

Central Coast Regional Water Quality Control Board

**ORDER NO. R3-2017-0050
NPDES NO. CA0047881**

**WASTE DISCHARGE REQUIREMENTS
FOR THE MORRO BAY AND CAYUCOS WASTEWATER TREATMENT PLANT
DISCHARGE TO THE PACIFIC OCEAN**

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

Table 1. Discharger Information

Discharger	City of Morro Bay and Cayucos Sanitary District
Name of Facility	City of Morro Bay/Cayucos Sanitary Wastewater Treatment Plant
Facility Address	160 Atascadero Road
	Morro Bay, California, 93442
	San Luis Obispo

Table 2. Discharge Location

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

Table 3. Administrative Information

This Order was adopted by the Central Coast Water Board on:	December 7, 2017
This Order shall become effective on:	March 1, 2018
This Order shall expire on:	February 28, 2023
The Discharger shall file a Report of Waste Discharge as an application for reissuance of waste discharge requirements in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	September 1, 2022
The U.S. Environmental Protection Agency (U.S. EPA) and the Central Coast Water Board have classified this discharge as follows:	Major

IT IS HEREBY ORDERED, that Order No. R3-2008-0065 is superseded upon the effective date of this Order and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and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 amended Order.

John M. Robertson

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John M. Robertson, Executive Officer

Contents

- I. Findings4
- II. Discharge Prohibitions.....4
- III. Effluent Limitations and Discharge Specifications5
 - A. Effluent Limitations – Discharge Point No. 001.....5
 - 1. Final Effluent Limitations – Discharge Point No. 0015
 - B. Land Discharge Specifications – Not Applicable..... 10
 - C. Recycling Specifications – Not Applicable..... 10
- IV. Receiving Water Limitations..... 10
 - A. Surface Water Limitation 10
 - B. Groundwater Limitations – Not Applicable..... 13
- V. Provisions..... 13
 - A. Standard Provisions..... 13
 - B. Monitoring and Reporting Program (MRP) Requirements..... 13
 - C. Special Provisions..... 13
 - 1. Reopener Provisions..... 13
 - 2. Special Studies, Technical Reports and Additional Monitoring Requirements..... 13
 - 3. Best Management Practices and Pollution Prevention 15
 - 4. Construction, Operation and Maintenance Specifications..... 18
 - 5. Special Provisions for Municipal Facilities (POTWs Only) 18
 - 6. Other Special Provisions..... 19
- VI. Compliance Determination..... 19
 - A. General..... 19
 - B. Multiple Sample Data20
 - C. Average Monthly Effluent Limitation (AMEL)20
 - D. Average Weekly Effluent Limitation (AWEL).....20
 - E. Maximum Daily Effluent Limitation (MDEL)20

Tables

- Table 1. Discharger Information 1
- Table 2. Discharge Location..... 1
- Table 3. Administrative Information..... 1
- Table 4. Effluent Limitations.....5
- Table 5. Effluent Limitations, Protection of Marine Aquatic Life.....6
- Table 6. Effluent Limitations – Protection of Human Health – Non-Carcinogens.....7
- Table 7. Effluent Limitations – Protection of Human Health – Carcinogens.....8
- Table 8. Toxicity Reduction Evaluation Schedule..... 15

Attachments

Attachment A – Definitions A-1
Attachment B – Map B-1
Attachment C – Flow Schematic..... C-1
Attachment D – Standard Provisions D-1
Attachment E – Monitoring and Reporting Program E-1
Attachment F – Fact Sheet..... F-1

I. FINDINGS

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

- A. Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.
- B. Background and Rationale for Requirements.** The Central Coast 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 the requirements in this Order, is hereby incorporated into and constitutes findings for this Order. Attachments A through E are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections III.B, III.C, and IV.B 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.
- D. Notification of Interested Parties.** The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet of this Order.
- E. Consideration of Public Comment.** The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

THEREFORE, IT IS HEREBY ORDERED, that Order No. R3-2008-0065 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 CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Coast Water Board from taking enforcement action for past violations of the previous Order. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified, the Discharger shall comply with the analogous portions of the previous Order, which shall remain in effect for all purposes during the pendency of the stay.

II. DISCHARGE PROHIBITIONS

- A.** Discharge of treated wastewater to the Pacific Ocean at a location other than 35° 23' 11" N latitude and 120° 52' 29" W longitude is prohibited.
- B.** The discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited.

- C.** The discharge of municipal or industrial waste sludge to the Pacific 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.
- D.** The overflow of bypass or wastewater from the Discharger’s collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G.a (Bypass), is prohibited.
- E.** Bypass of the treatment facility and discharge of any wastes not meeting the discharge specifications of this Order and permit are prohibited.
- F.** The discharge of materials and substances in the wastewater that results in any of the following is 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.
 - 5. Result in aesthetically undesirable discoloration of the ocean surface.
- G.** The discharge of chlorine or any other toxic substance used for disinfection and cleanup of sewage overflows to any surface water body is prohibited. This prohibition does not apply to the chlorine in the potable water used for final wash down and cleanup of overflows.

III. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001 with compliance measured at Monitoring Location EFF-001 as described in the attached MRP:

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Total Suspended Solids (TSS) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Oil and Grease	mg/L	25	40	75
	lbs/day ^[2]	430	687	1,289
Settleable Solids	ml/L	1.0	1.5	3.0
pH	standard units	6.0 – 9.0 at all times		

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Turbidity	NTU	75	100	225

^[1] The average monthly percent removal for BOD₅ and TSS shall not be less than 85 percent.

^[2] Mass based effluent limitations were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * Design flow (2.06 MGD) * conversion factor (8.34)

Table 5. Effluent Limitations, Protection of Marine Aquatic Life

Parameter	Units	Effluent Limitation		
		6-Month Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]
Arsenic, Total Recoverable	µg/L	670	3,890	10,300
	lbs/day	12	67	177
Cadmium, Total Recoverable	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Chromium (VI), Total Recoverable	µg/L	270	1,070	2,680
	lbs/day	4.64	18	46
Mercury, Total Recoverable	µg/L	5.29	21.4	53.5
	lbs/day	0.091	0.37	0.92
Nickel, Total Recoverable	µg/L	670	2,680	6,700
	lbs/day	12	46	115
Silver, Total Recoverable	µg/L	70	350	920
	lbs/day	1.2	6.01	16
Total Chlorine Residual	µg/L	268	1,072	8,040
	lbs/day	4.6	18	138
Acute Toxicity	TUa	--	4.3	--
Chronic Toxicity	TUc	--	134	--
Phenolic Compounds (non-chlorinated)	µg/L	4,020	16,100	40,200
	lbs/day	69	277	691
Phenolic Compounds (chlorinated)	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Endosulfan ^[4]	µg/L	1.21	2.41	3.62
	lbs/day	0.021	0.041	0.062
Endrin	µg/L	0.27	0.54	0.80
	lbs/day	0.0046	0.0093	0.014
HCH ^[5]	µg/L	0.54	1.07	1.61
	lbs/day	0.0093	0.018	0.028
Radioactivity		^[6]		

Parameter	Units	Effluent Limitation		
		6-Month Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]

- ^{1]} 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 equal to zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month medial effluent concentration C_e and the observed flow rate, Q , in million gallons per day (MGD).
- ^{2]} 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 C_e and the observed flow rate, Q , in MGD.
- ^{3]} The instantaneous maximum shall apply to grab sample determinations.
- ^{4]} Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
- ^{5]} HCH shall mean the sum of the alpha, beta, gamma (Lindane) and delta isomers of hexachlorocyclohexane.
- ^{6]} Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations.

Table 6. Effluent Limitations – Protection of Human Health – Non-Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrolein	µg/L	29,500
	lbs/day	507
Antimony	µg/L	160,800
	lbs/day	2,763
Bis(2-chloroethoxy) methane	µg/L	590
	lbs/day	10
Bis(2-chloroisopropyl) ether	µg/L	160,800
	lbs/day	2,763
Chlorobenzene	µg/L	76,400
	lbs/day	1,313
Chromium (III) ^[1]	µg/L	25,500,000
	lbs/day	438,100
Di-n-butyl phthalate	µg/L	469,000
	lbs/day	8,058
Dichlorobenzenes ^[2]	µg/L	683,000
	lbs/day	11,734
Diethyl phthalate	µg/L	4,420,000
	lbs/day	75,937
Dimethyl phthalate	µg/L	109,900,000
	lbs/day	1,888,126
4,6-dinitro-2-methylphenol	µg/L	29,500
	lbs/day	507
2,4-dinitrophenol	µg/L	540
	lbs/day	9.3
Ethylbenzene	µg/L	549,000
	lbs/day	9,432
Fluoranthene	µg/L	2,000

Parameter	Units	Effluent Limitation
		30-day Average
Hexachlorocyclopentadiene	lbs/day	34
	µg/L	7,800
Nitrobenzene	lbs/day	134
	µg/L	660
Thallium	lbs/day	11
	µg/L	270
Toluene	lbs/day	4.64
	µg/L	11,400,000
Tributyltin	lbs/day	195,857
	µg/L	0.188
1,1,1-trichloroethane	lbs/day	0.0032
	µg/L	72,400,000
	lbs/day	1,243,860
	µg/L	

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

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

Table 7. Effluent Limitations – Protection of Human Health – Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrylonitrile	µg/L	13.4
	lbs/day	0.23
Aldrin	µg/L	0.00295
	lbs/day	5.07 x 10 ⁻⁵
Benzene	µg/L	791
	lbs/day	14
Benzidine	µg/L	0.00925
	lbs/day	0.00016
Beryllium	µg/L	4.42
	lbs/day	0.076
Bis(2-chloroethyl) ether	µg/L	6.03
	lbs/day	0.10
Bis(2-ethylhexyl) phthalate	µg/L	469
	lbs/day	8.06
Carbon tetrachloride	µg/L	121
	lbs/day	2.08
Chlordane ^[1]	µg/L	0.00308
	lbs/day	5.3 x 10 ⁻⁵
Chlorodibromomethane	µg/L	1,152
	lbs/day	20
Chloroform	µg/L	17,400
	lbs/day	299
DDT ^[2]	µg/L	0.0228
	lbs/day	0.00039

Parameter	Units	Effluent Limitation
		30-day Average
1,4-dichlorobenzene	µg/L	2,410
	lbs/day	41
3,3-dichlorobenzidine	µg/L	1.09
	lbs/day	0.019
1,2-dichloroethane	µg/L	3,750
	lbs/day	64
1,1-dichloroethylene	µg/L	120
	lbs/day	2.06
Dichlorobromomethane	µg/L	830
	lbs/day	14
Dichloromethane	µg/L	60,300
	lbs/day	1,036
1,3-dichloropropene	µg/L	1,190
	lbs/day	20
Dieldrin	µg/L	0.00536
	lbs/day	9.21 x 10 ⁻⁵
2,4-dinitrotoluene	µg/L	348
	lbs/day	6.0
1,2-diphenylhydrazine	µg/L	21.4
	lbs/day	0.37
Halomethanes ^[3]	µg/L	17,400
	lbs/day	299
Heptachlor	µg/L	0.0067
	lbs/day	1.15 x 10 ⁻⁴
Heptachlor epoxide	µg/L	0.00268
	lbs/day	4.6 x 10 ⁻⁵
Hexachlorobenzene	µg/L	0.0281
	lbs/day	0.00048
Hexachlorobutadiene	µg/L	1,880
	lbs/day	32
Hexachloroethane	µg/L	335
	lbs/day	5.8
Isophorone	µg/L	98,000
	lbs/day	1,684
N-nitrosodimethylamine	µg/L	978
	lbs/day	17
N-nitrosodi-n-propylamine	µg/L	50.9
	lbs/day	0.87
N-nitrosodiphenylamine	µg/L	335
	lbs/day	5.8
PAHs ^[4]	µg/L	1.18
	lbs/day	0.020
PCBs ^[5]	µg/L	0.00255

Parameter	Units	Effluent Limitation
		30-day Average
	lbs/day	4.38 x 10 ⁻⁵
1,1,2,2-tetrachloroethane	µg/L	310
	lbs/day	5.3
Tetrachloroethylene	µg/L	268
	lbs/day	4.6
Toxaphene	µg/L	0.0281
	lbs/day	0.00048
Trichloroethylene	µg/L	3,620
	lbs/day	62
1,1,2-trichloroethane	µg/L	1,260
	lbs/day	22
2,4,6-trichlorophenol	µg/L	39
	lbs/day	0.67
Vinyl chloride	µg/L	4,820
	lbs/day	83

- [1] Sum of chlorodane-alpha, chlorodane-gamma, chlorodene-alpha, chlorodene-gamma, nonachlor-alpha, nonachlor gamma, and oxychlorodane.
- [2] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
- [3] Sum of bromoform, bromoethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.
- [4] Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorine, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- [5] 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.

- 2. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.
- 3. **Dry Weather Flow.** Effluent peak seasonal dry weather flow shall not exceed a monthly average of 2.36 million gallons per day.
- 4. **Bacteria**
 - a. Total Coliform
 - i. The total coliform concentrations shall not exceed a 30-day geometric mean of 23 MPN/100 mL.
 - ii. No total coliform single sample shall exceed 2,400 MPN/100 mL.

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

IV. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

Receiving water limitations are based on water quality objectives contained in the Ocean Plan and Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Pacific Ocean:

1. Bacterial Characteristics

- a. At all areas where shellfish may be harvested for human consumption, as determined by the Regional 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.
- b. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Board (i.e., waters designated REC-1), but including all kelp beds, the following bacterial 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 site:
 - (a) Total coliform density shall not exceed 1,000 per 100 ml;
 - (b) Fecal coliform density shall not exceed 200 per 100 ml; and
 - (c) Enterococcus density shall not exceed 35 per 100 ml.
 - ii. Single Sample Maximum:
 - (a) Total coliform density shall not exceed 10,000 per 100 ml;
 - (b) Fecal coliform density shall not exceed 400 per 100 ml;
 - (c) Enterococcus density shall not exceed 104 per 100 ml; and
 - (d) Total coliform density shall not exceed 1,000 per 100 ml when the fecal coliform to total coliform ratio exceeds 0.1.

2. Physical Characteristics

- a. Floating particulates and grease and oil shall not be visible on the ocean surface.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- c. Natural light shall not be significantly reduced at any point outside the zone of initial dilution as the result of the discharge of waste.
- d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

- e. Temperature of the receiving water shall not be altered to adversely affect beneficial uses, as set forth in the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California.

3. Chemical Characteristics

- a. The dissolved oxygen concentration shall not, at any time, be depressed more than 10 percent from that which occurs naturally, or fall below 5.0 mg/L, as the result of the discharge of oxygen demanding waste materials. The mean annual dissolved oxygen concentration shall not be less than 7.0 mg/L.
- b. 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 to 8.5 at all times.
- c. The dissolved sulfide concentrations of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- d. The concentrations of substances set forth in Table 1 of the Ocean Plan shall not be increased in marine sediments to that which would degrade indigenous biota.
- e. The concentration of organic materials in marine sediments shall not be increased to that which would degrade marine life.
- f. Nutrient materials shall not cause objectionable aquatic growth or degrade indigenous biota.

4. Biological Characteristics

- a. Marine communities, including vertebrate, and plant species, shall not be degraded.
- b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity

- a. Discharge of radioactive waste shall not degrade marine life.
- b. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

6. General Standards

- a. The discharge shall not cause a violation of any applicable WQO or standard for receiving waters adopted by the Central Coast Water Board or State Water Board, as required by the CWA and regulations adopted thereunder.

- b. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.
- c. Waste effluents shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

B. Groundwater Limitations – Not Applicable

V. PROVISIONS

A. Standard Provisions

- 1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
- 2. **Central Coast Water Board Standard Provisions.** The Discharger shall comply with the Central Coast Water Board 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 C.F.R. 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

C. Special Provisions

1. Reopener Provisions

- a. This Order may be reopened and modified in accordance with NPDES regulations at 40 C.F.R. 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any U.S. EPA approved, new, State WQO.
- b. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan (Ocean Plan) Table 1 water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

As indicated in section V.C of the MRP, when chronic toxicity is detected in the effluent above the applicable effluent limitations, the Discharger shall resample immediately, retest, and report the results to the Executive Officer, who will determine whether to initiate an enforcement action, require a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan, or implement other measures.

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 step 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's toxicity tests. The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow in the event that a toxicity effluent limitation established by this Order is exceeded in the discharge. The workplan shall be prepared in accordance with current technical guidance and reference material, including:

- i. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833/B-99-022).*
- ii. *Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F).*
- iii. *Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080).*
- iv. *Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081).*

At a minimum, the TRE Workplan shall include:

- i. Actions that will be taken to investigate/identify the causes/sources of toxicity,
- ii. Actions that will be evaluated to mitigate the impact of the discharge, to correct the non-compliance, and/or to prevent the recurrence of chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken), and
- iii. A schedule under which these actions will be implemented.

When monitoring measures chronic toxicity above the toxicity trigger of 134 TUc established by this Order, the Discharger shall resample immediately, and retest for chronic toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer as soon as possible following receipt of monitoring results, not to exceed 15 days from the conclusion of each test. The Executive Officer will determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. When the Executive Officer requires the Discharger to conduct a TRE, the TRE shall be conducted giving due consideration to guidance provided by the U.S. EPA's Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3 (EPA document Nos. EPA 600/R-91/003, 600/6/91/005F, and 600/R-92/080, and 600/R-92/081, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

Table 8. 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 Executive Officer.
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 Executive Officer.

b. Receiving Water Monitoring for Bacteria

If effluent limitations for total coliform bacteria are exceeded in consecutive monitoring events, the Discharger shall conduct near shore and surf zone monitoring for bacteria in accordance with section VIII.A of the Monitoring and Reporting Program. Results of the increased monitoring for bacteria shall be summarized and submitted in a report to the Executive Officer.

3. Best Management Practices and Pollution Prevention

a. Pollution Prevention Program

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

- i. Inventory all chemicals used for the operation and maintenance of the treatment plant that may enter the discharge and classify each according to its potential to cause toxicity to be present in the effluent. If toxicity data is not available for the chemicals used at the plant, and toxicity is found to be present in the effluent, the Discharger should conduct toxicity tests for the individual chemicals that potentially contribute to toxicity.
- ii. Develop and implement a public educational program targeted at residential and commercial sources of toxic pollutants emphasizing the need to properly manage and minimize the disposal (i.e., source reduction) of potentially harmful pollutants (oil, antifreeze, herbicides, paints, solvents, etc.).
- iii. Develop and implement program(s) which provide convenient means for people to properly dispose of (and/or recycle) oil, antifreeze, pesticides, herbicides, paints, solvents, and other potentially harmful chemicals.
- iv. Develop and implement waste minimization measures to reduce or eliminate incompatible pollutants discharged to the treatment plant. Waste minimization measures must address all significant controllable sources of pollutants including residential, industrial, and commercial sources.

