	5.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 5.9.
Benzidine	5	<0.47	0.000069	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000069.
Beryllium	3	<0.5	0.033	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.033.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Bis(2-chloroethyl) ether	5	<0.47	0.045	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.045.
Bis-(2-ethylhexyl) phthalate	5	3.7	3.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 3.5.
Carbon Tetrachloride	4	<0.5	0.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.9.
Chlordane	5	<0.094	0.000023	Endpoint	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000023.
Chlorodibromomethane	5	<1	8.6	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 8.6.
Chloroform	5	3.1	130	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,5) of 0.0951 does not exceed the Co of 130.
DDT	5	<0.0094	0.00017	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00017.
1,4-Dichlorobenzene	5	0.21	18	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 18.
3,3-Dichlorobenzidine	5	<4.7	0.0081	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.0081.
1,2-Dichloroethane	5	<0.5	28	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 28.
1,1-Dichloroethene	5	<1	0.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.9.
Bromodichloromethane	5	<1	6.2	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 6.2.
Methylene chloride (Methylene chloride)	0	1.6	450	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 6.2.
1,3-Dichloropropene	5	<0.5	8.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 8.9.
Dieldrin	5	<0.0047	0.00004	Endpoint	Non-Parametric RPA found 0 conclusive non-exceedances

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
					of the WQO of 0.00004.
2,4-Dinitrotoluene	5	<0.5	2.6	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.6.
1,2-Diphenylhydrazine	5	<0.94	0.16	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.16.
Halomethanes	4	<1	130	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 130.
Heptachlor	5	<0.0094	0.00005	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00005.
Heptachlor epoxide	5	<0.0047	0.00002	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00002.
Hexachlorobenzene	5	<0.94	0.00021	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Hexachlorobutadiene	5	<1	14	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 14.
Hexachloroethane	5	<1	2.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.5.
Isophorone	5	<0.94	730	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 730.
N-nitrosodimethylamine	5	<1.9	7.3	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 7.3.
N-nitrosodi-n-propylamine	5	<1.9	0.38	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.38.
N-nitrosodiphenylamine	5	<0.94	2.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.5.
PAHs	5	<18.86	0.0088	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.0088.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
PCB Sum	5	<3.29	0.000019	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000019.
TCDD Equivalents	5	6.39×10^{-7}	3.9E-09	Endpoint 1	Detected observation(s) after complete mixing of 0.142e-7, exceed the Co of 0.39e-8.
1,1,2,2-Tetrachloroethane	5	<1	2.3	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.3.
Tetrachloroethene	5	<1	2	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.
Toxaphene	5	<0.47	0.00021	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Trichloroethene	5	<1	27	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 27.
1,1,2-Trichloroethane	5	<1	9.4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 9.4.
2,4, 6-Trichlorophenol	5	1.5	0.29	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.29.
Vinyl chloride	5	<0.5	36	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 36.

[1] Number of data points available from 2004 through 2008.
[2] Maximum effluent concentration.
[3] Most stringent water quality objective.

Table F-10. Ocean Plan RPA Results – 120:1 Dilution Ratio

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Objectives For Protection of Marine Aquatic Life					
Arsenic	4	11	8	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 3.3315 does not exceed the Co of 8.
Cadmium	4	<1	1	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Chromium	4	<5	2	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.
Copper	4	8.6	3	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 2.1264 does not exceed the Co of 3.
Lead	4	<1	2	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 2.
Mercury	4	<0.2	0.04	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.04.
Nickel	4	7.2	5	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 5.
Selenium	4	12.2	15	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 15.
Silver	4	22.4	0.7	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.7.
Zinc	4	384	20	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 18.9161 does not exceed the Co of 20.
Cyanide	4	2.5	1	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 1.
Total Chlorine Residual	366	2900	2	Endpoint 1	Several detected observations exceed the Co of 2.
Ammonia (as N)	265	41,800	600	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 360.35 does not exceed the Co of 600.
Chronic Toxicity	2	17.86 (TUc)	1	Endpoint 1	Non-Parametric RPA found 2 conclusive non-exceedances of the WQO of 1.
Acute Toxicity	3	<0.01 (TUa)	0.3	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.3.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Total Non-Chlorinated Phenolics	4	<0.02	30	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 30.
Total Chlorinated Phenolics	4	5	1	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,4) of 0.0413 does not exceed the Co of 1.
Endosulfan	5	<0.0094	0.009	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.009.
Endrin	5	<0.0047	0.002	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.002.
HCH	5	<0.0282	0.004	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.004.
Objectives For Protection of Human Health - Noncarcinogens					
Acrolein	5	<5	220	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 220.
Antimony	2	<2	1,200	Endpoint 3	Non-Parametric RPA found 2 conclusive non-exceedances of the WQO of 1200.
Bis(2-Chloroethoxy)methane	5	<0.47	4.4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.4..
Bis-(2-chloroisopropyl) ether	5	<0.47	1,200	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 1200.
Chlorobenzene	5	<1	570	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 570.
Di-N-butyl phthalate	5	0.23	3,500	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 3500.
Dichlorobenzenes	5	<0.94	5,100	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 5100.
Diethyl phthalate	5	0.56	33,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 33000.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Dimethyl phthalate	5	<0.47	820,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 820000.
2-Methyl,-4,6-dinitrophenol	5	<4.7	220	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 220.
2,4-Dinitrophenol	5	<4.7	4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.
Ethylbenzene	5	<1	4,100	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4100.
Fluoranthene	5	<0.47	15	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 15.
Hexachlorocyclopentadiene	5	<4.7	58	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 58.
Nitrobenzene	5	<0.94	4.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 4.9.
Thallium	3	<1	2	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 2.
Toluene	5	<1	85,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 85000.
Tributyltin	4	<0.005	0.0014	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 0.0014.
1,1,1-Trichloroethane	5	<1	540,000	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 540000.
Objectives For Protection of Human Health - Carcinogens					
Acrylonitrile	5	<2	0.1	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.1.
Aldrin	4	<0.0047	0.000022	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000022.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Benzene	5	<0.5	5.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 5.9.
Benzidine	5	<0.47	0.000069	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000069.
Beryllium	3	<0.5	0.033	Endpoint 3	Non-Parametric RPA found 3 conclusive non-exceedances of the WQO of 0.033.
Bis(2-chloroethyl) ether	5	<0.47	0.045	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.045.
Bis-(2-ethylhexyl) phthalate	5	3.7	3.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 3.5.
Carbon Tetrachloride	4	<0.5	0.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.9.
Chlordane	5	<0.094	0.000023	Endpoint	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000023.
Chlorodibromomethane	5	<1	8.6	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 8.6.
Chloroform	5	3.1	130	Endpoint 2	Parametric RPA found the LogNormal UCB(.95,.95,5) of 0.0951 does not exceed the Co of 130.
DDT	5	<0.0094	0.00017	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00017.
1,4-Dichlorobenzene	5	0.21	18	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 18.
3,3-Dichlorobenzidine	5	<4.7	0.0081	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.0081.
1,2-Dichloroethane	5	<0.5	28	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 28.
1,1-Dichloroethene	5	<1	0.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.9.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
Bromodichloromethane	5	<1	6.2	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 6.2.
Methylene chloride (Dichloromethane)	0	1.6	450	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 6.2.
1,3-Dichloropropene	5	<0.5	8.9	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 8.9.
Dieldrin	5	<0.0047	0.00004	Endpoint	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00004.
2,4-Dinitrotoluene	5	<0.5	2.6	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.6.
1,2-Diphenylhydrazine	5	<0.94	0.16	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.16.
Halomethanes	4	<1	130	Endpoint 3	Non-Parametric RPA found 4 conclusive non-exceedances of the WQO of 130.
Heptachlor	5	<0.0094	0.00005	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00005.
Heptachlor epoxide	5	<0.0047	0.00002	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00002.
Hexachlorobenzene	5	<0.94	0.00021	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Hexachlorobutadiene	5	<1	14	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 14.
Hexachloroethane	5	<1	2.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.5.
Isophorone	5	<0.94	730	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 730.
N-nitrosodimethylamine	5	<1.9	7.3	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 7.3.
N-nitrosodi-n-propylamine	5	<1.9	0.38	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.38.