- v. On an annual basis, to be submitted with the annual report specified in the MRP, the Discharger shall submit a status report to U.S. EPA and Central Coast Water Board detailing efforts of compliance with regard to the Pollution Prevention Program specified herein.
- vi. In order to provide adequate legal authority for the Discharger to protect its Facility and to evaluate sources of industrial discharges, the Discharger must perform the following activities:
 - (a) Develop and implement a sewer use ordinance to provide the legal authorities described in 40 C.F.R. 403.8(f)(1).
 - (b) Update annually (and summarized in the annual report) industrial waste survey as described in 40 C.F.R. 403.8(f)(2)(i)-(ii).
 - (c) Update annually (and summarized in the annual report) potential impacts of industrial discharges, identified in section V.C.3.a.ii above, upon the POTW. The report must address the need for regulation of industrial discharges to implement the objectives of the pollution prevention program.
 - (d) If, in the evaluation of section V.C.3.a.i and section V.C.3.a.ii, above, the Executive Officer determines that a formal pretreatment program is necessary to adequately meet program objectives, then the Discharger shall develop such a program in accordance with 40 C.F.R. 403.9.
 - (e) The Discharger shall comply, and ensure affected indirect Dischargers comply, with the Reporting Requirements of the Standard Provisions.

b. Pollutant Minimization Program (PMP)

i. Pollutant Minimization Program Goal

The goal of the PMP is to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the 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 completion and implementation of a PMP, required in accordance with CA Water Code section 13263.3(d) will fulfill the PMP requirements in this section.

ii. Determining the Need for a PMP

- (a) The Discharger shall develop and conduct a PMP if all of the following conditions are true:

- (1) The calculated effluent limitation is less than the reported Minimum Level (ML);

- (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.
- (b) Alternatively, the Discharger must develop and conduct a PMP if all of the following conditions are true:
- (1) The 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.

iii. Elements of a PMP

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

- (a) An annual review and semi-annual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;
- (b) Quarterly monitoring for the reportable pollutant in the influent to the wastewater treatment system;
- (c) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the calculated effluent limitation;
- (d) Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy; and,
- (e) An annual status report that shall be sent to the Executive Officer that includes:
 - (1) All PMP monitoring results for the previous year;

- (2) A list of potential sources of the reportable pollutant;
- (3) A summary of all action 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

- a. 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

- i. The handling, management, and disposal of sludge and solids derived from wastewater treatment must comply with applicable provisions of U.S. EPA regulations at 40 C.F.R. 257, 258, 501, and 503, including all monitoring, record keeping, and reporting requirements.
- ii. Sludge and wastewater solids must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 C.F.R. 258 and 503 and Title 23, Chapter 15 of the CCR. If the Discharger desires to dispose of solids and/or sludge in a different manner, a request for permit modification must be submitted to the U.S. EPA and to the Central Coast Water Board at least 180 days prior to beginning the alternative means of disposal.
- iii. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 C.F.R. Part 258 pertaining to providing information to the public. In the annual self-monitoring report, the Discharger shall include the amount of sludge placed in the landfill as well as the landfill to which is was sent.
- iv. All requirements of 40 C.F. R. Part 503 and 23 CCR Chapter 15 are enforceable whether or not the requirements of those regulations are stated in an NPDES permit or any other permit issued to the Discharger.
- v. The Discharger shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order that has a likelihood of adversely affecting human health or the environment.
- vi. 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 ground water contamination.
- vii. The solids and sludge treatment and storage site shall have adequate facilities to divert surface water runoff from adjacent areas to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection, at the minimum, from a 100-year storm and protection from the highest possible tidal stage that may occur.

- viii. The discharge of sewage sludge and solids shall not cause waste material to be in position where it is, or can be, conveyed from the treatment and storage sites and deposited in waters of the State.
- ix. The Discharger shall submit an annual report to the U.S. EPA and the Central Coast Water Board containing monitoring results and pathogen and vector attraction reduction requirements, as specified by 40 C.F.R. Part 503. The Discharger shall also report the quantity of sludge removed from the Facility and the disposal method. This self-monitoring report shall be submitted by February 19 of each year and report for the period of the previous calendar year.

6. Other Special Provisions

- a. **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 publically 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 Dischargers enrolled separately under the General WDR. The City of Morro Bay received enrollment status on January 8, 2007, and Cayucos Sanitary District received enrollment status on January 9, 2007.
- b. **Loss of Disinfection.** As soon as possible after learning of a significant loss of disinfection, the Discharger shall notify the California Department of Public Health’s Preharvest Shellfish Protection and Marine Biotoxin Monitoring Program (510-412-4638), the San Luis Obispo Public Health Services (805-781-5553), the Central Coast Water Board (805-549-3147), and any shellfish leaseholders with active shellfish growing operations in the area of the discharge, as set forth in a list to be obtained from DHS, and regularly updated. The Discharger shall determine at its discretion if a loss of disinfection has occurred, and provide notification by fax within four hours of an occurrence during weekday hours of 6:00 AM to 5:00 PM. Notification shall be given by 10:00 AM on the following business day, if a loss of disinfection has occurred, the Discharger shall also conduct monitoring for bacteria in the receiving water in accordance with section VIII.A of the MRP.

VI. COMPLIANCE DETERMINATION

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 Central Coast 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 samples 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.

C. Average Monthly Effluent Limitation (AMEL)

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

D. Average Weekly Effluent Limitation (AWEL)

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

E. Maximum Daily Effluent Limitation (MDEL)

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

ATTACHMENT A – DEFINITIONS

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)

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

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

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

Chlordane

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

Chronic Toxicity

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

a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL)

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

Daily Discharge

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

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

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

DDT

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

Degrade

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

Detected, but Not Quantified (DNQ)

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes

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

Downstream Ocean Waters

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

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

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

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

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.

Method Detection Limit (MDL)

The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B.

Minimum Level (ML)

The concentration 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 Central Coast Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Central Coast Water Board.

Not Detected (ND)

Those sample results less than the laboratory's MDL.

Ocean Waters

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)

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)

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)

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 1 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 Central Coast 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

The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Coast 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.

Shellfish

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

Significant Difference

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)

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 Nos. 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

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
	1.0
2,3,7,8-tetra CDD	
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)

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.)

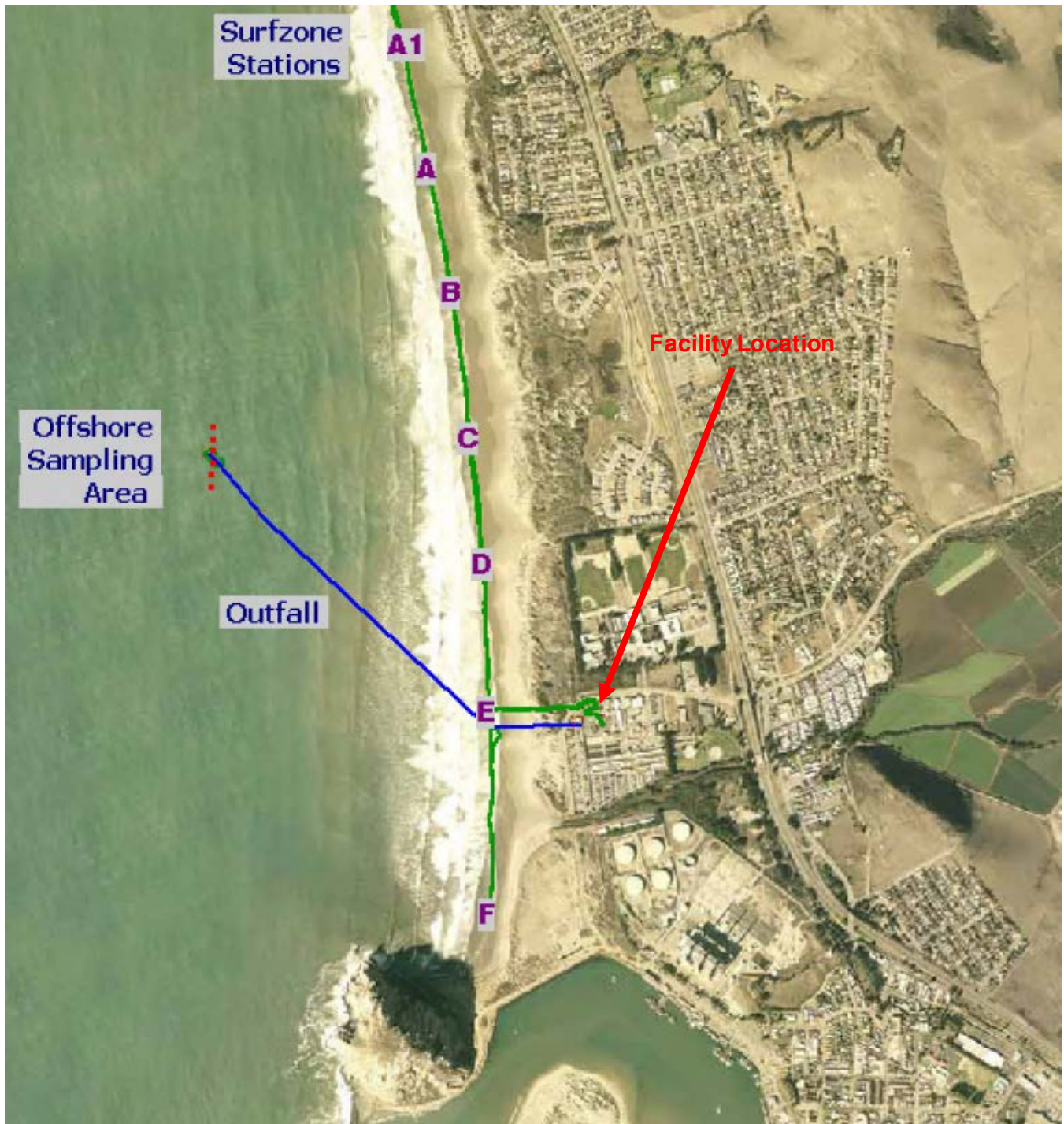
Waste

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

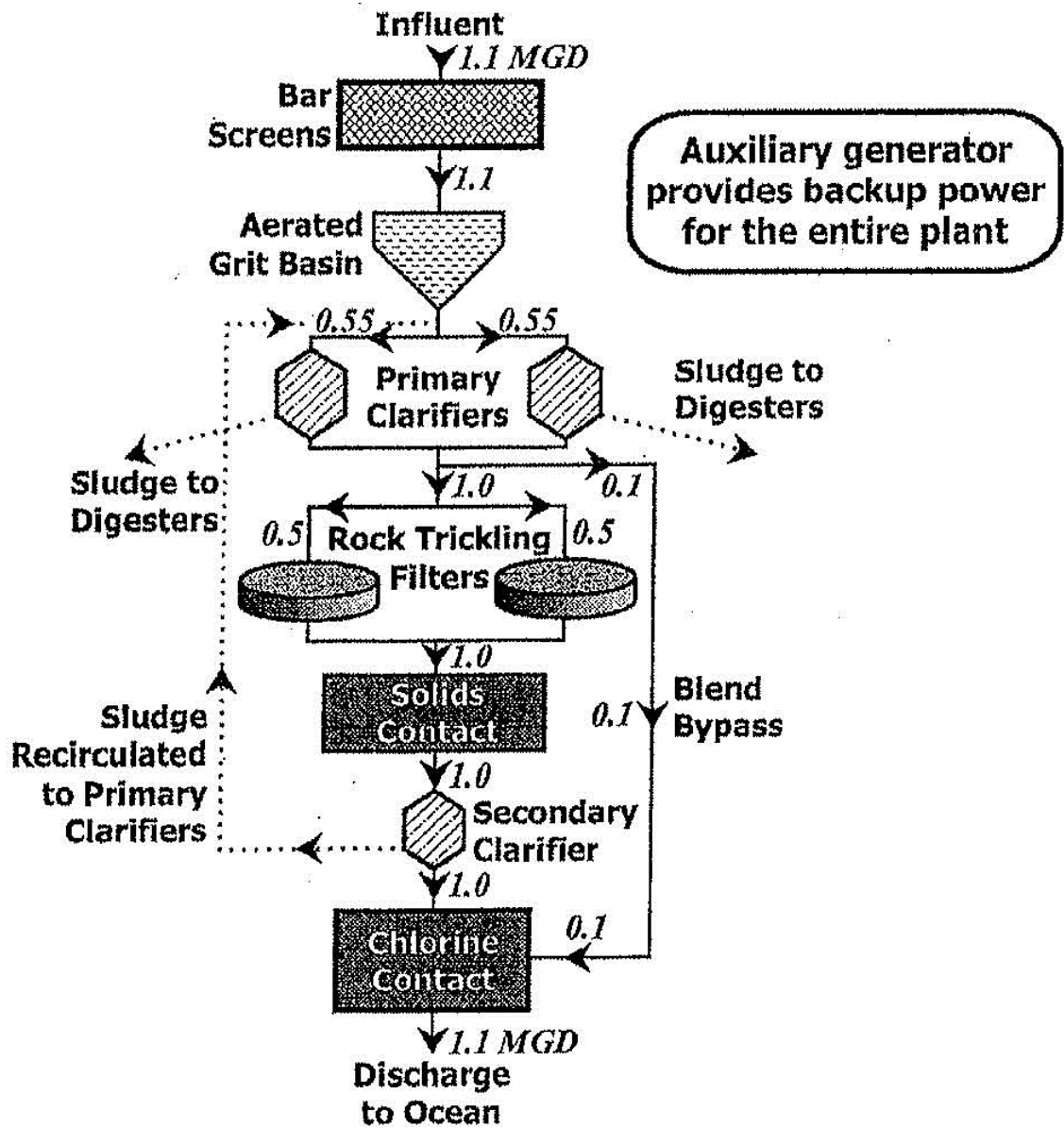
Water Recycling

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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Central Coast Water Board, State Water Board, U.S. EPA, 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 C.F.R. § 122.41(i); Wat. 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Central Coast Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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

- d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Central Coast Water Board. The Central Coast Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 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 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 or, in the case of sludge use or disposal, approved under 40 C.F.R. part 136 unless otherwise specified in 40 C.F.R. part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 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 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Central Coast Water Board State Water Board, or U.S. EPA within a reasonable time, any information which the Central Coast Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Coast Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or U.S. EPA 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 C.F.R. § 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 U.S. EPA). (40 C.F.R. § 122.22(a)(3).)
3. All reports required by this Order and other information requested by the Central Coast Water Board, State Water Board, or U.S. EPA 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 C.F.R. § 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 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Central Coast Water Board and State Water Board. (40 C.F.R. § 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 Central Coast Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Coast Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Coast Water Board. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Central Coast Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Central Coast Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 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 C.F.R. § 122.41(l)(1)(i)); or
2. 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 C.F.R. § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Central Coast Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 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 C.F.R. § 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 Central Coast Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Central Coast Water Board of the following (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.42(b)(3).)

VIII. CENTRAL COAST WATER BOARD STANDARD PROVISIONS

A. Central Coast Standard Provision – 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 (CWA) 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 and “indirect discharger” that:
 3. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,
 4. Flow through the system to the receiving water untreated; and,
 5. 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 Provision – Provisions

1. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by California Water Code (CWC) 13050.
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 plans 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,

13. Production and use of reclaimed water is subject to the approval of the Central Coast 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 CWC. 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 Central Coast 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 copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions 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 (DHS) 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 (State Water 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 DHS 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.

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,

8. A discussion of operator certification and a list of current operating personnel and their grades of certification.
9. The date of the facility's Operation and Maintenance Manual (including contingency plans as described in Provision B.9), the date the manual was last reviewed, and whether the manual is complete and valid for the current facility.
10. A discussion of the laboratories used by the discharger to monitor compliance with effluent limits and a summary of performance relative to section C, General Monitoring Requirements.
11. 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.
12. If appropriate, 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 Program."

E. Central Coast Standard Provisions – General Pretreatment Provisions

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 C.F.R. Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 C.F.R. Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:
 - a. By the date specified therein;
13. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,
14. If a new indirect discharger, upon commencement of discharge

F. Central Coast Standard Provision – 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 sewerage 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.;
5. 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,
6. the written authorization was submitted to the Central Coast Water Board.
7. 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.
8. "Hazardous substance" means any substance designated under 40 C.F.R. Part 116 pursuant to section 311 of the Clean Water Act.
9. "Incompatible wastes" are:
 - a. Wastes which create a fire or explosion hazard in the treatment works;
10. 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;
11. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;
12. 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,
13. 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.

14. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.
15. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:

$$\text{Log Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n},$$

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.

16. "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 flowrate or the average of measured daily flow rates over the period of interest.