Parameter	n[1]	MEC (µg/L)[2]	WQO (µg/L)[3]	RP end point	Rationale[4]
N-nitrosodiphenylamine	5	<0.94	2.5	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.5.
PAHs	5	<18.86	0.0088	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.0088.
PCB Sum	5	<3.29	0.000019	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.000019.
TCDD Equivalents	5	6.39×10^{-7}	3.9E-09	Endpoint 1	Detected observation(s) after complete mixing of 0.52e-8, exceed the Co of 0.39e-8.
1,1,2,2-tetrachloroethane	5	<1	2.3	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.3.
Tetrachloroethene	5	<1	2	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 2.
Toxaphene	5	<0.47	0.00021	Endpoint 3	Non-Parametric RPA found 0 conclusive non-exceedances of the WQO of 0.00021.
Trichloroethene	5	<1	27	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 27.
1,1,2-Trichloroethane	5	<1	9.4	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 9.4.
2,4, 6-Trichlorophenol	5	1.5	0.29	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 0.29.
Vinyl chloride	5	<0.5	36	Endpoint 3	Non-Parametric RPA found 5 conclusive non-exceedances of the WQO of 36.

[1] Number of data points available from 2004 through 2008.
[2] Maximum effluent concentration.
[3] Most stringent water quality objective.

4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Regional Water Board is establishing WQBELs for all Table B pollutants.

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

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

Where …

Ce = the effluent limitation (µg/L)

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

Cs = background seawater concentration (µg/L)

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 120 - no desalination brine discharge; 44 – with desalination brine discharge)

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-11. Background Concentrations—Ocean Plan

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

Effluent limitations for the Table B pollutants are presented in section IV.A.1.c of this Order.

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.

Based on the RPA, Regional Water Board staff have determined that treated wastewater from the Wastewater Treatment Plant has a reasonable potential to

cause or contribute to acute and chronic toxicity. Acute and chronic toxicity effluent limitations have been established in the Order.

The Discharger must also maintain a Toxicity Reduction Evaluation (TRE) Workplan, as described in section VI.C.2.a of the Order, which describes the 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 TRE 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

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

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order and are consistent with State and federal anti-backsliding requirements.

2. Satisfaction of Antidegradation Policy

The provisions of this Order are consistent with the previous Order and are consistent with applicable antidegradation policy expressed by NPDES regulations at 40 CFR 131.12 and by State Water Board Resolution No. 68-16. No changes due to the issuing of this permit are expected to result in decreased water quality in the receiving water.

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 $CBOD_5$, 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.

4. Summary of Final Effluent Limitations -- Discharge Point No. 001

a. The following technology-based effluent limitations are applicable to the discharge of secondary treated wastewater from the POTW, prior to commingling with the desalination brine discharge.

Table F-12. Summary of Final Effluent Limitations Major Constituents and Properties of Wastewater from the POTW

Parameter	Units	Effluent Limitation		
		Average Monthly	Average Weekly	Maximum Daily
$CBOD_5$	mg/L	25	40	90
Total Suspended Solids (TSS)	mg/L	30	45	90
pH	pH units	Between 6.0 – 9.0[1]		

[1] Within limits of 6.0 to 9.0 at all times. This limit is an instantaneous limit.

b. The following technology-based effluent limitations are applicable to the final effluent discharged from the Facility, including secondary treated effluent from the POTW and the desalination brine discharge.