17. 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.
18. "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.
19. "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.
20. "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.
$$\text{Average} = (X_1 + X_2 + \dots + X_n) / n$$

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.
21. "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.
22. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

23. "Pollutant-free wastewater" means inflow and infiltration, stormwaters, and cooling waters and condensates which are essentially free of pollutants.
24. "Primary Industry Category" means any industry category listed in 40 C.F.R. Part 122, Appendix A.
25. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using "Monthly averages" of pollutant concentrations (C, in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

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

26. "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.
27. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
28. 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;
15. Discharge wastewater which substantially differs in nature or constituents from its average discharge;
16. 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
17. Discharge pollutants, either alone or in conjunction with pollutants from other sources that increase the magnitude or duration of permit violations.
29. "Toxic Pollutant" means any pollutant listed as toxic under section 307 (a) (1) of the Clean Water Act or under 40 C.F.R. Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions V.E.).
30. "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 Board

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Contents

- I. General Monitoring Provisions E-2
- II. Monitoring Locations..... E-3
- III. Influent Monitoring Requirements..... E-4
- IV. Effluent Monitoring Requirements E-5
 - A. Monitoring Location EFF-001..... E-5
 - B. Mass Emission Goals..... E-8
- V. Whole Effluent Toxicity Testing Requirements..... E-10
- VI. Land Discharge Monitoring Requirements – Not Applicable..... E-14
- VII. Recycling Monitoring Requirements..... E-14
- VIII. Receiving Water Monitoring Requirements..... E-14
 - A. Surf Zone Monitoring – Monitoring Locations SRF-A1 through SRF-G, and RSW-003 and RSW-004..... E-14
 - B. Receiving Water (Ocean) Monitoring – Monitoring Locations RSW-001 through RSW-006 **Error! Bookmark not defined.**
- IX. Benthic monitoring..... E-15
 - A. Benthic Sediment Monitoring – Monitoring Locations B-002 through B-007..... E-15
 - B. Benthic Community Monitoring..... E-16
- X. Biosolids Monitoring..... E-17
- XI. Other Monitoring Requirements E-21
 - A. Ocean Outfall and Diffuser Inspection..... E-21
- XII. Reporting Requirements E-21
 - A. General Monitoring and Reporting Requirements..... E-22
 - B. Self-Monitoring Reports (SMR’s)..... E-22
 - C. Discharge Monitoring Reports (DMR’s)..... E-24
 - D. Other Reports E-25

Tables

- Table E-1. Monitoring Station Locations E-3
- Table E-2. Influent Monitoring..... E-5
- Table E-3. Effluent Monitoring..... E-5
- Table E-4. Mass Emission Goals..... E-8
- Table E-5. Approved Tests – Acute Toxicity..... **Error! Bookmark not defined.**
- Table E-6. Approved Tests – Chronic Toxicity E-11
- Table E-7. Bacteria Monitoring Schedule..... E-14
- Table E-8. Receiving Water Monitoring..... **Error! Bookmark not defined.**
- Table E-9. Benthic Sediment Monitoring..... E-15
- Table E-10. Amount of Biosolids and Frequency for Analysis..... E-17
- Table E-11. Biosolids Monitoring Requirements..... E-18
- Table E-12. Monitoring Periods and Reporting Schedule E-22

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. Laboratory Certification

Laboratories analyzing monitoring samples shall be certified by the Department of Public Health (DPH), in accordance with the provision of 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 now be changed without notification to and approval of the Central Coast Water Board.

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

1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22050. 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 C.F.R. 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 toxic pollutants specified in Table 1 of the California Ocean Plan shall be conducted in accordance with procedures described in the California Ocean Plan and restated in this MRP.
- G.** Monitoring and sampling periods are defined as follows unless otherwise specified in this MRP:
 - Daily:** Midnight through 11:59 PM, or any 24-hour period that reasonably represents a calendar day for purposes of sampling.
 - Weekly:** Sunday through Saturday (Note: For weekly monitoring and sampling periods that start in one monthly reporting period but end in the next, the Discharger may report the weekly data in the monthly monitoring report containing the last day of the weekly period.)
 - Monthly:** 1st day of calendar month through last day of calendar month.
 - Annually:** January 1st through December 31st

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
--	INF-001 (formally M-INF)	Influent wastewater prior to treatment and following all significant input of wastewater to the treatment system, and upstream of Facility return flows.
001	EFF-001 (formally M-001)	Location where representative sample of effluent, to be discharged through the ocean outfall, can be collected after treatment. Latitude: 35° 22' 47" N Longitude: 120° 51' 40" W
--	RSW-001 (formally RW-1)	Upcoast Midfield Latitude: 35° 23' 15" N Longitude: 120° 52' 30" W
--	RSW-002 (formally RW-2)	Upcoast Nearfield Latitude: 35° 23' 14" N Longitude: 120° 52' 30" W

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
--	RSW-003 (formally RW-3)	Upcoast ZID Latitude: 35° 23' 13" N Longitude: 120° 52' 30" W
--	RSW-004 (formally RW-4)	Downcoast ZID Latitude: 35° 23' 19" N Longitude: 120° 52' 30" W
--	RSW-005 (formally RW-5)	Downcoast Nearfield Latitude: 35° 23' 10" N Longitude: 120° 52' 30" W
--	RSW-006 (formally RW-6)	Downcoast Midfield Latitude: 35° 23' 9" N Longitude: 120° 52' 30" W
--	SRF-A1 (formally SZ-A1)	Upcoast Reference Latitude: 35° 23' 58" N Longitude: 120° 52' 07" W
--	SRF-A (formally SZ-A)	Upcoast Midfield Latitude: 35° 23' 45" N Longitude: 120° 52' 07" W
--	SRF-B (formally SZ-B)	Upcoast Nearfield Latitude: 35° 23' 31" N Longitude: 120° 52' 00" W
--	SRF-C (formally SZ-C)	Onshore of Diffuser Latitude: 35° 23' 15" N Longitude: 120° 51' 57" W
--	SRF-D (formally SZ-D)	Downcoast Nearfield Latitude: 35° 23' 02" N Longitude: 120° 51' 55" W
--	SRF-E (formally SZ-E)	Downcoast Midfield Latitude: 35° 22' 46" N Longitude: 120° 51' 54" W
--	SRF-F (formally SZ-F)	Downcoast Reference Latitude: 35° 22' 24" N Longitude: 120° 51' 53" W
--	SRF-G (formally SZ-G)	Morro Creek immediately before flowing to the ocean.
--	B-002	Upcoast Reference Latitude: 35° 23' 17" N Longitude: 120° 52' 30" W
--	B-003	Downcoast Nearfield Latitude: 35° 23' 14" N Longitude: 120° 52' 30" W
--	B-004	Upcoast ZID Latitude: 35° 23' 13" N Longitude: 120° 52' 30" W
--	B-005	Downcoast ZID Latitude: 35° 23' 11" N Longitude: 120° 52' 30" W
--	B-006	Downcoast Nearfield Latitude: 35° 23' 10" N Longitude: 120° 52' 30" W
--	B-007	Downcoast Reference Latitude: 35° 23' 7" N Longitude: 120° 52' 30" W

The north latitude and west longitude information in Table E-1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the Facility at INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MG	Metered	Daily
Maximum Daily Flow	MGD	Metered	Daily
Mean Daily Flow	MGD	Calculated	Monthly
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	C-24 ^[1]	Weekly
Total Suspended Solids (TSS)	mg/L	C-24 ^[1]	Weekly

Footnotes to Table E-2:

Units:

mg/L = milligrams per liter

C-24 = 24 hour composite

^[1] Composite samples may be taken by a proportional sampling devise approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.

2. Effluent flow metering shall be reported in place of influent flow metering when the flume is surcharged. Monitoring reports shall indicate the dates and times for which the influent flow meter was surcharged and effluent flow is being reported in place of influent flow.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor effluent at Monitoring Location EFF-001, as follows.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Chlorine Residual	µg/L	Grab	1/Day
Chlorine Usage	lbs/day	Recorded	1/Day
Total Coliform	MPN	Grab	5/Week ^[1]
Temperature	°C	Grab	5/Week
Turbidity	NTU	Grab	5/Week
BOD ₅	mg/L	C-24	1/Week
TSS	mg/L	C-24	1/Week
pH	standard units	Grab	1/Week
Settleable Solids	mL/L	Grab	1/Week
Oil and Grease	mg/L	Grab	1/Week
Chronic Toxicity	TUc	C-24	1/Year
Ammonia (as N)	mg/L	Grab	1/Year
Nitrate (as N)	mg/L	Grab	1/Year
Urea (as N)	mg/L	Grab	1/Year
Orthophosphate (as P)	mg/L	Grab	1/Year
Dissolved Silica (SiO ₂)	mg/L	Grab	1/Year

Parameter	Units	Sample Type	Minimum Sampling Frequency
Protection of Marine Aquatic Life			
Arsenic, Total Recoverable	µg/L	C-24	1/Year
Cadmium, Total Recoverable	µg/L	C-24	1/Year
Chromium (VI), Total Recoverable	µg/L	C-24	1/Year
Copper, Total Recoverable	µg/L	C-24	1/Year
Lead, Total Recoverable	µg/L	C-24	1/Year
Mercury, Total Recoverable	µg/L	C-24	1/Year
Nickel, Total Recoverable	µg/L	C-24	1/Year
Selenium, Total Recoverable	µg/L	C-24	1/Year
Silver, Total Recoverable	µg/L	C-24	1/Year
Zinc, Total Recoverable	µg/L	C-24	1/Year
Cyanide, Total	µg/L	C-24	1/Permit
Phenolic Compounds (non-chlorinated)	µg/L	Grab	1/Permit
Phenolic Compounds (chlorinated)	µg/L	Grab	1/Permit
Endosulfan ^[2]	µg/L	C-24	1/Permit
Endrin	µg/L	C-24	1/Permit
HCH ^[3]	µg/L	C-24	1/Permit
Radionuclide	pCi/L	C-24	1/Permit
Protection of Human Health – Noncarcinogens			
Acrolein	µg/L	C-24	1/Permit
Antimony	µg/L	C-24	1/Permit
Bis(2-chloroethoxy)methane	µg/L	C-24	1/Permit
Bis(2-chloroisopropyl)ether	µg/L	C-24	1/Permit
Chlorobenzene	µg/L	C-24	1/Permit
Chromium (III)	µg/L	C-24	1/Permit
Di-n-butyl phthalate	µg/L	C-24	1/Permit
Dichlorobenzenes ^[4]	µg/L	C-24	1/Permit
Diethyl phthalate	µg/L	C-24	1/Permit
Dimethyl phthalate	µg/L	C-24	1/Permit
4,6-dinitro-2-methylphenol	µg/L	C-24	1/Permit
2,4-dinitrophenol	µg/L	C-24	1/Permit
Ethylbenzene	µg/L	C-24	1/Permit
Fluoranthene	µg/L	C-24	1/Permit
Hexachlorocyclopentadiene	µg/L	C-24	1/Permit
Isophorone	µg/L	C-24	1/Permit
Nitrobenzene	µg/L	C-24	1/Permit
Thallium	µg/L	C-24	1/Permit
Toluene	µg/L	C-24	1/Permit
Tributyltin	µg/L	C-24	1/Permit
1,1,1-trichlorethane	µg/L	C-24	1/Permit
1,1,2-trichloroethane	µg/L	C-24	1/Permit

Parameter	Units	Sample Type	Minimum Sampling Frequency
Protection of Human Health – Carcinogens			
Acrylonitrile	µg/L	C-24	1/Permit
Aldrin	µg/L	C-24	1/Permit
Benzene	µg/L	C-24	1/Permit
Benzidine	µg/L	C-24	1/Permit
Beryllium	µg/L	C-24	1/Permit
Bis(2-chloroethyl)ether	µg/L	C-24	1/Permit
Bis(2-ethylhexyl)phthalate	µg/L	C-24	1/Permit
Carbon tetrachloride	µg/L	C-24	1/Permit
Chlordane ^[5]	µg/L	C-24	1/Permit
Chlorodibromomethane	µg/L	C-24	1/Permit
Chloroform	µg/L	C-24	1/Permit
DDT ^[6]	µg/L	C-24	1/Permit
1,4-dichlorobenzene	µg/L	C-24	1/Permit
3,3-dichlorobenzidine	µg/L	C-24	1/Permit
1,2-dichloroethane	µg/L	C-24	1/Permit
1,1-dichloroethylene	µg/L	C-24	1/Permit
Dichlorobromomethane	µg/L	C-24	1/Permit
Dichloromethane	µg/L	C-24	1/Permit
1,3-dichloropropene	µg/L	C-24	1/Permit
Dieldrin	µg/L	C-24	1/Permit
2,4-dinitrotoluene	µg/L	C-24	1/Permit
1,2-diphenylhydrazine	µg/L	C-24	1/Permit
Halomethanes ^[7]	µg/L	C-24	1/Permit
Heptachlor	µg/L	C-24	1/Permit
Heptachlor epoxide	µg/L	C-24	1/Permit
Hexachlorobenzene	µg/L	C-24	1/Permit
Hexachlorobutadiene	µg/L	C-24	1/Permit
Hexachloroethane	µg/L	C-24	1/Permit
N-nitrosodimethylamine	µg/L	C-24	1/Permit
N-nitrosodi-N-propylamine	µg/L	C-24	1/Permit
N-nitrosodiphenylamine	µg/L	C-24	1/Permit
PAHs ^[8]	µg/L	C-24	1/Permit
PCBs ^[9]	µg/L	C-24	1/Permit
TCDD Equivalents ^[10]	µg/L	C-24	1/Permit
1,1,2,2-tetrachloroethane	µg/L	C-24	1/Permit
Tetrachloroethylene	µg/L	C-24	1/Permit
Toxaphene	µg/L	C-24	1/Permit

[1] If effluent limitations are exceeded for total coliform, the Discharger shall monitor as specified in section VIII.A.1 of this MRP.

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

[3] HCH shall mean the sum of alpha, beta, gamma (Lindane) and delta isomers of hexachlorocyclohexane.

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

- [5] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
- [6] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4"DDE; 4,4"DDD; and 2,4'DDD.
- [7] Halomethanes shall mean the sum of bromoform, bromomethane and chloromethane.
- [8] PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorine, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- [9] 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.
- [10] TCDD equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

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

B. Mass Emission Goals

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

Table E-4. Mass Emission Goals

Constituent	Value	Units
<i>Protection of Marine Life</i>		
Arsenic, Total Recoverable	17	kg/yr
Cadmium, Total Recoverable	88	kg/yr
Chromium, Total Recoverable	93	kg/yr
Copper, Total Recoverable	690	kg/yr
Lead, Total Recoverable	465	kg/yr
Mercury, Total Recoverable	1.4	kg/yr
Nickel, Total Recoverable	142	kg/yr
Selenium, Total Recoverable	65	kg/yr
Silver, Total Recoverable	28	kg/yr
Zinc, Total Recoverable	244	kg/yr
Cyanide, Total	71	kg/yr
Endosulfan ^[1]	3	kg/yr
Endrin	1	kg/yr

Constituent	Value	Units
HCH ^[2]	228	kg/yr
Protection of Human Health - Noncarcinogens		
Acrolein	--	--
Antimony	285	kg/yr
Bis(2-chloroethoxy) methane	142	kg/yr
Bis(2-chloroisopropyl) ether	--	--
Chlorobenzene	--	--
Chromium III	--	--
Di-n-butyl phthalate	142	kg/yr
Dichlorobenzene ^[3]	5.7	kg/yr
1,1-dichloroethene	3	kg/yr
Diethyl phthalate	191	kg/yr
Dimethyl phthalate	142	kg/yr
1-methyl-4,6-dinitrophenol	142	kg/yr
2,4-dinitrophenol	342	kg/yr
Ethylbenzene	3	kg/yr
Fluoranthene	142	kg/yr
Hexachlorocyclopentadiene	--	--
Isophorone	142	kg/yr
Nitrobenzene	142	kg/yr
Thallium	285	kg/yr
Toluene	4	kg/yr
1,1,2,2-tetrachloroethane	3	kg/yr
1,1,1-trichloroethane	3	kg/yr
1,1,2-trichloroethane	3	kg/yr
Protection of Human Health - Carcinogens		
Acrylonitrile	--	--
Aldrin	0.01	kg/yr
Benzene	12	kg/yr
Benzidine	0.03	kg/yr
Beryllium	28	kg/yr
Bis(2-chloroethyl) ether	17	kg/yr
Bis(2-ethylhexyl) phthalate	320	kg/yr
Carbon tetrachloride	3	kg/yr
Chlordane ^[4]	8.8	kg/yr
Chloroform	5	kg/yr
DDT ^[5]	60	kg/yr
1,4-dichlorobenzene	57	kg/yr
3,3'-dichlorobenzidine	3.1	kg/yr
1,2-dichloroethane	3	kg/yr
Dichloromethane	--	--
1,3-dichloropropene	--	--
Dieldrin	0.02	kg/yr
2,4-dinitrotoluene	142	kg/yr

Constituent	Value	Units
1,2-diphenylhydrazine	60	kg/yr
Halomethanes ^[6]	25	kg/yr
Heptachlor	0.27	kg/yr
Hexachlorobenzene	0.08	kg/yr
Hexachlorobutadiene	142	kg/yr
Hexachloroethane	142	kg/yr
N-nitrosodimethylamine	342	kg/yr
N-nitrosodiphenylamine	142	kg/yr
PAHs ^[7]	3.4	kg/yr
PCBs ^[8]	7.3	g/yr
Dibenzofuran	57	kg/yr
TCDD Equivalents ^[9]	1.48	mg/yr
Tetrachloroethene	4	kg/yr
Toxaphene	0.08	kg/yr
Trichloroethene	3	kg/yr
2,4,6-trichlorophenol	114	kg/yr
Vinyl chloride	3	kg/yr

- [1] Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
- [2] HCH shall mean the sum of alpha, beta, gamma (Lindane) and delta isomers of hexachlorocyclohexane.
- [3] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.
- [4] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
- [5] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4"DDE; 4,4"DDD; and 2,4'DDD.
- [6] Halomethanes shall mean the sum of bromoform, bromomethane and chloromethane.
- [7] PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorine, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- [8] 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.
- [9] TCDD equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below :

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

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Whole Effluent Chronic Toxicity – Monitoring Location EFF-001

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-600-4-01-003; *Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Project*, SWRCB 1996, 96-1WQ; and/or *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA/600/4-87-028 or subsequent editions.

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

Chronic Toxicity (TUc) = 100/NOEL

The no observed effect level (NOEL) is the maximum tested concentration in a medium which does not cause known adverse effects upon chronic exposure in the species in question (i.e., the highest effluent concentration to which organisms are exposed in a chronic test that causes no observable adverse effects on the test organism; 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 2015 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 the State Water Board review and approval.

A minimum of three test species with approved test protocols shall be used to measure compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period of no fewer than three sampling events, 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	Effect	Tier	Reference
Giant Kelp, <i>Macrocystis pyrifera</i>	Percent germination; germ tube length	1	a, c
Red abalone, <i>Haliotis rufesens</i>	Abnormal shell development	1	a, c
Oyster, <i>Crassostrea gigast</i> ; Mussels, <i>Mytilus spp.</i>	Abnormal shell development; percent survival	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; Sand dollar, <i>Dendraster excentricus</i>	Percent normal development; percent fertilization	1	a, c
Shrimp, <i>Holmesimysis costata</i>	Percent survival; growth	1	a, c
Shrimp, <i>Mysidopsis bahia</i>	Percent survival; growth; fecundity	2	b, d
Topsmelt, <i>Atherinops affinis</i>	Larval growth rate; percent survival	1	a, c
Silversides, <i>Menidia beryllina</i>	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. Lazochak. 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. Pelier, and M.A. Heber. 1994. Short-term methods for estimating the chronic toxicity of effluents and receiving waters 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 Marin Bioassay Project. 96-1WQ.
- d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1988. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

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

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.

B. Accelerated Monitoring Requirements

1. When chronic toxicity is detected in the effluent above an effluent limitation established by this Order, and the testing meets all test acceptability criteria, the Discharger shall resample immediately and confirm the effluent toxicity. If the retest results in toxicity greater than the applicable effluent limitation, the Discharger shall initiate accelerated monitoring.
2. Accelerated monitoring frequency consists of performing six toxicity tests (one per week) in a six-week period following the first failed test result (test results exceed effluent limitation or toxicity trigger), or as otherwise instructed by the Executive Officer. Test results shall be submitted to the Central Coast Water Board within 15 days of the conclusion of each test.
3. Unless otherwise specified by the Executive Officer, if the implementation of the generic Toxicity Reduction Evaluation (TRE) work plan indicates the source of the exceedance of the toxicity trigger (for instance, a temporary plan upset), then only one additional test is necessary. If an exceedance of the toxicity effluent limitation or toxicity trigger is detected in this test, the Discharger shall continue with accelerated monitoring requirements or implement the Toxicity Identification and Toxicity Reduction Evaluations.
4. Unless otherwise specified by the Executive Officer, if none of the six accelerated tests indicates exceedances of the toxicity effluent limitation or toxicity trigger, then the Discharger may return to the normal bioassay testing frequency.

C. Conducting Toxicity Identification Evaluations (TIE) and Toxicity Reduction Evaluations (TRE)

1. A TRE shall be implemented by the Discharger as specified by the Executive Officer. A TIE may be required as part of the TRE.
2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the United States Environmental Protection Agency (U.S. EPA) which include the following:
 - a. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, (U.S. EPA, 1992a);
 - b. Methods for Aquatic Toxicity Identification Evaluations: Phase 1 Toxicity Characterization Procedures, Second Edition (U.S. EPA, 1991a);
 - c. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity (U.S. EPA, 1993a); and
 - d. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (U.S. EPA, 1993b).
3. As part of the TIE investigation, the Discharger shall be required to implement its TRE work plan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE includes the following:
 - a. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, August 1999, EPA/833B-99/002; and
 - b. *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program* dated May 27, 2001, U.S. EPA Office of Wastewater Management, Office of Regulatory Enforcement.

D. 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 toxicity discharge limitations (or value).
2. Toxicity test results shall be reported according to the appropriate guidance – *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, U.S. EPA Office of Water, PA821-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 a chronic toxicity test result which exceeds 134 TUc, the Discharger shall provide written notification to the Executive Officer of:
 - a. Findings of the TRE of 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. RECYCLING MONITORING REQUIREMENTS

If reclaimed water is used, the Discharger shall comply with applicable State and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the DGS at title 22, sections 60301 – 60357 of the CCR, Water Recycling Criteria.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Surf Zone Monitoring – Monitoring Locations SRF-A1 through SRF-G, and RSW-003 and RSW-004

1. If the total coliform limitations specified in section III.A.4 of the Order are exceeded, the Discharger shall monitor for total and fecal coliform and enterococcus bacteria in the receiving water at all surf zone monitoring locations, and at one station directly up coast (RSW-003) and one station directly down coast (RSW-004) of the point of discharge. The Discharger shall monitor these stations daily for a minimum of 7 days at indicated in Table E-7. A report summarizing the results of monitoring, and comparing the results to the Ocean Plan water quality objectives for bacteria shall be submitted to the Executive Officer with the next monitoring report to be submitted to the Central Coast Water Board.
2. In the event of a malfunction of the Discharger’s wastewater treatment facility’s disinfection process that results in a potential or actual discharge or inadequately disinfected effluent into the receiving water, the Discharger shall monitor receiving water for bacteria as indicated in Table E-7, and provide notice in accordance with requirements established by section V.C.6.b of the Order.

Table E-7. Bacteria Monitoring Schedule

Parameter	Units	Minimum Sampling Frequency
Total Coliform	MPN/100 mL	1/Day for 7 days ^{[1][2]}
Fecal Coliform	MPN/100 mL	1/Day for 7 days ^{[1][2]}
Enterococcus	MPN/100 mL	1/Day for 7 days ^{[1][2]}
Standard Observations	--	1/Day for 7 days ^{[2][3]}

- [1] For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 2 to 16,000 MPN/100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. 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 by the Central Coast Water Board (and approved by U.S. EPA) to be appropriate. Detection methods used for enterococcus shall be those presented in U.S. EPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, or an improved method determined by the Central Coast Water Board (and approved by U.S. EPA) to be appropriate.
- [2] If a single sample exceeds any of the single sample maximum receiving water limitations established in section IV.A.1.b.ii of the Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued until the sample result is less than the single sample maximum receiving water limitation or until the source of the high bacterial densities has been identified and positively determined to not be caused or contributed to be discharge of effluent by the Facility. When repeat sampling is required because of an exceedance of any one single sample maximum, values from all samples collected during that 30-day period will be used to determine compliance with the 30-day geometric mean receiving water limitations in section IV.A.1.a.i of the Order.
- [3] Standard observations shall include observation of wind direction and speed, weather (e.g., cloudy, sunny, rainy), the quantity of rainfall precipitated over the previous 7 day period, sea conditions, longshore currents (e.g., directions), 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.

IX. BENTHIC MONITORING

A. Benthic Sediment Monitoring – Monitoring Locations B-002 through B-007

Sediment monitoring shall be conducted once per permit term, in October 2018. Three grab samples shall be collected using a 0.1 m² Van Veen grab sampler at each benthic monitoring station. A composite of these three samples should be analyzed as follows:

Table E-8. Benthic Sediment Monitoring

Parameter	Units	Minimum Frequency of Sampling/Analysis
Sediment particle size	Phi size (% volume)	Once during permit term (October 2018)
Organic Matter	Volatile solids or TOC (mg/kg)	Once during permit term (October 2018)
Biochemical Oxygen Demand	mg/L	Once during permit term (October 2018)
Total Kjeldahl Nitrogen	mg/L	Once during permit term (October 2018)
Oil and Grease	mg/L	Once during permit term (October 2018)
Aluminum	µg/kg	Once during permit term (October 2018)
Iron	µg/kg	Once during permit term (October 2018)
Arsenic	µg/kg	Once during permit term (October 2018)
Cadmium	µg/kg	Once during permit term (October 2018)
Total Chromium	µg/kg	Once during permit term (October 2018)
Copper	µg/kg	Once during permit term (October 2018)
Lead	µg/kg	Once during permit term (October 2018)
Mercury	µg/kg	Once during permit term (October 2018)
Nickel	µg/kg	Once during permit term (October 2018)
Silber	µg/kg	Once during permit term (October 2018)
Zinc	µg/kg	Once during permit term (October 2018)
Nonchlorinated Phenolics	µg/kg	Once during permit term (October 2018)
Chlorinated Phenolics	µg/kg	Once during permit term (October 2018)
Aldrin	µg/kg	Once during permit term (October 2018)
Diieldrin	µg/kg	Once during permit term (October 2018)

Parameter	Units	Minimum Frequency of Sampling/Analysis
Chlordane	µg/kg	Once during permit term (October 2018)
DDT, DDE, DDD	µg/kg	Once during permit term (October 2018)
Endrin	µg/kg	Once during permit term (October 2018)
PAHs	µg/kg	Once during permit term (October 2018)
PCBs	µg/kg	Once during permit term (October 2018)
Toxaphene	µg/kg	Once during permit term (October 2018)

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

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

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

Benthic monitoring results shall be included in the report with a complete discussion of benthic sediment survey results and potential influence of the discharge on sediment conditions in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns observed for raw sediment parameters. The 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.

B. Benthic Community Monitoring

Benthic infaunal organisms shall be monitored once per permit term in October 2018 at the benthic monitoring stations described in section II, Monitoring Locations, above. Benthic infaunal monitoring shall assess the temporal and spatial status of local benthic communities in relation to the outfall. Sampling shall be conducted as follows:

1. **Collection:** Five replicate samples shall be collected at each station using a 0.1 m² Van Veen grab sampler.
2. For benthic infauna analyses, each replicate sample shall be passed through a 1 mm screen, and the organisms retained and preserved as appropriate for subsequent identification. It is recommended that sample preservation, sample processing, and data analyses be conducted according to *Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods* (EPA 430/9-86-004, 1987).
3. Benthic infauna from each replicate sample shall be counted and identified to the lowest possible taxon. For each replicate sample, number of individuals, number of species,

and number of individuals per species, and within each major taxonomic group (polychaetes, molluscs, crustaceans, echinoderms, and all other macroinvertebrates) shall be recorded.

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

X. BIOSOLIDS MONITORING

- A. The following information shall be submitted with the Annual Report required by Standard Provision C.16. Adequate detail should be included to characterize biosolids in accordance with 40 C.F.R. 503.
 1. A representative sample of residual solids (biosolids) shall be obtained from the last point in the handling process (i.e., in the drying beds just prior to removal). All constituents shall be analyzed annually for total concentrations for comparison with total threshold limit concentration (TTLC) criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the STLC limit for that substance. Twelve (12) discrete representative samples shall be collected at separate locations in the biosolids ready for disposal. These 12 samples shall be composited to form one (1) sample for constituent analysis. For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan including number and location of sampling points, and collect representative samples. The analysis shall test for the metals required in 40 C.F.R. 503.16 (for land application) or 503.26 (for surface disposal), using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA Publication SW-846, all applicable editions and updates), as required in 503.8(b)(4), at the minimum frequencies established therein, provided in the table below.

Table E-9. Amount of Biosolids and Frequency for Analysis

Amount^[1] (dry metric tons/365 day period)	Frequency^[2]
Greater than zero, but less than 290	1/Year.
Equal to or greater than 290 but less than 1,500	1/Quarter (four times per year)
Equal to or greater than 1,500 but less than 15,000	1/60 days (six times per year)
Greater than 15,000	1/Month (twelve times per year)

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

^[2] Test results shall be expressed in mg pollutants per kg biosolids on a 100% dry weight basis.

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

Table E-10. Biosolids Monitoring Requirements

Constituent	Units	Type of Sample	Sampling/Analysis Frequency
Quantity Removed	Tons or yds ³	Measured	Continual
Pathogen Density	--	--	Per 40 C.F.R. 503
Location Reuse/Disposal	General Public or Specific Site	--	--
Moisture Content	%	Grab	1/Year
pH	standard units	Grab	1/Year
Total Kjeldahl Nitrogen	mg/kg (dry) ¹	Grab	1/Year
Ammonia (N)	mg/kg	Grab	1/Year
Nitrate (N)	mg/kg	Grab	1/Year
Total Phosphorus	mg/kg	Grab	1/Year
Oil and Grease	mg/kg	Grab	1/Year
Arsenic	mg/kg	Grab	1/Year
Boron	mg/kg	Grab	1/Year
Cadmium	mg/kg	Grab	1/Year
Copper	mg/kg	Grab	1/Year
Chromium (Hexavalent)	mg/kg	Grab	1/Year
Lead	mg/kg	Grab	1/Year
Mercury	mg/kg	Grab	1/Year
Molybdenum	mg/kg	Grab	1/Year
Nickel	mg/kg	Grab	1/Year
Selenium	mg/kg	Grab	1/Year
Silver	mg/kg	Grab	1/Year
Zinc	mg/kg	Grab	1/Year
Priority Pollutants (excluding asbestos)	mg/kg	Grab	1/Year

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

2. Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 C.F.R. 503.32 (unless transferred to another preparer who demonstrates pathogen reduction).

Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.

If pathogen reduction is demonstrated using a “Process to Significantly/Further Reduce Pathogens” (PFRP), the Discharger shall maintain daily records of the operating parameters to achieve this reduction.

The following applies when biosolids from the Discharger are directly land applied as Class B, without further treatment by a second preparer. If the Discharger demonstrates pathogen reduction by direct testing for fecal coliforms and/or pathogens, samples must be drawn at the frequency in Table E-7. If the Discharger demonstrates Class B pathogen reduction by testing for fecal coliform, at least seven grab samples must be drawn and analyzed during each monitoring event, and a geometric mean calculated from these seven samples. If the Discharger demonstrates Class A pathogen reduction by testing for fecal coliform and/or salmonella, plus one of the PFRP processes or testing

for enteric viruses and helminth ova at least four samples of fecal coliform or salmonella must be drawn during each monitoring event. All four samples must meet the limits specified in 40 C.F.R. 503.32(a).

3. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 C.F.R. 503.33(b).
4. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the regional administrator) and Federal facilities with greater than five MGD influent flow shall sample biosolids for pollutants listed under section 307(a) of the CWA (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and Federal facilities greater than five MGD shall test dioxins/dibenzofurans using a detection limit of less than one pg/g at the times of their next priority pollutant scan if they have not done so within the past five years, and once per five years thereafter.
5. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness. All constituents regulated under CCR Title 22, division 5, chapter 11, article 3 shall be analyzed for comparison with Total Threshold Limit Concentration (TTCL) criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the Soluble Threshold Limit Concentration (STLC) limit for that substance.
6. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
7. Biosolids placed in a municipal landfill shall be tested by the Paint Filter Liquids Test (EPA Methods 9095) at the frequency determined by Table E-8, or more often if necessary to demonstrate that there are no free liquids.
8. The Discharger, either directly or through contractual agreements with their biosolids management contractors, shall comply with the following notification requirements:
 - a. *Notification of non-compliance.* The Discharger shall notify EPA Region 9, the Central Coast Water Board, and the Regional Board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify EPA Region 9 and the affected Regional Water Quality Boards of any non-compliance in writing within five working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify EPA Region 9 and the affected Regional Water Quality Boards of any non-compliance within the same time frames.
 - b. If biosolids are shipped to another State of Indian lands, the Discharger must send notice at least 60 days prior to the shipment to the permitting authorities in the receiving State or Indian land (the EPA Region Office for that area and the State/Indian authorities).

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

If any biosolids within a given monitoring period do not meet 40 C.F.R. 503.13 metals concentration limits, the Discharger (or its contractor) must pre-notify EPA, and determine the cumulative metals loading to that site to date, as required in 40 C.F.R. 503.12.

The Discharger shall notify the applier of all the applier's requirements under 40 C.F.R. 503, including the requirement that the applier certify that the management practices, site restrictions, and any applicable vector attraction reduction requirements have been met. The Discharger shall require the applier to certify at the end of 38 months following application of Class B biosolids that the harvesting restrictions in effect for up to 38 months have been met.

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

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

- a. Annual biosolids removed in dry tons and percent solids.
- b. If appropriate, a narrative description of biosolids dewatering and other treatment processes, including process parameters, including a schematic diagram showing biosolids handling facilities. For example, if drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.
- c. A description of disposal methods, including the following information as applicable related to the disposal methods used at the facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.
 - i. For landfill disposal include: 1) the central Coast Water Board WDR numbers that regulate the landfills used, 2) the present classifications of the landfills used, 3) the results of any groundwater monitoring, 4) certifications of management practices, and 5) the names and locations of the facilities receiving biosolids.

- ii. For land application include: 1) the location of the site(s), 2) the Central Coast Water Board's WDR numbers that regulate the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), 4) certifications of management practices and site restrictions, and 5) subsequent uses of the land.
- iii. For offsite application by a licensed hauler and composter include: 1) the name, address and U.S. EPA license number of the hauler and composter.
- d. Copies of analytical data required by other agencies (i.e., U.S. EPA or County Health Department) and licensed disposal facilities (i.e., landfill, land application, or composting facility) for the previous year.
- e. Descriptions of pathogen reduction methods and vector attraction reduction methods. Including supporting time and temperature data, and certifications, as required in 40 C.F.R. 503.17 and 503.27.
- f. Names, mailing address, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and amounts delivered to each.
- g. For all biosolids used or disposed at the Discharger's facility, the site and management practice information and certification required in 40 C.F.R. 503.17 and 503.27.
- h. For all biosolids temporarily stored, the information required in 40 C.F.R. 503.20 is required to demonstrate temporary storage.
- i. Reports shall be submitted to:

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

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

XI. OTHER MONITORING REQUIREMENTS

A. Ocean Outfall and Diffuser Inspection

The Discharger shall conduct an inspection of the outfall pipe/diffuser system annually to ensure the proper operation and structural integrity of the system. This inspection shall include general observations and photographic records of the outfall pipe/diffuser system and the surrounding ocean bottom in the vicinity of the outfall/diffuser. The inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. A report detailing inspection results shall be submitted to the Central Coast Water Board and U.S. EPA with the annual report required in Standard Provisions C.8.

XII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal. The Discharger shall use the current version of the Permittee Entry Template (PET) tool to configure data into the applicable CIWQS Data Format, and shall update that template according to this Order (e.g., add/delete parameters, revise limits, update monitoring locations, etc.). Blank versions of the latest PET tool are available at http://www.waterboards.ca.gov/water_issues/program/ciwqs/chc_npdes.shtml.
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 SMR's including the results of all required monitoring using U.S. EPA-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. Sampling and monitoring as required by this MRP shall begin on the effective date of this Order. The Discharger shall complete all required monitoring and reporting according to the following schedule unless otherwise directed by the Executive Officer:

Table E-11. Monitoring Periods and Reporting Schedule

SMR Name	Permit Section for Monitoring and Sampling Data Included in Report	SMR Submittal Frequencies	SMR Due Date
NPDES Monitoring Report	MRP sections III (Influent), IV (Effluent) V (Whole Effluent Toxicity), and	Monthly	First day of second calendar month following period of sampling
NPDES Monitoring Report	MRP section IV (Effluent)	Semiannually	March 1 st and September 1 st (following January and July sampling, respectively)
NPDES Monitoring Report	MRP section IV (Effluent)	Annual	February 1 st following calendar year of sampling
NPDES Monitoring Report	MRP section VIII (Receiving Water)	Quarterly	First day of second calendar month following period of sampling
NPDES Monitoring Report	MRP section IX (Benthic)	Once per permit	February 1, 2019

SMR Name	Permit Section for Monitoring and Sampling Data Included in Report	SMR Submittal Frequencies	SMR Due Date
Biosolids Technical Report	MRP section X (Biosolids)	Annually	February 1 st following calendar year of sampling
Ocean Outfall Inspection Technical Report	MRP section XI (Ocean Outfall and Diffuser Inspection)	Annually	February 1 st following calendar year of sampling
Summary Report	Attachment D, Standard Provision, VIII.D.8	Annually	April 1st following calendar year of sampling
Effluent Bacteria	Order section V.C.2.b Special Provisions	Quarterly	First day of second calendar month following period of sampling

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136. For each parameter identified in Table 1 of the Ocean Plan, the Discharger shall use a ML no greater than specified in Appendix II of the Ocean Plan.