Table F-13. Summary of Final Effluent Limitations Major Constituents and Properties of Final Effluent (POTW effluent and desalination brine)

Parameter	Units	Effluent Limitation		
		Average Monthly	Average Weekly	Maximum Daily
Grease and Oil	mg/L	25	40	75
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	pH units	Between 6.0 – 9.0[1]		

[1] Within limits of 6.0 to 9.0 at all times. This limit is an instantaneous limit.

c. The following water quality-based effluent limitations are applicable to the final effluent discharged from the Facility including periods when desalination brine is being discharged commingled with secondary treated wastewater effluent.

Table F-14a. Summary of Final Effluent Limitations for the Protection of Marine Aquatic Life – Minimum Initial Seawater-to-Effluent Dilution Ratio of 120:1

Parameter	Units	Effluent Limitations		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Arsenic, Total Recoverable	µg/L	608	3,512	9,320
Cadmium, Total Recoverable	µg/L	121	484	1,210
Chromium VI, Total	µg/L	242	968	2,420

Parameter	Units	Effluent Limitations		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Recoverable[1]				
Copper, Total Recoverable	µg/L	123	1,212	3,390
Lead, Total Recoverable	µg/L	242	968	2,420
Mercury, Total Recoverable	µg/L	4.78	19.3	48.34
Nickel, Total Recoverable	µg/L	605	2,420	6,050
Selenium, Total Recoverable	µg/L	1,815	7,260	18,150
Silver, Total Recoverable	µg/L	66.5	319.6	827.8
Zinc, Total Recoverable	µg/L	1,460	8,720	23,240
Cyanide, Total Recoverable[2]	µg/L	121	484	1,210
Total Chlorine Residual[3]	µg/L	242	968	7,260
Ammonia (expressed as nitrogen)	mg/l	72.6	290.4	726
Acute Toxicity	TUa	---	3.9	---
Chronic Toxicity	TUc	---	121	---
Phenolic Compounds (non-chlorinated)	µg/L	3,630	14,520	36,300
Chlorinated Phenolics	µg/L	121	484	1,210
Endosulfan	µg/L	1.09	2.18	3.27
Endrin	µg/L	0.24	0.48	0.73
HCH	µg/L	0.48	0.97	1.45
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

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

[2] If the Discharger can demonstrate to the satisfaction of the Regional Water Board 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 Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

[4] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[5] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[6] The instantaneous maximum shall apply to grab sample determinations.

Table F-14b. Effluent Limitations for the Protection of Human Health -- Minimum Initial Seawater-to-Effluent Dilution Ratio of 120:1

Parameter	Unit	30-Day Average
Noncarcinogens		
Acrolein	mg/l	26.6
Antimony	mg/l	145.2
Bis(2-chloroethoxy) Methane	µg/L	532.4
Bis(2-chloroisopropyl) ether	mg/l	145.2
Chlorobenzene	mg/l	68.97
Chromium (III)	mg/l	22,990
Di-n-butyl Phthalate	mg/l	423.5
Dichlorobenzenes[7]	mg/l	617.1
Diethyl Phthalate	mg/l	3,993
Dimethyl Phthalate	mg/l	99,220
4,6-Dinitro-2-methylphenol	µg/L	26,620
2,4-Dinitrophenol	µg/L	484
Ethylbenzene	mg/l	496.1
Fluoranthene	µg/L	1,815
Hexachlorocyclopentadiene	µg/L	7,018
Nitrobenzene	µg/L	592.9
Thallium	µg/L	242
Toluene	mg/l	10,285
Tributyltin	µg/L	0.17
1,1,1-trichloroethane	mg/l	65,340
Carcinogens		
Acrylonitrile	µg/L	12.1
Aldrin	µg/L	0.0027
Benzene	µg/L	713.9
Benzidine	µg/L	0.0083
Beryllium	µg/L	3.99
Bis(2-chloroethyl) Ether	µg/L	5.45
Bis(2-ethlyhexyl) Phthalate	µg/L	423.5
Carbon Tetrachloride	µg/L	108.9
Chlordane[8]	µg/L	0.0028
Chlorodibromethane	µg/L	1,040.6
Chloroform	mg/l	15.73
DDT[9]	µg/L	0.0206
1,4-Dichlorobenzene	µg/L	2,178
3,3'-Dichlorobenzidine	µg/L	0.98
1,2-Dichloroethane	µg/L	3,388
1,1Dichloroethylene	µg/L	108.9
Dichlorobromomethane	µg/L	750.2
Dichloromethane	mg/l	54.45
1,3-Dichloropropene	µg/L	1,076.9
Dieldrin	µg/L	0.0048
2,4-Dinitrotoluene	µg/L	314.6
1,2-Diphenylhydrazine	µg/L	19.36
Halomethanes[10]	mg/l	15.73