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 shorted 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 (\pm 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. **Compliance Determination.** Compliance with effluent limitations for Ocean Plan Table 1 parameters shall be determined using sample reporting protocols defined above and

Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the Ocean Plan Table 1 parameter in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

- 6. Multiple Sample Data.** When determining compliance with an average monthly effluent limitation (AMEL), average weekly effluent limitation (AWEL), or maximum daily effluent limitation, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - a.** 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.
 - b.** 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.
- 7.** The Discharger shall submit SMR’s 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 include in their CIWQS upload 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. Uploaded reports must also include laboratory data sheets for the analytical results being presented.
 - c.** An Annual Self-Monitoring Report Summary shall be due on April 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. At any time during the term of this permit, the State or Central Coast Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of DMRs. Until such notification is given specifically for the submittal of DMR's, the Discharger shall submit DMRs in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to one of the addresses listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official U.S. EPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

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

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

2. The Discharger shall report the results of any special studies, monitoring, and reporting required by Special Provisions – VI.C. (Special Studies, Technical Reports, and Additional Monitoring) of the Order. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

ATTACHMENT F – FACT SHEET

Contents

I.	Permit Information	F-3
II.	Facility Description.....	F-4
	A. Description of Wastewater and Biosolids Treatment and Controls	F-4
	B. Discharge Points and Receiving Waters	F-4
	C. Regulatory History.....	F-5
	D. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data.....	F-10
	E. Compliance Summary.....	F-13
	F. Planned Changes.....	F-14
III.	Applicable Plans, Policies, and Regulations	F-14
	A. Legal Authorities	F-14
	B. California Environmental Quality Act (CEQA).....	F-15
	C. State and Federal Laws, Regulations, Policies, and Plans.....	F-15
	D. Impaired Water Bodies on CWA 303(d) List.....	F-16
	E. Other Plans, Policies and Regulations.....	F-17
IV.	Rationale for Effluent Limitations and Discharge Specifications.....	F-17
	A. Discharge Prohibitions	F-17
	B. Technology-Based Effluent Limitations.....	F-18
	1. Scope and Authority.....	F-18
	2. Applicable Technology-Based Effluent Limitations.....	F-18
	C. Water Quality-Based Effluent Limitations.....	F-19
	1. Scope and Authority.....	F-19
	2. Applicable Beneficial Uses and Water Quality Criteria and Objectives.....	F-20
	3. Determining the Need for WQBELs.....	F-20
	4. WQBEL Calculations.....	F-25
	5. Whole Effluent Toxicity (WET).....	F-30
	D. Final Effluent Limitation Considerations	F-31
	1. Anti-Backsliding Requirements.....	F-31
	2. Antidegradation Policies.....	F-31
	3. Stringency of Requirements for Individual Pollutants.....	F-31
	4. Summary of Final Effluent Limitations – Discharge Point No. 001.....	F-31
	E. Land Discharge Specifications – Not Applicable.....	F-36
	F. Recycling Specifications – Not Applicable.....	F-36
V.	Rationale for Receiving Water Limitations	F-36
	A. Surface Water.....	F-36
	B. Groundwater – Not Applicable.....	F-37
VI.	Rationale for Provisions.....	F-37
	A. Standard Provisions.....	F-37
	B. Special Provisions.....	F-37
	1. Reopener Provisions.....	F-37
	2. Special Studies and Additional Monitoring Requirements.....	F-37
	3. Best Management Practices and Pollution Prevention	F-38
	4. Construction, Operation, and Maintenance Specifications.....	F-38
	5. Special Provisions for Municipal Facilities (POTWs Only)	F-38
	6. Other Special Provisions.....	F-38
VII.	Rationale for Monitoring and Reporting Requirements.....	F-39
	A. Influent Monitoring.....	F-39

- B. Effluent Monitoring F-39
- C. Whole Effluent Toxicity Testing Requirements F-40
- D. Receiving Water Monitoring..... F-40
 - 1. Surface Water..... F-40
 - 2. Groundwater – Not Applicable..... F-40
- E. Other Monitoring Requirements..... F-40
- VIII. Public Participation F-41
 - A. Notification of Interested Parties F-41
 - B. Written Comments F-41
 - C. Public Hearing..... F-46
 - D. Reconsideration of Waste Discharge Requirements..... F-47
 - E. Information and Copying F-47
 - F. Register of Interested Persons F-47
 - G. Additional Information..... F-47

Tables

- Table F-1. Facility Information F-3
- Table F-2. Outfall Location F-4
- Table F-3. 2008 Settlement Agreement Conversion Schedule..... F-7
- Table F-4. Historic Effluent Limitations and Monitoring Data..... F-11
- Table F-5. Historic Effluent Limitations and Monitoring Data, Protection of Marine Aquatic Life F-11
- Table F-6. Historic Effluent Limitations and Monitoring Data for Non-Carcinogens and Carcinogens..... F-12
- Table F-7. Effluent Limitations Compliance Summary F-14
- Table F-8. Basin Plan Beneficial Uses F-15
- Table F-9. Ocean Plan Beneficial Uses F-15
- Table F-10. Secondary Treatment Requirements..... F-18
- Table F-11. Technology-Based Effluent Limitations F-19
- Table F-12. RPA Results..... F-22
- Table F-13. Pollutants Having Background Concentrations..... F-26
- Table F-14a. Effluent Limitations, Protection of Marine Aquatic Life..... F-26
- Table F-14b. Effluent Limitations – Protection of Human Health – Non-Carcinogens..... F-27
- Table F-14c. Effluent Limitations – Protection of Human Health –Carcinogens..... F-28
- Table F-15. Final Effluent Limitations..... F-31
- Table F-16a. Final Effluent Limitations, Protection of Marine Aquatic Life F-32
- Table F-16b. Final Effluent Limitations – Protection of Human Health – Non-Carcinogens..... F-33
- Table F-16c. Final Effluent Limitations – Protection of Human Health – Carcinogens..... F-34

ATTACHMENT F – FACT SHEET

As described in section I, the Central Coast Water Board incorporates this Fact Sheet as findings of the Central Coast Water Board supporting the issuance 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 400103001
Discharger	City of Morro Bay/Cayucos Sanitary District
Name of Facility	The City of Morro Bay/Cayucos Sanitary District Wastewater Treatment Plant
Facility Address	160 Atascadero Road
	Morro Bay, CA 93442
	San Luis Obispo
Facility Contact, Title and Phone	Rob Livick, Public Services Director/City Engineer, (805) 772 - 6261
Authorized Person to Sign and Submit Reports	Rob Livick, Public Services Director/City Engineer, (805) 772 - 6261
Mailing Address	955 Shasta Avenue, Morro Bay, CA 93442
Billing Address	955 Shasta Avenue, Morro Bay, CA 93442
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	B
Pretreatment Program	No
Recycling Requirements	None
Facility Permitted Flow	Peak seasonal dry weather flow of 2.36 million gallons per day (MGD)
Facility Design Flow	Annual average of 2.06 MGD, peak seasonal dry weather flow of 2.36 MGD
Watershed	Estero Bay
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

- A.** The City of Morro Bay and Cayucos Sanitary District (hereinafter Discharger) are the owners and operators of the City of Morro Bay – Cayucos Sanitary District Wastewater Treatment Plant (hereinafter Facility), a publicly owned treatment works (POTW).

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. The Discharger was previously regulated by Order No. R3-2008-0065 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047881 adopted on December 4, 2008, and expired on January 6, 2014. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

- C.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on August 26, 2013.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

The Discharger owns and operates a wastewater treatment plant that provides sewerage service to the communities of the City of Morro Bay and Cayucos Sanitary District, serving approximately 12,835 people. All wastewater goes through primary treatment, including screening, grit removal, and primary sedimentation. A portion of the flow is diverted for secondary treatment process using biofilters, a solids-contact chamber, and a secondary clarifier. The secondary process also includes parallel single-stage, high-rate, trickling filters whose combined outflow goes to a solids contact channel and finally on to a secondary sedimentation tank. When flows exceed 1 MGD, secondary-treated effluent can be blended with primary treated effluent, and the blend is chlorinated and dechlorinated before discharge. This blending process will be discontinued as part of the planned new Facility, and all flows will meet at least full secondary treatment standards.

Biosolids removed by the primary clarifiers is heated in two mixed-primary digesters then transferred to a secondary digester. Stabilized sludge from the secondary digester is transferred to one of 12 sludge-drying beds. Drying times range from two to four months, and once dried, biosolids are removed from the beds and stored in a concrete containment area. Biosolids are stored in this area, usually for less than a year, until they are removed from the WWTP for composting and eventual use as a soil amendment.

B. Discharge Points and Receiving Waters

Wastewater is discharged to the Pacific Ocean through a 170-foot outfall/diffuser system. The outfall is 27 inches in diameter and is 2,900 feet from shore under approximately 50 feet of water. The diffuser was modeled to achieve a minimum initial dilution s of 133 to 1. The zone of initial dilution is approximately 103 feet wide and 240 feet long.

Table F-2. Outfall Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
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001	Municipal Wastewater	35° 23' 11"N	120° 52' 29"W	Estero Bay, Pacific Ocean
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C. Regulatory History

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

The treatment plant was upgraded from 1983 to 1985 to a peak seasonal dry weather flow of 2.36 MGD. In 1985, U.S. EPA approved a Clean Water Act section 301(h) modified NPDES permit that waived fully secondary treatment requirements for biochemical oxygen demand (5-day @ 20°C) (BOD₅) and total suspended solids (TSS). The permit required 75% removal of TSS and included a 30-day average TSS effluent limit of 70 mg/L. The permit required 30% removal of BOD₅ and included a 30-day average BOD₅ effluent limit of 120 mg/L. The permit also required an extensive monitoring program.

The permit was reissued in 1992 and the second permit reissuance process began in May 1997. Multiple discussions between the Discharger, Central Coast Water Board staff, and U.S. EPA staff resulted in several revisions to the permit and monitoring program, including a slight reduction in allowed mass-emissions of BOD₅, TSS, and oil and grease; expanded biosolids reporting; revised benthic sampling locations; and a revised receiving water sampling program. In July 1998, staff again determined that the discharge would comply with applicable state laws, including water quality standards, and would not result in requirements for additional treatment, pollution control, or other requirements on any other pollutant sources. U.S. EPA issued a tentative decision to grant another modification of secondary treatment requirements in September 1998. In December 1998 the Central Coast Water Board approved the NPDES permit, waiving secondary treatment requirements. On January 13, 1998, the California Coastal Commission determined the permit was consistent with the Coast Zone Management Act. U.S. EPA issued the permit on January 26, 1999, which became effective March 1, 1999.

The Facility is now one of only two remaining in California that operates under a 301(h) modified permit, the other being Point Loma in San Diego County. In anticipation of the 2004 permit reissuance process, Central Coast Water Board staff met with and sent a letter to the Discharger in January 2003 that requested that it consider upgrading the treatment plant to meet federal secondary treatment standards and forgo its 301(h) modified permit. In a March 20, 2003 response, City of Morro Bay Manager Robert Hendrix wrote:

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

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

The Discharger submitted an application for reissuance of its Clean Water Act section 301(h) modified NPDES permit on July 7, 2003. It also requested a determination (“401 Certification”) as to whether the discharge will comply with applicable state laws, including water quality standards, and will not result in requirements for additional treatment, pollution control, or other requirements on any other pollutant sources. In an August 26, 2003 letter, Central Coast Water Board staff declined to make such a determination, instead deferring to the Central Coast Water Board to make such a determination through approval or disapproval of the NPDES permit.

The existing permit expired on March 1, 2004, but continued in force until the effective date of reissuance, in accordance with 40 C.F.R. part 122.6.

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

In May 2005, Carollo Engineers returned and presented a 9.5-year timeline to the Discharger. The 9.5-year timeline was based on the shortest reasonable time necessary to select an engineering consultant, coordinate between the Dischargers, develop a facility plan, obtain financing and permits, and design and construct the improvements. The 9.5-year timeline required the Discharger to achieve full compliance with secondary treatment standards by June 23, 2015. The Discharger accepted the 9.5-year timeline and formally proposed it to Central Coast Water Board staff on June 15, 2005. Central Coast Water Board staff and the Discharger drafted a tentative settlement agreement that enforces the 9.5-year timeline, and provided for one more 301(h) modified permit. This 301(h) modified permit is necessary because the timeline to achieve compliance with secondary treatment standards exceeds the five-year life of an NPDES permit.

Prior to the May 11, 2006 meeting to present the modified 301(h) waiver NPDES permit, Central Coast Water Board staff and the Discharger entered into a revised settlement agreement that expedited the conversion schedule to 8.5 years. The Central Coast Water Board had questions regarding the potential effects of continued discharges from the Facility; more specifically, whether the continued Facility discharges would affect the southern sea otter and brown pelican. As a result, the Central Coast Water Board continued the hearing to allow U.S. EPA to develop an Endangered Species Act Biological Evaluation (BE) on the potential effects. Furthermore, the BE would be required to receiving concurrence of “no likely adverse effects” pursuant to section 7 of the Federal Endangered Species Act from the United States Fish and Wildlife Service (U.S. FWS).

The U.S. EPA drafted the BE on September 6, 2007, and requested concurrence of “no likely adverse effects” on the brown pelican and southern sea otter from the U.S. FWS. The BE recognizes no likely adverse effects on the southern sea otter and brown pelican provided that the Discharger implements conservation measures, which included:

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

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

The Discharger submitted to Central Coast Water Board staff drafts for the development and implementation of a nutrient monitoring program and a Cat Litter Public Outreach program consistent with the conservation measures as proposed by U.S. EPA. These conservation measures were incorporated into the NPDES permit. The May 11, 2006 settlement agreement was updated to revise the conversion schedule and make other revisions to reflect new factual information available since the May 11, 2006 hearing. The Dischargers presented the updated settlement agreement to their governing boards for approval on November 19, 2008. In December 2008, the Discharger executed a Settlement Agreement with the Central Coast Water Board to upgrade the existing Facility to eliminate the need for the 301(h) waiver modified permit. The Settlement Agreement stated that the Central Coast Water Board Executive Officer shall recommend that the Central Coast Water Board concur in the issuance of the 2008 301(h) modified permit and that the Discharger shall upgraded the Facility so that all effluent is treated to at least secondary levels.

The 2008 Settlement Agreement contains a conversion schedule outlining the upgrade process and includes milestones for achieving critical phases of the proposed upgrade project.

Table F-3. 2008 Settlement Agreement Conversion Schedule

Task	Required Date of Completion
Preliminary Activities	
Issuance of Request for Consulting Engineering Proposals for Facilities Master Plan	November 11, 2005
Award of Consulting Engineer Contracts	April 27, 2006
Facilities Planning	
Submit Final Draft Facilities Master Plan	November 30, 2007

Task	Required Date of Completion
Submit Final Facilities Master Plan	September 30, 2009
Environmental Review and Permitting	
Complete and Circulate Draft CEQA Document	February 27, 2009
Obtain Coastal Development Permit	May 31, 2011
Financing	
Complete Draft Plan for Project Design and Construction Financing	December 31, 2007
Complete Final Plan for Project Financing	June 30, 2008
Submit proof that all necessary financing has been secured, including compliance with Proposition 218	October 30, 2009
Design and Construction	
Initiate Design	September 30, 2010
Issue Notice to Proceed with Construction	March 29, 2012
Construction Progress Reports	Quarterly (with self monitoring reports)
Complete Construction and Commence Debugging and Startup	January 31, 2014
Achieve Full Compliance with Secondary Treatment	March 31, 2014

The 2008 Settlement Agreement further states that in the second permit cycle following the expiration of the 301(h) modified permit, that the Central Coast Water Board shall issue a NPDES permit that includes effluent limitations consistent with full secondary treatment requirements, or any more stringent requirements that are necessary or that the Discharger agrees to, and concurrently issue a 13385(j)(3) Order. The 13385(j)(3) Order shall include interim effluent limits for BOD₅ and suspended solids that are the same as those in the 301(h) modified permit.

The 2008 Settlement Agreement provides enforcement relief due to a “force majeure event,” defined as any event beyond the control of the Discharger, its contractors, or any entity controlled by the Discharger, including, but not limited to third-party litigation that delays the performance of any obligation under the Settlement Agreement despite the Discharger’s best efforts to fulfill the obligation. If the Executive Officer agrees that a violation of the Conversion Schedule has been caused by a force majeure event, the time for performance of an affected requirement shall be extended for a period not to exceed the actual delay in performance resulting from such circumstance.

The Discharger ultimately proposed to demolish the existing Facility and to construct a new wastewater treatment plant on the same site in the City of Morro Bay just inland of the beach. On September 20, 2010, the draft CEQA document for the project was completed and publicly noticed for comments, and on January 10, 2011, the Morro Bay City Council certified the final Environmental Impact Report and issued a Coastal Development Permit (CDP). The CDP was immediately appealed to the California Coastal Commission (CCC). On January 10, 2013, the CCC denied the CDP at a de novo hearing for construction of an upgraded wastewater treatment facility at its existing location. The denial was based on zoning inconsistency, failure to avoid coastal hazards, failure to include a sizable reclaimed water component, and the project is located within an LCP-designated sensitive view area.

On February 23, 2011, per the terms of the Settlement Agreement, the Discharger submitted a letter to the Central Coast Water Board stating that the appeal of the CDP to the CCC constituted a force majeure event under the terms of the Settlement Agreement. On March 24, 2011, the Central Coast Water Board responded that it agreed that the appeal constituted

a force majeure event, and in a letter from the same day stated, "In considering the JPA's compliance with the Compliance Schedule, the Water Board will extend the dates of the remaining Conversion Schedule for tasks contained with the Agreement paragraph B.1 for a period not to exceed the actual delay resulting from this force majeure event."

Following the January 10, 2013 CDP denial, on May 18, 2013, the City of Morro Bay issued a request for proposal for the preliminary planning consultant for a new water reclamation facility (WRF). On May 14, 2013, the City Council selected the consultant for the preliminary planning of the new WRF. A contract with the contractor was executed on June 10, 2013.

On December 10, 2013, the City of Morro Bay City Council chose three possible sites for development of the new WRF. In February 2014, the City of Morro Bay City Council established the goal of having the new WRF operational in five years.

On May 8, 2014, the consultant submitted to the City of Morro Bay a Report on Reclamation and Council Recommended WRF Sites that provided a comparative analysis of the three proposed sites. Based on the report, the City Council is expected to choose a single site to continue moving forward with a Work Plan and begin due diligence toward the eventual design and construction of the new WRF. The Discharger has made measured and deliberate progress in achieving secondary treatment consistent with the 2008 Settlement Agreement.