Parameter	Unit	30-Day Average
Heptachlor	µg/L	0.006
Heptachlor Epoxide	µg/L	0.0024
Hexachlorobenzene	µg/L	0.025
Hexachlorobutadiene	µg/L	1,694.6
Hexachloroethane	µg/L	302.5
Isophorone	mg/l	88.33
N-nitrosodimethylamine	µg/L	883.3
N-nitrosodi-N-propylamine	µg/L	45.98
N-nitrosodiphenylamine	µg/L	302.5
PAHs[11]	µg/L	1.06
PCBs[12]	µg/L	0.0023
TCDD equivalents[13]	µg/L	0.00000047
1,1,2,2-tetrachloroethane	µg/L	278.3
Tetrachloroethylene	µg/L	242
Toxaphene	µg/L	0.025
Trichloroethylene	µg/L	3,267
1,1,2-trichloroethane	µg/L	1,137.4
2,4,6-trichlorophenol	µg/L	35.09
Vinyl Chloride	µg/L	4,356

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

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

[9] 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.

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

[11] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

[12] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[13] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity 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

d. The following water quality-based effluent limitations are applicable to the final effluent discharged from the Facility during periods when desalination brine is not being discharged with POTW effluent (POTW effluent only).

Table F-15a. Summary of Final Effluent Limitations for the Protection of Marine Aquatic Life – Minimum Initial Seawater-to-Effluent Dilution ratio of 44:1

Parameter	Units	Effluent Limitation		
		6-Month Median[4]	Daily Maximum[5]	Instantaneous Maximum[6]
Arsenic, Total Recoverable	µg/L	228	1,308	3,468
Cadmium, Total Recoverable	µg/L	45	180	450
Chromium VI, Total Recoverable[1]	µg/L	90	360	900
Copper, Total Recoverable	µg/L	47	452	1,262
Lead, Total Recoverable	µg/L	90	360	900
Mercury, Total Recoverable	µg/L	1.78	7.18	17.98
Nickel, Total Recoverable	µg/L	225	900	2,250
Selenium, Total Recoverable	µg/L	675	2,700	6,750
Silver, Total Recoverable	µg/L	24.46	118.96	307.96
Zinc, Total Recoverable	µg/L	548	3,248	8,648
Cyanide, Total Recoverable[2]	µg/L	45	180	450
Total Chlorine Residual[3]	µg/L	90	360	2,700
Ammonia (expressed as nitrogen)	mg/l	27	108	270
Acute Toxicity	TUa	---	1.62	---
Chronic Toxicity	TUc	---	45	---
Phenolic Compounds (non-chlorinated)	µg/L	1,350	5,400	13,500
Chlorinated Phenolics	µg/L	45	180	450
Endosulfan	µg/L	0.41	0.81	1.22
Endrin	µg/L	0.09	0.18	0.27
HCH	µg/L	0.18	0.36	0.54
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

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

[2] If the Discharger can demonstrate to the satisfaction of the Regional Water Board 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 Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

[4] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[5] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[6] The instantaneous maximum shall apply to grab sample determinations.

Table F-15b. Summary of Final Effluent Limitations for the Protection of Human Health Minimum initial seawater-to-effluent dilution ratio of 44:1

Parameter	Unit	30-Day Average
Noncarcinogens		
Acrolein	µg/L	9,900
Antimony	mg/l	54
Bis(2-chloroethoxy) Methane	µg/L	198
Bis(2-chloroisopropyl) ether	mg/l	54
Chlorobenzene	mg/l	25.65
Chromium (III)	mg/l	8,550
Di-n-butyl Phthalate	mg/l	157.5
Dichlorobenzenes[7]	mg/l	229.5
Diethyl Phthalate	mg/l	1,485
Dimethyl Phthalate	mg/l	36,900
4,6-dinitro-2-methylphenol	µg/L	9,900
2,4-dinitrophenol	µg/L	180
Ethylbenzene	mg/l	184.5
Fluoranthene	µg/L	675
Hexachlorocyclopentadiene	µg/L	2,610
Nitrobenzene	µg/L	220.5
Thallium	µg/L	90
Toluene	mg/l	3,825
Tributyltin	µg/L	0.06
1,1,1-trichloroethane	mg/l	24,300
Carcinogens		
Acrylonitrile	µg/L	4.5
Aldrin	µg/L	0.001
Benzene	µg/L	265
Benzidine	µg/L	0.003
Beryllium	µg/L	1.48
Bis(2-chloroethyl) Ether	µg/L	2.02
Bis(2-ethlyhexyl) Phthalate	µg/L	157.5
Carbon Tetrachloride	µg/L	40.5
Chlordane[8]	µg/L	0.001
Chlorodibromethane	µg/L	3.387
Chloroform	µg/L	5,850
DDT[9]	µg/L	0.0076

Parameter	Unit	30-Day Average
1,4-dichlorobenzene	µg/L	810
3,3'-dichlorobenzidine	µg/L	0.36
1,2-dichloroethane	µg/L	1,260
1,1-dichloroethylene	µg/L	40.5
Dichlorobromomethane	µg/L	279
Dichloromethane	mg/l	20.25
1,3-dichloropropene	µg/L	400.5
Dieldrin	µg/L	0.0018
2,4-dinitrotoluene	µg/L	117
1,2-diphenylhydrazine	µg/L	7.2
Halomethanes[10]	µg/L	5,850
Heptachlor	µg/L	0.0023
Heptachlor Epoxide	µg/L	0.0009
Hexachlorobenzene	µg/L	0.009
Hexachlorobutadiene	µg/L	630
Hexachloroethane	µg/L	112.5
Isophorone	mg/l	32.85
N-nitrosodimethylamine	µg/L	328.5
N-nitrosodi-N-propylamine	µg/L	17.1
N-nitrosodiphenylamine	µg/L	112.5
PAHs[11]	µg/L	0.396
PCBs[12]	µg/L	0.00086
TCDD equivalents[13]	µg/L	0.00000018
1,1,2,2-tetrachloroethane	µg/L	103.5
Tetrachloroethylene	µg/L	90
Toxaphene	µg/L	0.0095
Trichloroethylene	µg/L	1,215
1,1,2-trichloroethane	µg/L	423
2,4,6-trichlorophenol	µg/L	13.05
Vinyl Chloride	µg/L	1,620

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

[8] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[9] 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.

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

[11] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

[12] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[13] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

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 those requirements established by the California Department of Public Health 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 supplemented and modified to reflect all applicable, general water quality objectives of the Ocean Plan (2005). In particular, receiving water limitations for bacteria have been modified to accurately reflect the updated Ocean Plan.

B. Groundwater – Not Applicable

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

In addition to influent flow monitoring, monitoring for $CBOD_5$ and TSS is required to determine compliance with the Order's 85 percent removal requirement for those pollutants.

Influent monitoring has been carried over from the previous Monitoring and Reporting Program. Pretreatment monitoring has been moved from the influent monitoring section to section IX.B of Attachment E. Rainfall monitoring has been moved from the influent monitoring section to section IX.D of Attachment E.