Since the time the Discharger originally applied for Order renewal, there have been significant changes in their planning for future treatment facilities to address the need for full secondary treatment, pursuant to the Settlement Agreement. The Discharger will be providing an updated compliance schedule as part of this planning effort, and Water Board staff anticipates preparing a time schedule order of no more than five-years duration to accompany the proposed facilities. No additional extension of schedule is available to meet these final effluent discharge limitations contained within this proposed Order.

Additionally, the Cayucos Sanitary District has moved forward with plans to design, construct, and operate its own wastewater treatment plant, separate from its existing use of the subject Facility. Water Board staff is working with Cayucos Sanitary District on those plans and expects to draft a separate NPDES and WDRs for its facility, when appropriate.

The Discharger has requested that this Order contain revised effluent limitation and monitoring requirements to reflect this changing status. CWA section 301(h) provides for a modification of secondary treatment standards for publicly owned treatment works that discharge into marine waters if the modified requirements do not interfere with the attainment or maintenance of water quality. U.S. EPA has promulgated specific regulations pertaining to CWA section 301(h) in 40 CFR, subpart G.

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

- There is an applicable water quality standard specific to the pollutant for which the modification is requested (usually BOD₅ and TSS);
- The discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;

- The applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;
- Such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- All applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- In the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;
- To the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
- There will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- The applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 304(a)(1) [of the CWA] after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged [40 CFR part 125.57].

The conditions of the 2008 Settlement Agreement prohibited the Discharger from applying to U.S. EPA for a 301(h) waiver. U.S. EPA has not granted a 301(h) waiver, and full secondary treatment requirements must be implemented within this Order.

Consistent with Part B.2.b of the 2008 Settlement Agreement, this Order contains final effluent limitations and monitoring requirements. Concurrently with the issuance of this Order, the Central Coast Water Board shall consider a 13385(j)(3) order that includes interim effluent limitations for BOD₅ and TSS that are the same as those in the previous 301(h) modified permit. The compliance dates established within the 13385(j)(3) order will consider the 2008 Settlement Agreement Conversion Schedule, the force majeure event (the 2013 CCC denial of the CDP), and a projected five-year schedule.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-4. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (From March 2009 – To Sept 2013)		
		Average Monthly	Average Weekly	Instant Max	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Instant Max Discharge
Biochemical Oxygen Demand (5-day @ 20°C) (BOD ₅)	mg/L	120	--	180	87.5	--	154
	lbs /day	2,062	--	3,092	NR	--	NR
	kg/ day	936	--	1,404	NR	--	NR
Total Suspended Solids (TSS)	mg/L	70	--	105	37	--	97
	lbs /day	1,203	--	1,804	NR	--	NR
	kg/ day	546	--	819	NR	--	NR
Settleable Solids	mL/L	1.0	1.5	3.0	0.06	0.09	0.3
Turbidity	NTU	75	100	225	41	52	78
Oil and Grease	mg/L	25	40	75	9.5	25	25
	lbs /day	430	687	1,288	NR	NR	NR
	kg/ day	195	312	585	NR	NR	NR
pH	standard units	6.0 – 9.0 at all times			7.2 – 7.9		

NR – Not Reported

Table F-5. Historic Effluent Limitations and Monitoring Data, Protection of Marine Aquatic Life

Parameter	Units	Effluent Limitation			Monitoring Data ^[1] (From July 2009 – To July 2013)		
		6-Month Median	Maximum Daily	Instant Max	Highest 6-Month Median	Highest Maximum Daily	Highest Instant Max
Arsenic	µg/L	670	3,890	10,300	J 2.0	J 2.0	J 2.0
Cadmium	µg/L	130	540	1,340	J 10	J 10	J 10
Chromium (VI)	µg/L	270	1,070	2,680	J 10	J 10	J 10
Copper	µg/L	140	1,340	3,750	22	22	22
Lead	µg/L	270	1,070	2,680	1.8	1.8	1.8
Mercury	µg/L	5.29	21.4	53.5	J 0.09	J 0.09	J 0.09
Nickel	µg/L	670	2,680	6,700	J 10	J 10	J 10
Selenium	µg/L	2,010	8,040	20,100	2.7	2.7	2.7
Silver	µg/L	70	350	920	J 4.6	J 4.6	J 4.6
Zinc	µg/L	1,620	9,660	25,700	59	59	59
Cyanide	µg/L	130	540	1,340	50	50	50
Total Chlorine Residual	mg/L	0.27	1.07	8.04	7.4	7.4	7.4
Ammonia (as N)	mg/L	80.4	322	804	42	64	64
Acute Toxicity	TUa	--	4.3	--	--	NR	--
Chronic Toxicity	TUc	--	134	--	--	31	--
Phenolic Compounds (non-chlorinated)	µg/L	4,020	16,100	40,200	3.3	3.3	3.3

Phenolic Compounds (chlorinated)	µg/L	130	540	1,340	<0.2	<0.2	<0.2
Endosulfan	µg/L	1.21	2.41	3.62	<0.0014	<0.0014	<0.0014
Endrin	µg/L	0.27	0.54	0.80	<0.0008	<0.0008	<0.0008
HCH	µg/L	0.54	1.07	1.61	<0.0009	<0.0009	<0.0009
Radioactivity	pCi/L	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations			19	19	19

NR = Not Reported

^[1] Values preceded with a "J" represent maximum effluent concentrations that were detected, but not quantifiable.

Table F-6. Historic Effluent Limitations and Monitoring Data for Non-Carcinogens and Carcinogens

Parameter	Units	Effluent Limitation	Monitoring Data ^[1]
		Average Monthly	Highest Average Monthly Discharge
Non- Carcinogens			
Acrolein	µg/L	29,500	<7.3
Antimony	µg/L	160,800	34
Bis(2-chloroethoxy) methane	µg/L	590	<0.27
Bis(2-chloroisopropyl) ether	µg/L	160,800	<0.3
Chlorobenzene	µg/L	76,400	<0.06
Chromium (III)	µg/L	25,500,000	J 2.6
Di-n-butyl phthalate	µg/L	469,000	<0.39
Dichlorobenzenes	µg/L	683,00	<0.05
Diethyl phthalate	µg/L	4,420,000	<0.33
Dimethyl phthalate	µg/L	109,900,00	<0.39
4,6-dinitro-2-methylphenol	µg/L	29,500	<0.34
2,4-dinitrophenol	µg/L	540	<0.2
Ethylbenzene	µg/L	549,000	J 0.5
Fluoranthene	µg/L	2,000	<0.2
Hexachlorocyclopentadiene	µg/L	7,800	<0.3
Nitrobenzene	µg/L	660	<0.26
Thallium	µg/L	270	<0.08
Toluene	µg/L	11,400,000	<0.5
Tributyltin	µg/L	0.188	<0.03
1,1,1-trichloroethane	µg/L	72,400,00	<0.063
Carcinogens			
Acrylonitrile	µg/L	13.4	<0.75
Aldrin	µg/L	0.00295	<0.0013
Benzene	µg/L	791	<0.061
Benzidine	µg/L	0.00925	<7.1
Beryllium	µg/L	4.42	J 1.2

Parameter	Units	Effluent Limitation	Monitoring Data ^[1] July 2009– To July 2013
		Average Monthly	Highest Average Monthly Discharge
Bis(2-chloroethyl) ether	µg/L	6.03	<0.68
Bis(2-ethylhexyl) phthalate	µg/L	469	9.2
Carbon tetrachloride	µg/L	121	<0.074
Chlordane	µg/L	0.00308	<0.38
Chlorodibromomethane	µg/L	1,152	<0.067
Chloroform	µg/L	17,400	J 0.97
DDT	µg/L	0.0228	<0.00076
1,4-dichlorobenzene	µg/L	2,410	J 0.1
3,3-dichlorobenzidine	µg/L	1.09	<8.2
1,2-dichloroethane	µg/L	3,750	<0.09
1,1-dichloroethylene	µg/L	120	<0.07
Dichlorobromomethane	µg/L	830	<0.15
Dichloromethane	µg/L	60,300	<0.28
1,3-dichloropropene	µg/L	1,190	<0.07
Dieldrin	µg/L	0.00536	<0.0012
2,4-dinitrotoluene	µg/L	348	<0.26
1,2-diphenylhydrazine	µg/L	21.4	<0.34
Halomethanes	µg/L	17,400	J 0.25
Heptachlor	µg/L	0.0067	<0.0012
Heptachlor epoxide	µg/L	0.00268	<0.00099
Hexachlorobenzene	µg/L	0.0281	<0.2
Hexachlorobutadiene	µg/L	1,880	<0.24
Hexachloroethane	µg/L	335	<0.32
Isophorone	µg/L	98,000	<0.31
N-nitrosodimethylamine	µg/L	978	<0.61
N-nitrosodi-n-propylamine	µg/L	50.9	<1.3
N-nitrosodiphenylamine	µg/L	335	<0.44
PAHs	µg/L	1.18	<0.2
PCBs	µg/L	0.00255	<0.02
TCDD equivalents	µg/L	0.00000052	<0.00000131
1,1,2,2-tetrachloroethane	µg/L	310	<0.17
Tetrachloroethylene	µg/L	268	<0.095
Toxaphene	µg/L	0.0281	<0.42
Trichloroethylene	µg/L	3,620	<0.07
1,1,2-trichloroethane	µg/L	1,260	<0.15
2,4,6-trichlorophenol	µg/L	39	<0.6
Vinyl chloride	µg/L	4,820	<0.11

^[1] Values preceded with a “J” represent maximum effluent concentrations that were detected, but not quantifiable.

E. Compliance Summary

The Discharger violated numeric effluent limitations during the term of the previous Order. Three violations were for total chlorine violations due to equipment changes/malfunctions. The fourth violation was for total suspended solids and no further incidences of violation have occurred. The following table summarizes the violations of effluent limitations based on data collected from July 2009 through August 2017.

Table F-7. Effluent Limitations Compliance Summary

Date	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
12/16/2014	Maximum Daily	Chlorine Total Residual	3.0	1.07	mg/L
04/15/2015	Maximum Daily	Chlorine Total Residual	7.2	1.07	mg/L
12/11/2015	Maximum Daily	Chlorine Total Residual	4.5	1.07	mg/L
11/04/2016	Instantaneous Maximum	Total Suspended Solids	106	105	mg/L

F. Planned Changes

The Discharger will begin construction on a new wastewater treatment plant within this permit term. However, the Discharger points out that the current wastewater treatment facility will need to remain in service and continue operations and that significant improvement is required to maintain compliance. The Discharger has thus adopted a Major Repair and Maintenance Plan (MMRP) schedule to ensure compliance is maintained. The draft MMRP schedule provided in the Discharger’s Report of Waste Discharge provided projected maintenance and improvement projects from fiscal year 2013 through 2018. The adopted budgets contain maintenance and improvement projects including the installation of new influent screens at the headworks, replacement of chains and flights in the chlorine contact tank, cleaning and repairs to a digester, pump and valve rebuild and replacement project, and the rehabilitation of the chlorine building. These projects have been partially completed, or are scheduled to be completed.

Since the time the Discharger originally applied for Order renewal, there have been significant changes in their planning for future treatment facilities to address the need for full secondary treatment, pursuant to the Settlement Agreement. The Discharger will be providing an updated compliance schedule as part of this planning effort, and Water Board staff anticipates preparing a time schedule order of no more than five-years duration to accompany the proposed facilities. No additional extension of schedule is available to meet these final effluent discharge limitations contained within this proposed Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing

regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. Water Quality Control Plan. The Regional Water Quality Control Board (Central Coast Water Board) adopted the *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan), the most recent version released in June 2011, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean and other receiving waters addressed through the plan. Requirements in this Order implement the Basin Plan.

Beneficial uses applicable to the Pacific Ocean are as follows:

Table F-8. Basin Plan Beneficial Uses

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

2. 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, 2005, 2009, and 2012. The State Water Board adopted the latest amendment on October 16, 2012, and it became effective on August 19, 2013. 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 F-9. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	Industrial water supply (IND) Water Contact and non-contact recreation, including aesthetic enjoyment (REC-1 and REC-2) Navigation (NAV) Commercial and sport fishing (COMM)

		Mariculture (MARI) Preservation and enhancement of designated Areas of Special Biological Significance (ASBS) Rare and endangered species (RARE) Marine habitat (MAR) Fish migration (MIGR) Fish spawning and shellfish harvesting (SPWN)
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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.

3. **Antidegradation Policy.** Federal regulation 40 C.F.R. 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 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16.
4. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict 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.
5. **Endangered Species Act Requirements.** 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, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 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, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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 Central Coast Water Board must develop and implement Total Maximum Daily Loads (TMDLs) that will specify Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for non-point sources.

The U.S. EPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. The 2010 303(d) list does not identify the coast of the Pacific Ocean at Estero Bay in the vicinity of the point of discharge as being impaired.

E. Other Plans, Polices and Regulations

1. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ).** The 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 covered under the General Permit and must comply with its requirements.

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: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A.** (Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited). This prohibition is similar to the previous Order and is based on 40 C.F.R. 122.21(a), duty to apply, and CWC section 13260, which requires filing a ROWD before discharges can occur.
2. **Discharge Prohibition III.B.** (Discharges of radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited). This prohibition is based on the 2015 Ocean Plan Discharge Prohibition I.1.a.
3. **Discharge Prohibition III.C.** (The discharge of municipal or industrial waste sludge to the Pacific Ocean is prohibited). This prohibition is retained from the current permit and is based on the 2015 Ocean Plan Discharge Prohibition I.3.
4. **Discharge Prohibition III.D, III.E** (The overflow or bypass of wastewater from the Discharger’s collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G (Bypass), is prohibited.) The discharge of untreated or partially treated wastewater from the Discharger’s collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 C.F.R. 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. Discharge Prohibitions III.E is retained from the current permit.
5. **Discharge Prohibition III.F.** (Materials and substances that are prohibited). This prohibition is based on requirements of the Ocean Plan.

- 6. **Discharge Prohibition III.G.** (Discharge of chlorine or toxic substances used for disinfection prohibited). This prohibition is retained from the current Order.

B. Technology-Based Effluent Limitations

1. Scope and Authority

CWA section 301(b) requires U.S. EPA to develop secondary treatment standards for publicly-owned treatment works at a level of effluent quality attainably through applying secondary or equivalent treatment. U.S. EPA promulgated such technology-based effluent guidelines at 40 C.F.R. 133. These secondary treatment regulations include the following minimum requirements.

Table F-10. Secondary Treatment Requirements

Parameter	Units	30-Day Average	7-Day Average
BOD ^[1]	mg/L	30	45
TSS ^[1]	mg/L	30	45
pH	standard units	6.0 – 9.0	

^[1] The 30-day average percent removal for BOD₅ and TSS shall not be less than 85 percent.

In addition to the secondary treatment standards established in 40 C.F.R. 133, the State Water Board, in Table 2 of the Ocean Plan, has supplemented these technology-based requirements with additional requirements for conventional pollutants (settleable matter, oil and grease), which are applicable to the Facility. The Ocean Plan requirements are discussed in section IV.B.2 of this Fact Sheet.

2. Applicable Technology-Based Effluent Limitations

Title 40 C.F.R. 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 C.F.R. 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 C.F.R. 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 waters.

- a. **BOD₅ and TSS.** Federal Regulations, 40 C.F.R. 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD and TSS. Effluent limitations for BOD₅ and TSS have thus been established in this Order based on these standards.

Additionally, 40 C.F.R. 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. This Order includes a limitation requiring an average of 85 percent removal of BOD and TSS over each calendar month.

- b. **pH.** Federal Regulations, 40 C.F.R. 133, establishes technology-based effluent limitations for pH. 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. This pH range is also consistent with the Ocean Plan Table 2 effluent limitations.

- c. **Settleable Solids.** The Ocean Plan Table 2 establishes the minimum weekly, monthly, and maximum average of effluent quality attainable by secondary treatment for settleable solids. Effluent limitations for settleable solids have been established in this Order based on these requirements.
- d. **Oil and Grease.** The Ocean Plan Table 2 establishes the minimum weekly, monthly, and maximum average of effluent quality attainable by secondary treatment for oil and grease. Effluent limitations for oil and grease have been established in this Order based on these requirements.
- e. **Turbidity.** The Ocean Plan Table 2 establishes the minimum weekly, monthly, and maximum average of effluent quality attainable by secondary treatment for turbidity. Effluent limitations for turbidity have been established in this Order based on these requirements.

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

Table F-11. Technology-Based Effluent Limitations

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Total Suspended Solids (TSS) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Oil and Grease	mg/L	25	40	75
	lbs/day ^[2]	430	687	1,289
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	6.0 – 9.0 ^[3]		

^[1] The 30-day average percent removal for BOD and TSS shall not be less than 85 percent.

^[2] Mass-based effluent limitations were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * Design flow (2.06 MGD) * conversion factor (8.34)

^[3] Applied as an instantaneous minimum and maximum.

C. Water Quality-Based Effluent Limitations

1. Scope and Authority

CWA section 301(b) and 40 C.F.R. 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) of 40 C.F.R. requires 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) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in 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 in section III.C of this Fact Sheet.

Water quality criteria applicable to ocean waters of the Region are established by the Ocean Plan, which includes WQOs for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The WQOs from the Ocean Plan are incorporated as receiving water limitations in this Order. In addition, Table 1 of the Ocean Plan contains numeric WQOs for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 C.F.R. 122.44(d)(1), and in accordance with procedures established by the Ocean Plan (2015), the central Coast Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for Table 1 toxic pollutants.

3. Determining the Need for WQBELs

Procedures for performing an RPA for ocean dischargers are described in section III.C and Appendix VI of the Ocean Plan. The procedure is a statistical method that projects an effluent data set while taking into account the averaging period of WQOs, 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 1 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 Central Coast 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, is required. An existing effluent limitation for the pollutant shall remain in the permit, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to an excursion above a Table 1 water quality objective.

The State Water Board has developed a reasonable potential calculator, which is available at:

http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc22_setup.zip

The calculator (RPcalc 2.2) was used in the development of this Order and considers several pathways in the determination of reasonable potential.

a. First Path

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

c. Third Path

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

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

e. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable WQO, 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 WQO. 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.

In this case, a RPA was conducted using effluent monitoring data from January 2009 to July 2013. The implementation provisions for Table 1 in section III.C of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates shall be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Order No. 2008-0065 determined the minimum initial dilution factor (Dm) for the discharge to be 133 to 1 (seawater to effluent). This Dm of 133:1 will be retained from the current Order and applied to the WQBELs established herein. If the actual dilution ratio is found to be different, then the ratio will be recalculated and this Order may be reopened when and as appropriate.

A summary of the RPA results is provided below.

Table F-12. RPA Results

Parameter	Units	N ^[1]	MEC ^{[2],[3]}	Most Stringent Criteria	Background	RPA Endpoint ^[4]
Arsenic, Total Recoverable	µg/L	9	J 2	8 ^[5]	3 ^[6]	3
Cadmium, Total Recoverable	µg/L	9	J 10	1 ^[5]	0	3
Chromium (VI), Total Recoverable	µg/L	9	J 10	2 ^[5]	0	3
Copper, Total Recoverable	µg/L	9	22	3 ^[5]	2 ^[6]	2
Lead, Total Recoverable	µg/L	9	1.8	2 ^[5]	0	2
Mercury, Total Recoverable	µg/L	9	0.016	0.04 ^[5]	0.0005 ^[6]	3
Nickel, Total Recoverable	µg/L	9	J 10	5 ^[5]	0	3
Selenium, Total Recoverable	µg/L	9	2.7	15 ^[5]	0	2

Parameter	Units	N ^[1]	MEC ^{[2],[3]}	Most Stringent Criteria	Background	RPA Endpoint ^[4]
Silver, Total Recoverable	µg/L	9	J 4.6	0.7 ^[5]	0.16 ^[6]	3
Zinc, Total Recoverable	µg/L	9	59	20 ^[5]	8 ^[6]	2
Cyanide, Total	µg/L	28	70	1 ^[5]	0	2
Total Residual Chlorine	µg/L	1,681	7,400	2 ^[5]	0	1
Ammonia	µg/L	63	64,000	600 ^[5]	0	2
Acute Toxicity	TUa	--	--	0.3 ^[7]	0	--
Chronic Toxicity	TUc	12	31.2	1 ^[7]	0	2
Phenolic Compounds ^[8]	µg/L	6	3.3	30 ^[5]	0	3
Chlorinated Phenolics ^[9]	µg/L	6	<0.2	1 ^[5]	0	3
Endosulfan ^[10]	µg/L	5	<0.0014	0.009 ^[5]	0	3
Endrin	µg/L	6	<0.00082	0.002 ^[5]	0	3
HCH ^[11]	µg/L	5	<0.00094	0.004 ^[5]	0	3
Radioactivity ^[12]	pCi/L	5	--	^[12]	0	3
Acrolein	µg/L	5	<7.3	220 ^[13]	0	3
Antimony	µg/L	5	34	1,200 ^[13]	0	3
Bis(2-chloroethoxy) methane	µg/L	5	<0.27	4.4 ^[13]	0	3
Bis(2-chloroisopropyl) ether	µg/L	5	<0.3	1,200 ^[13]	0	3
Chlorobenzene	µg/L	5	<0.06	570 ^[13]	0	3
Chromium (III)	µg/L	4	J 2.6	190,000 ^[13]	0	3
Di-n-butyl phthalate	µg/L	5	<0.39	3,500 ^[13]	0	3
Dichlorobenzenes ^[14]	µg/L	5	<0.05	5,100 ^[13]	0	3
Diethyl phthalate	µg/L	5	<0.33	33,000 ^[13]	0	3
Dimethyl phthalate	µg/L	5	<0.39	820,000 ^[13]	0	3
4,6-dinitro-2-methylphenol	µg/L	6	<0.34	220 ^[13]	0	3
2,4-dinitrophenol	µg/L	6	<0.2	4.0 ^[13]	0	3
Ethylbenzene	µg/L	5	J 0.5	4,100 ^[13]	0	3
Fluoranthene	µg/L	5	<0.2	15 ^[13]	0	3
Hexachlorocyclopentadiene	µg/L	5	<0.3	58 ^[13]	0	3
Nitrobenzene	µg/L	5	<0.26	4.9 ^[13]	0	3
Thallium	µg/L	5	<0.08	2 ^[13]	0	3
Toluene	µg/L	5	0.5	85,000 ^[13]	0	3
Tributyltin	µg/L	5	<0.03	0.0014 ^[13]	0	3
1,1,1-trichloroethane	µg/L	5	<0.063	540,000 ^[13]	0	3
Acrylonitrile	µg/L	5	<0.75	0.10 ^[13]	0	3
Aldrin	µg/L	6	<0.0013	0.000022 ^[13]	0	3
Benzene	µg/L	5	<0.061	5.9 ^[13]	0	3
Benzidine	µg/L	5	<7.1	0.000069 ^[13]	0	3
Beryllium	µg/L	5	J 1.2	0.033 ^[13]	0	3
Bis(2-chloroethyl) ether	µg/L	5	<0.68	0.045 ^[13]	0	3
Bis(2-ethylhexyl) phthalate	µg/L	5	9.2	3.5 ^[13]	0	3
Carbon tetrachloride	µg/L	5	<0.074	0.90 ^[13]	0	3
Chlordane ^[15]	µg/L	5	<0.38	0.000023 ^[13]	0	3
Chlorodibromomethane	µg/L	5	<0.067	8.6 ^[13]	0	3
Chloroform	µg/L	5	J 0.97	130 ^[13]	0	3
DDT ^[16]	µg/L	6	<0.00076	0.00017 ^[13]	0	3

Parameter	Units	N ^[1]	MEC ^{[2],[3]}	Most Stringent Criteria	Background	RPA Endpoint ^[4]
1,4-dichlorobenzene	µg/L	6	J 0.1	18 ^[13]	0	3
3,3'-dichlorobenzidene	µg/L	5	< 8.2	0.0081 ^[13]	0	3
1,2-dichloroethane	µg/L	5	< 0.09	28 ^[13]	0	3
1,1-dichloroethylene	µg/L	5	< 0.07	0.9 ^[13]	0	3
Dichlorobromomethane	µg/L	5	< 0.15	6.2 ^[13]	0	3
Dichloromethane	µg/L	5	< 0.28	450 ^[13]	0	3
1,3-dichloropropene	µg/L	6	< 0.07	8.9 ^[13]	0	3
Dieldrin	µg/L	6	< 0.0012	0.00004 ^[13]	0	3
2,4-dinitrotoluene	µg/L	5	< 0.26	2.6 ^[13]	0	3
1,2-diphenylhydrazine	µg/L	5	< 0.34	0.16 ^[13]	0	3
Halomethanes ^[17]	µg/L	6	J 0.25	130 ^[13]	0	3
Heptachlor	µg/L	6	< 0.0012	0.00005 ^[13]	0	3
Heptachlor epoxide	µg/L	6	< 0.00099	0.00002 ^[13]	0	3
Hexachlorobenzene	µg/L	5	< 0.2	0.00021 ^[13]	0	3
Hexachlorobutadiene	µg/L	5	< 0.24	14 ^[13]	0	3
Hexachloroethane	µg/L	5	< 0.32	2.5 ^[13]	0	3
Isophorone	µg/L	5	< 0.31	730 ^[13]	0	3
N-nitrosodimethylamine	µg/L	5	< 0.61	7.3 ^[13]	0	3
N-nitrosodi-N-propylamine	µg/L	5	< 1.3	0.38 ^[13]	0	3
N-nitrosodiphenylamine	µg/L	5	< 0.44	2.5 ^[13]	0	3
PAHs ^[18]	µg/L	5	< 0.2	0.0088 ^[13]	0	3
PCBs ^[19]	µg/L	5	< 0.02	0.000019 ^[13]	0	3
TCDD equivalents ^[20]	µg/L	14	<0.00000131	0.0000000039 ^[13]	0	2
1,1,2,2-tetrachloroethane	µg/L	5	< 0.17	2.3 ^[13]	0	3
Tetrachloroethylene	µg/L	5	< 0.095	2.0 ^[13]	0	3
Toxaphene	µg/L	5	< 0.42	0.00021 ^[13]	0	3
Trichloroethylene	µg/L	5	< 0.07	27 ^[13]	0	3
1,1,2-trichloroethane	µg/L	5	< 0.15	9.4 ^[13]	0	3
2,4,6-trichlorophenol	µg/L	6	< 0.6	0.29 ^[13]	0	3
Vinyl chloride	µg/L	5	< 0.11	36 ^[13]	0	3

[1] Number of data points available for the RPA.

[2] If there is a detected value, the highest reported value is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table. Values preceded with a "J" represent maximum effluent concentrations that were detected, but not quantifiable.

[3] Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present a RP (i.e., Endpoint 1).

[4] Endpoint 1 – RP determined, limit required, monitoring required.

Endpoint 2 – Discharger determined not to have RP, monitoring may be established.

Endpoint 3 – RPA was inconclusive, carry over previous limits if applicable, establish monitoring.

[5] Based on the 6-Month Median in Table 1 of the Ocean Plan.

[6] Background concentrations contained in Table 3 of the Ocean Plan.

[7] Based on the Daily Maximum in Table 1 of the Ocean Plan.

[8] Non-chlorinated phenolic compounds represent the sum of 2,4-dimethylphenol; 4,6-dinitro-2-methylphenol; 2,4,5-dinitrophenol; 2-methylphenol; 4-methylphenol; 2-nitrophenol; 4-nitrophenol; and phenol.

[9] Chlorinated phenolic compounds represent the sum of 4-chloro-3-methylphenol; 2-chlorophenol; pentachlorophenol; 2,4,5-trichlorophenol; and 2,4,6-trichlorophenol.

Parameter	Units	N ^[1]	MEC ^{[2],[3]}	Most Stringent Criteria	Background	RPA Endpoint ^[4]
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- [10] Endosulfan represents the sum of alpha-endosulfan, beta-endosulfan, and endosulfan sulfate.
- [11] HCH (hexachlorocyclohexane) represents the sum of the alpha, beta, gamma (Lindane), and delta isomers of hexachlorocyclohexane.
- [12] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations.
- [13] Based on 30-Day Average in Table 1 of the Ocean Plan.
- [14] Dichlorobenzenes represent the sum of 1,2- and 1,3-dichlorobenzene.
- [15] Chlordane represents the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
- [16] DDT represents the sum of 4,4'-DDT; 2,4'-DDT; 4,4'-DDE; 2,4'-DDE; 4,4'-DDD; and 2,4'-DDD.
- [17] Halomethanes represent the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).
- [18] PAHs (polynuclear aromatic hydrocarbons) represent the sum of acenaphthene; anthracene; 1,2-benzanthracene; 2,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo[a]pyrene; chrysene; dibenzo[a,h]anthracene; fluorine; ideno[1,2,3-cd]pyrene; phenanthrene; and pyrene.
- [19] PCBs (polychlorinated biphenyls) represent 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.
- [20] TCDD equivalents represent the sum of 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 by the table below. U.S. EPA Method 8280 may be used to analyze TCDD equivalents.

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 CDD	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

4. WQBEL Calculations

- a. From the Table 1 WQOs in the Ocean Plan, effluent limitations were calculated according to the following equation for all pollutants, except for acute toxicity and radioactivity:

$C_e = C_o + D_m (C_o - C_s)$ where,

C_e = the effluent limitation ($\mu\text{g/L}$)

C_o = the WQO to be met at the completion of initial dilution ($\mu\text{g/L}$)

C_s = background seawater concentration

D_m = minimum probable initial dilution expressed as parts seawater per part wastewater

- b. Initial dilution (Dm) has been determined to be 133 to 1 by the Central Coast Water Board.
- c. Table 3 of the Ocean Plan establishes background concentrations for some pollutants to be used when determining reasonable potential (represented as “Cs”). In accordance with Table 1 implementing procedures, Cs equals zero for all pollutants not established in Table 3. The background concentrations provided in Table 3 are summarized below:

Table F-13. Pollutants Having Background Concentrations

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

- d. A summary of WQBELs established for Discharge Point No. 001 in this Order are provided in Tables F-14a – F-14c.

Table F-14a. Effluent Limitations, Protection of Marine Aquatic Life

Parameter	Units	Effluent Limitation		
		6-Mo Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]
Arsenic, Total Recoverable	µg/L	670	3,890	10,300
	lbs/day	12	67	177
Cadmium, Total Recoverable	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Chromium (VI), Total Recoverable	µg/L	270	1,070	2,680
	lbs/day	4.64	18	46
Mercury, Total Recoverable	µg/L	5.29	21.4	53.5
	lbs/day	0.091	0.37	0.92
Nickel, Total Recoverable	µg/L	670	2,680	6,700
	lbs/day	12	46	115
Silver, Total Recoverable	µg/L	70	350	920
	lbs/day	1.2	6.01	16
Total Chlorine Residual	µg/L	268	1,072	8,040
	lbs/day	4.6	18	138
Acute Toxicity	TUa	--	4.3	--
Chronic Toxicity	TUc	--	134	--
Phenolic Compounds (non-chlorinated)	µg/L	4,020	16,100	40,200
	lbs/day	69	277	691
Phenolic Compounds (chlorinated)	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Endosulfan	µg/L	1.21	2.41	3.62
	lbs/day	0.021	0.041	0.062
Endrin	µg/L	0.27	0.54	0.80
	lbs/day	0.0046	0.0093	0.014

Parameter	Units	Effluent Limitation		
		6-Mo Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]
HCH	µg/L	0.54	1.07	1.61
	lbs/day	0.0093	0.018	0.028
Radioactivity	[4]			

[1] 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 equal to zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month medial effluent concentration C_e and the observed flow rate, Q , in million gallons per day (MGD).

[2] 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 C_e and the observed flow rate, Q , in MGD.

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

[4] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations

Table F-14b. Effluent Limitations – Protection of Human Health – Non-Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrolein	µg/L	29,500
	lbs/day	507
Antimony	µg/L	160,800
	lbs/day	2,763
Bis(2-chloroethoxy) methane	µg/L	590
	lbs/day	10
Bis(2-chloroisopropyl) ether	µg/L	160,800
	lbs/day	2,763
Chlorobenzene	µg/L	76,400
	lbs/day	1,313
Chromium (III) ^[1]	µg/L	25,500,000
	lbs/day	438,100
Di-n-butyl phthalate	µg/L	469,000
	lbs/day	8,058
Dichlorobenzenes ^[2]	µg/L	683,000
	lbs/day	11,734
Diethyl phthalate	µg/L	4,420,000
	lbs/day	75,937
Dimethyl phthalate	µg/L	109,900,000
	lbs/day	1,888,126
4,6-dinitro-2-methylphenol	µg/L	29,500
	lbs/day	507
2,4-dinitrophenol	µg/L	540
	lbs/day	9.3
Ethylbenzene	µg/L	549,000
	lbs/day	9,432

Parameter	Units	Effluent Limitation
		30-day Average
Fluoranthene	µg/L	2,000
	lbs/day	34
Hexachlorocyclopentadiene	µg/L	7,800
	lbs/day	134
Nitrobenzene	µg/L	660
	lbs/day	11
Thallium	µg/L	270
	lbs/day	4.64
Toluene	µg/L	11,400,000
	lbs/day	195,857
Tributyltin	µg/L	0.188
	lbs/day	0.0032
1,1,1-trichloroethane	µg/L	72,400,000
	lbs/day	1,243,860

[1] Discharger may at their option meet this objective as a Total Chromium objective.

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

Table F-14c. Effluent Limitations – Protection of Human Health –Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrylonitrile	µg/L	13.4
	lbs/day	0.23
Aldrin	µg/L	0.00295
	lbs/day	5.07 x 10 ⁻⁵
Benzene	µg/L	791
	lbs/day	14
Benzidine	µg/L	0.00925
	lbs/day	0.00016
Beryllium	µg/L	4.42
	lbs/day	0.076
Bis(2-chloroethyl) ether	µg/L	6.03
	lbs/day	0.10
Bis(2-ethylhexyl) phthalate	µg/L	469
	lbs/day	8.06
Carbon tetrachloride	µg/L	121
	lbs/day	2.08
Chlordane ^[1]	µg/L	0.00308
	lbs/day	5.3 x 10 ⁻⁵
Chlorodibromomethane	µg/L	1,152
	lbs/day	20
Chloroform	µg/L	17,400
	lbs/day	299
DDT ^[2]	µg/L	0.0228

Parameter	Units	Effluent Limitation
		30-day Average
	lbs/day	0.00039
1,4-dichlorobenzene	µg/L	2,410
	lbs/day	41
3,3-dichlorobenzidine	µg/L	1.09
	lbs/day	0.019
1,2-dichloroethane	µg/L	3,750
	lbs/day	64
1,1-dichloroethylene	µg/L	120
	lbs/day	2.06
Dichlorobromomethane	µg/L	830
	lbs/day	14
Dichloromethane	µg/L	60,300
	lbs/day	1,036
1,3-dichloropropene	µg/L	1,190
	lbs/day	20
Dieldrin	µg/L	0.00536
	lbs/day	9.21 x 10 ⁻⁵
2,4-dinitrotoluene	µg/L	348
	lbs/day	6.0
1,2-diphenylhydrazine	µg/L	21.4
	lbs/day	0.37
Halomethanes ^[3]	µg/L	17,400
	lbs/day	299
Heptachlor	µg/L	0.0067
	lbs/day	1.15 x 10 ⁻⁴
Heptachlor epoxide	µg/L	0.00268
	lbs/day	4.6 x 10 ⁻⁵
Hexachlorobenzene	µg/L	0.0281
	lbs/day	0.00048
Hexachlorobutadiene	µg/L	1,880
	lbs/day	32
Hexachloroethane	µg/L	335
	lbs/day	5.8
Isophorone	µg/L	98,000
	lbs/day	1,684
N-nitrosodimethylamine	µg/L	978
	lbs/day	17
N-nitrosodi-n-propylamine	µg/L	50.9
	lbs/day	0.87
N-nitrosodiphenylamine	µg/L	335
	lbs/day	5.8
PAHs ^[4]	µg/L	1.18
	lbs/day	0.020

Parameter	Units	Effluent Limitation
		30-day Average
PCBs ^[5]	µg/L	0.00255
	lbs/day	4.38 x 10 ⁻⁵
1,1,2,2-tetrachloroethane	µg/L	310
	lbs/day	5.3
Tetrachloroethylene	µg/L	268
	lbs/day	4.6
Toxaphene	µg/L	0.0281
	lbs/day	0.00048
Trichloroethylene	µg/L	3,620
	lbs/day	62
1,1,2-trichloroethane	µg/L	1,260
	lbs/day	22
2,4,6-trichlorophenol	µg/L	39
	lbs/day	0.67
Vinyl chloride	µg/L	4,820
	lbs/day	83

- [1] Sum of chlorodane-alpha, chlorodane-gamma, chlorodene-alpha, chlorodene-gamma, nonachlor-alpha, nonachlor gamma, and oxychlorodane.
- [2] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
- [3] Sum of bromoform, bromoethane (methylbromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.
- [4] Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorine, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- [5] 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.