B. Effluent Monitoring

Effluent monitoring requirements for Discharge Point No. 001 have been established at two locations, EFF-001A and EFF-1B. Monitoring requirements established at EFF-001A are intended to evaluate compliance with technology-based effluent limitations for the POTW effluent, which are applicable prior to commingling with any other waste streams. Monitoring for total coliform organisms, fecal coliform organisms, and ammonia have also been established at monitoring location EFF-001A based on the effluent monitoring requirements of Order No. R3-2004-0122.

Monitoring requirements established at EFF-001B are intended to evaluate compliance with water quality-based effluent limitations, which are applicable to the total final effluent discharge. Effluent monitoring locations EFF-001A and EFF-001B may be the same location in the event that additional waste streams (desalination brine) are not discharged with the POTW effluent.

Monitoring frequencies are based on the requirements of Order No. R3-2004-0122.

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 limitations and monitoring requirements for acute and chronic toxicity for Discharge Point No. 001 from the existing Order.

D. Receiving Water Monitoring

1. Surface Water

Visual observation monitoring of the receiving water has been carried over from Order No. R3-2004-0122. In addition, shoreline bacteria monitoring has been established in the event that three consecutive effluent total coliform and/or fecal coliform bacteria tests, in any combination, exceed 16,000 per 100 mL or 3,200 per 100 mL, respectively. Receiving water monitoring is necessary to evaluate compliance with water quality objectives contained in the Ocean Plan, and for the protection of human health.

E. Other Monitoring Requirements

1. Biosolids/Sludge Monitoring.

Biosolids monitoring is required in this Order. The requirements are retained from the previous Order.

2. Benthic Sediment, Biota, Monitoring and Chemical Analysis

Benthic sediment and biota monitoring, and chemical analysis monitoring requirements have been carried over from Order No. R3-2004-0122.

3. Pretreatment Monitoring.

Pretreatment monitoring requirements have been carried over from Order No. R3-2004-0122. These requirements are authorized under 40 CFR Part 403.8.

4. Outfall Inspection.

The Order retains the requirement of the previous permit to conduct annual visual inspections of the outfall and diffuser system and provide a report of this inspection to the Regional Water Board regarding the system's 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 USEPA. 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 perform a Toxicity Reduction Evaluation if the Acute or Chronic Toxicity limit is exceeded is retained from Order No. R3-2004-0122. 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.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The 2005 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 Regional Water Board will notify the Discharger in writing if such a program becomes necessary. The 2005 Ocean Plan PMP language is included to provide guidance in the event that a PMP must be developed and implemented by the Discharger.

4. Construction, Operation, and Maintenance Specifications

The Facility shall be operated as specified under Standard Provision D of Attachment D.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids Management

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

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

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

40 CFR Part 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 part 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 Part 503.

b. Pretreatment

Pretreatment requirements for POTWs are contained within 40 CFR Part 403. Per 40 CFR Part 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 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 Part 403.3.

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

6. Other Special Provisions

a. Discharges of Storm Water

Discharges of storm water from POTWs with a design capacity greater than 1.0 MGD are applicable for coverage under General State Water Board Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Dischargers of Storm Water Associated with Industrial Activities Excluding Construction Activities*.

b. Sanitary Sewer System Requirements

Section D of Order No. R3-2004-0122 established wastewater collection system requirements for the proper operation, maintenance, and monitoring of the Discharger's collection system. Since the adoption of the previous Order in October 2004, the State Water Board has adopted a State-wide general permit for the regulation of the operation, maintenance, and monitoring of collection systems. This Order requires 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. The Discharger is enrolled under the General Permit.

7. Compliance Schedules – Not Applicable

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 El Estero 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 publication in the local newspaper on _____ and posting on the Regional Water Board's website.

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 Officer 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 3, 2010.**

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 13, 2010**
Time: **8:30 am**
Location: **California Regional Water Quality Control Board**
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

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 Ryan Lodge at (805) 549-3506 or rlodge@waterboards.ca.gov.

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