5. Whole Effluent Toxicity (WET)

WET limitations protect receiving water from the aggregated toxic effect of a mixture of pollutants in 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 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.

Order No. R3-2008-0065 established effluent limitations for both acute and chronic toxicity and semiannual monitoring for chronic toxicity. There was no acute toxicity monitoring requirement, thus an RPA could not be performed. The effluent limitations and monitoring requirements will be retained in this permit. The RPA for chronic toxicity demonstrates that chronic toxicity does not appear to have reasonable potential to exceed water quality objectives. However, effluent data for total residual chlorine indicate reasonable potential to exceed water quality objectives for the protection of marine aquatic life. Due to the potential for toxic impacts to aquatic life, reasonable potential for chronic toxicity is retained based on Step 13 of Appendix VI of the Ocean Plan, which

requires the consideration of all available information to determine if a WQBEL is required. Further, section III.C.4.c of the Ocean Plan requires that chronic toxicity be monitored when dilution is between 100:1 and 350: 1. Monitoring for chronic toxicity has been retained to evaluate compliance with the applicable effluent limitation and based on the available dilution for the discharge location of 133:1.

The Discharger will be required to implement a Toxicity Reduction Evaluation (TRE) Workplan, as described in section V.C.2.a of the Order. When monitoring measures WET in the effluent above the limitation established by the Order, the Discharger must resample, if the discharge is continuing, and retest.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. 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, with some exceptions discussed below, are at least as stringent as the effluent limitations in the previous Order.

Effluent limitations for ammonia, copper, lead, selenium, and zinc have been removed from this Order. The removal of the effluent limitations for these parameters is based on the availability of new information, including available effluent data, consistent with 40 C.F.R. 122.44(i)(B).

2. Antidegradation Policies

Provisions of this Order are consistent with applicable anti-degradation policy expressed by NPDES regulations at 40 C.F.R. 131.12 and by State Water Board Resolution No. 68-16. The Order does not authorize increases in discharge rates or pollutant loadings, and its limitations and conditions otherwise assure maintenance of the existing quality of receiving waters.

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 BOD₅, TSS, oil and grease, turbidity, pH, and settleable solids. Restrictions on these pollutants are discussed in the Fact Sheet, in section IV.B. 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.

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

Table F-15. Final Effluent Limitations

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Total Suspended Solids (TSS) ^[1]	mg/L	30	45	--
	lbs/day ^[2]	515	773	--
Oil and Grease	mg/L	25	40	75
	lbs/day ^[2]	430	687	1,289
Settleable Solids	ml/L	1.0	1.5	3.0
pH	standard units	6.0 – 9.0 at all times		
Turbidity	NTU	75	100	225

^[1] The average monthly percent removal for BOD and TSS shall not be less than 85 percent.

^[2] Mass based effluent limitations were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * Design flow (2.06 MGD) * conversion factor (8.34)

5. **Percent Removal:** The average monthly percent removal of BOD₅ and TSS shall not be less than 85 percent.
6. **Dry Weather Flow.** Effluent peak seasonal dry weather flow shall not exceed a monthly average of 2.36 million gallons per day.
7. **Bacteria**
 - a. Total Coliform
 - i. The total coliform concentrations shall not exceed a 30-day geometric mean of 23 MPN/100 mL.
 - ii. No total coliform single sample shall exceed 2,400 MPN/100 mL.

Table F-16a. Final Effluent Limitations, Protection of Marine Aquatic Life

Parameter	Units	Effluent Limitation		
		6-Mo Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]
Arsenic, Total Recoverable	µg/L	670	3,890	10,300
	lbs/day	12	67	177
Cadmium, Total Recoverable	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Chromium (VI), Total Recoverable	µg/L	270	1,070	2,680
	lbs/day	4.64	18	46
Mercury, Total Recoverable	µg/L	5.29	21.4	53.5
	lbs/day	0.091	0.37	0.92
Nickel, Total Recoverable	µg/L	670	2,680	6,700
	lbs/day	12	46	115
Silver, Total Recoverable	µg/L	70	350	920
	lbs/day	1.2	6.01	16
Total Chlorine Residual	µg/L	268	1,072	8,040
	lbs/day	4.6	18	138
Acute Toxicity	TUa	--	4.3	--
Chronic Toxicity	TUc	--	134	--

Parameter	Units	Effluent Limitation		
		6-Mo Median ^[1]	Maximum Daily ^[2]	Instantaneous Maximum ^[3]
Phenolic Compounds (non-chlorinated)	µg/L	4,020	16,100	40,200
	lbs/day	69	277	691
Phenolic Compounds (chlorinated)	µg/L	130	540	1,340
	lbs/day	2.2	9.3	23
Endosulfan	µg/L	1.21	2.41	3.62
	lbs/day	0.021	0.041	0.062
Endrin	µg/L	0.27	0.54	0.80
	lbs/day	0.0046	0.0093	0.014
HCH	µg/L	0.54	1.07	1.61
	lbs/day	0.0093	0.018	0.028
Radioactivity		[4]		

[1] 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 equal to zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month medial effluent concentration C_e and the observed flow rate, Q, in million gallons per day (MGD).

[2] 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 C_e and the observed flow rate, Q, in MGD.

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

[4] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations.

Table F-16b. Final Effluent Limitations – Protection of Human Health – Non-Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrolein	µg/L	29,500
	lbs/day	507
Antimony	µg/L	160,800
	lbs/day	2,763
Bis(2-chloroethoxy) methane	µg/L	590
	lbs/day	10
Bis(2-chloroisopropyl) ether	µg/L	160,800
	lbs/day	2,763
Chlorobenzene	µg/L	76,400
	lbs/day	1,313
Chromium (III) ^[1]	µg/L	25,500,000
	lbs/day	438,100
Di-n-butyl phthalate	µg/L	469,000
	lbs/day	8,058
Dichlorobenzenes ^[2]	µg/L	683,000
	lbs/day	11,734
Diethyl phthalate	µg/L	4,420,000
	lbs/day	75,937
Dimethyl phthalate	µg/L	109,900,000

Parameter	Units	Effluent Limitation
		30-day Average
4,6-dinitro-2-methylphenol	lbs/day	1,888,126
	µg/L	29,500
2,4-dinitrophenol	lbs/day	507
	µg/L	540
Ethylbenzene	lbs/day	9.3
	µg/L	549,000
Fluoranthene	lbs/day	9,432
	µg/L	2,000
Hexachlorocyclopentadiene	lbs/day	34
	µg/L	7,800
Nitrobenzene	lbs/day	134
	µg/L	660
Thallium	lbs/day	11
	µg/L	270
Toluene	lbs/day	4.64
	µg/L	11,400,000
Tributyltin	lbs/day	195,857
	µg/L	0.188
1,1,1-trichloroethane	lbs/day	0.0032
	µg/L	72,400,000
	lbs/day	1,243,860

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

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

Table F-16c. Final Effluent Limitations – Protection of Human Health – Carcinogens

Parameter	Units	Effluent Limitation
		30-day Average
Acrylonitrile	µg/L	13.4
	lbs/day	0.23
Aldrin	µg/L	0.00295
	lbs/day	5.07 x 10 ⁻⁵
Benzene	µg/L	791
	lbs/day	14
Benzidine	µg/L	0.00925
	lbs/day	0.00016
Beryllium	µg/L	4.42
	lbs/day	0.076
Bis(2-chloroethyl) ether	µg/L	6.03
	lbs/day	0.10
Bis(2-ethylhexyl) phthalate	µg/L	469
	lbs/day	8.06
Carbon tetrachloride	µg/L	121
	lbs/day	2.08

Parameter	Units	Effluent Limitation
		30-day Average
Chlordane ^[1]	µg/L	0.00308
	lbs/day	5.3 x 10 ⁻⁵
Chlorodibromomethane	µg/L	1,152
	lbs/day	20
Chloroform	µg/L	17,400
	lbs/day	299
DDT ^[2]	µg/L	0.0228
	lbs/day	0.00039
1,4-dichlorobenzene	µg/L	2,410
	lbs/day	41
3,3-dichlorobenzidine	µg/L	1.09
	lbs/day	0.019
1,2-dichloroethane	µg/L	3,750
	lbs/day	64
1,1-dichloroethylene	µg/L	120
	lbs/day	2.06
Dichlorobromomethane	µg/L	830
	lbs/day	14
Dichloromethane	µg/L	60,300
	lbs/day	1,036
1,3-dichloropropene	µg/L	1,190
	lbs/day	20
Dieldrin	µg/L	0.00536
	lbs/day	9.21 x 10 ⁻⁵
2,4-dinitrotoluene	µg/L	348
	lbs/day	6.0
1,2-diphenylhydrazine	µg/L	21.4
	lbs/day	0.37
Halomethanes ^[3]	µg/L	17,400
	lbs/day	299
Heptachlor	µg/L	0.0067
	lbs/day	1.15 x 10 ⁻⁴
Heptachlor epoxide	µg/L	0.00268
	lbs/day	4.6 x 10 ⁻⁵
Hexachlorobenzene	µg/L	0.0281
	lbs/day	0.00048
Hexachlorobutadiene	µg/L	1,880
	lbs/day	32
Hexachloroethane	µg/L	335
	lbs/day	5.8
Isophorone	µg/L	98,000
	lbs/day	1,684
N-nitrosodimethylamine	µg/L	978

Parameter	Units	Effluent Limitation
		30-day Average
	lbs/day	17
N-nitrosodi-n-propylamine	µg/L	50.9
	lbs/day	0.87
N-nitrosodiphenylamine	µg/L	335
	lbs/day	5.8
PAHs ^[4]	µg/L	1.18
	lbs/day	0.020
PCBs ^[5]	µg/L	0.00255
	lbs/day	4.38 x 10 ⁻⁵
1,1,2,2-tetrachloroethane	µg/L	310
	lbs/day	5.3
Tetrachloroethylene	µg/L	268
	lbs/day	4.6
Toxaphene	µg/L	0.0281
	lbs/day	0.00048
Trichloroethylene	µg/L	3,620
	lbs/day	62
1,1,2-trichloroethane	µg/L	1,260
	lbs/day	22
2,4,6-trichlorophenol	µg/L	39
	lbs/day	0.67
Vinyl chloride	µg/L	4,820
	lbs/day	83

[1] Sum of chlorodane-alpha, chlorodane-gamma, chlorodene-alpha, chlorodene-gamma, nonachlor-alpha, nonachlor gamma, and oxychlorodane.

[2] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

[3] Sum of bromoform, bromoethane (methylbromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

[4] Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorine, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

[5] 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.

E. Land Discharge Specifications – Not Applicable

F. Recycling Specifications – Not Applicable

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 for Discharge Point No. 001 to the Pacific Ocean are consistent with the water quality objectives contained in the Ocean Plan and Basin Plan, and are retained from the previous Order.

B. Groundwater – Not Applicable

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

The Order may be modified in accordance with the requirements set forth at 40 C.F.R. 122 and 124, to include appropriate conditions or limits based on newly available information, or to implement any new State water quality objectives that are approved by the U.S. EPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order will be reopened to incorporate such limitations.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

The Order contains the requirement to perform a TRE, if chronic toxicity limitation is exceeded. When toxicity monitoring measures toxicity in the effluent above a whole effluent toxicity effluent limitation established by the Order, the Discharger is required to resample and retest. When all monitoring results are available, the Executive Officer can determine whether to initiate enforcement action, whether to require the Discharger to implement TRE requirements, or whether other measures are warranted.

b. Effluent Bacteria Evaluation

To evaluate potential impacts on human health and assist in public health determinations, the Order contains requirements to conduct monitoring when effluent limitations for total coliform bacteria are exceeded in consecutive monitoring events. The Discharger shall conduct near shore and surf zone monitoring for bacteria in accordance with section VIII.A of the Monitoring and Reporting Program. Results of the increased monitoring for bacteria shall be summarized and submitted in a report to the Executive Officer.

3. Best Management Practices and Pollution Prevention

a. Pollution Prevention Program

A Pollution Prevention Program is a regulatory program administered by the Discharger to prevent the introduction of pollutants into the Facility which will interfere with the operation of the treatment works, pass through the treatment facility, reduce opportunities to recycle and reuse municipal wastewater and sludge, or expose the Facility employees to hazardous chemicals. Although a 301(h) waiver was not applied for or granted to the Discharger, the Facility is anticipated to continue to operate as it has under previous 301(h) waivers, and is unable to provide full secondary treatment to all effluent discharged from the Facility. Thus, this permit continues to implement pollution prevention requirements specified in 40 C.F.R. Part 125.66(d) in lieu of the general pretreatment regulations specified in 40 C.F.R. Part 403.

b. Pollutant Minimization Program

The 2015 Ocean Plan establishes requirements for a Pollutant Minimization Program (PMP) to reduce all potential sources of a pollutant through pollutant minimization control strategies. This Order implements the requirements of section III.C.9 of the Ocean Plan.

4. Construction, Operation, and Maintenance Specifications

The Facility shall be operated as specified under Standard Provisions, Attachment D.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids Management

The use and disposal of biosolids is regulated under federal and State laws and regulations, including permitting requirements and technical standards included in 40 C.F.R. 503. The Discharger is required to comply with the standards and time schedules contained in 40 C.F.R. 503.

Title 27, CCR, Division 2, Subdivision 1, section 20005 establishes approved methods for the disposal of collected screenings, residual sludge, biosolids, and other solids removed from liquid wastes. Requirements to ensure the Discharger disposes of solids in compliance with State and federal regulations have been included in this Order.

6. Other Special Provisions

a. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-003-DWQ).

The Order requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-003-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.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 C.F.R. section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Central Coast Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E, establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

In addition to influent flow monitoring, monitoring for BOD₅ and TSS is required to determine compliance with the Order’s 85 percent removal requirement for these pollutants. Influent monitoring requirements have been retained from the previous Order.

B. Effluent Monitoring

Effluent monitoring is necessary to determine compliance with effluent limitations and evaluate compliance with applicable water quality objectives and criteria. Effluent monitoring requirements from the previous Order for Discharge Point No. 001 are retained in this Order, with some exceptions.

The previous Order established an effluent limitation for acute toxicity, but did not require monitoring. Due to the procedures in Appendix VI of the Ocean Plan, and State and federal anti-backsliding regulations, the effluent limitation for acute toxicity has been carried over to this Order. Acute toxicity monitoring requirements have not been added, based on the use of the more sensitive chronic toxicity monitoring required and initial dilution of 133:1.

Although the effluent limitations for chronic toxicity was retained due to the determination of reasonable potential for various Ocean Plan Table 1 parameters, the MEC for chronic toxicity was 31.2 TUc. This is significantly less than the applicable WQBEL of 134 TUc. Thus, due to the limited risk to exceed the applicable WQBEL, the monitoring frequency for chronic toxicity has been reduced from semiannual to annual.

Monitoring for Ocean Plan Table 1 metals and non-metals for protection of marine aquatic life without reasonable potential was established as once per year. This reduces the monitoring frequency from semiannual to annual.

Monitoring of the parameters for protection of human health without reasonable potential was established as once per permit term. This is consistent with other ocean discharge permits within the region.

Because ammonia did not demonstrate reasonable potential to exceed water quality objectives, the monitoring for ammonia was reduced from monthly to annually. Because the data is not necessary to evaluate compliance with applicable water quality objectives,

monitoring for nitrate, urea, orthophosphate, and dissolved silica was reduced from semiannual to annual.

C. Whole Effluent Toxicity Testing Requirements

See the previous section regarding monitoring frequencies for chronic toxicity. WET limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Chronic toxicity testing is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. Accelerated monitoring requirements have been established in the attached MRP in order to confirm the presence of toxicity in the effluent prior to implementation of TIE and TRE procedures.

D. Receiving Water Monitoring

1. Surface Water

Surf zone monitoring is conducted to assess bacteriological conditions in areas used for body-contact sports (e.g., surfing) and where shellfish may be harvested for human consumption and to assess aesthetic conditions for general recreational uses (e.g., picnicking, boating, etc.).

Ocean monitoring is necessary to evaluate the impacts of the discharge on the receiving water and to determine compliance with surface water limitations.

Surface water receiving water monitoring requirements have been reduced to annually, consistent with the Discharger's demonstrated compliance and consistent with other ocean discharge permits within the region.

Water column surveys have been removed from this permit based on consistent compliance with surface water limitations, analysis of previous water column surveys, planned upgrades to full secondary treatment, and consistent with other municipal wastewater treatment facilities permitted to discharge to ocean waters in the Central Coast region.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. Benthic Monitoring

Benthic monitoring is necessary to assess the temporal and spatial occurrence of pollutants in local marine sediments and to evaluate the physical and chemical quality of the sediments in relation to the outfall. This Order decreases the frequency of benthic sampling from annual to once per permit based on the Facility upgrade to full secondary treatment, previous monitoring results, and consistent with other similar municipal wastewater treatment facilities permitted to discharge to ocean waters in the Central Coast region. Monitoring is required in the first year of the permit in order to maintain a continuous dataset with previous monitoring.

2. Biosolids Monitoring

Biosolids monitoring shall be reported in the annual report in accordance with 40 C.F.R. 503. Biosolids monitoring requirements are similar to the previous Order.

3. Ocean Outfall Inspection

This Order retains the requirement of the previous Order to conduct annual visual inspections of the outfall and diffuser structure and provide a report of this inspection to the Central Coast Water Board regarding the system's physical integrity.

VIII. PUBLIC PARTICIPATION

The Central Coast Water Board considered the issuance of WDRs that will serve as an NPDES permit for the City of Morro Bay/Cayucos Sanitary District Wastewater Treatment Plant. As a step in the WDRs adoption process, Central Coast Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through publication in the local paper and posting in Discharger's City Hall.

The public had access to the agenda and any changes in dates and locations through the Central Coast Water Board's web site at:
<http://www.waterboards.ca.gov/centralcoast/>

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were encouraged to be sent via email to centralcoast@waterboards.ca.gov. Comments may also have been submitted in person, or by mail, to the Executive Office at the Central Coast Water Board at:

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

To be fully responded to by staff and considered by the Central Coast Water Board, the written comments were due at the Central Coast Water Board office by 5:00 p.m. on **November 6, 2017**.

The Central Coast Water Board received written comments from the City of Morro Bay on November 6, 2017, as follows below. Water Board staff's response to comments is provided as well.

- 1. Provide additional time to review an administrative draft of the pending time schedule order.** We understand a time schedule order with interim limits will be prepared to address compliance with the new permit. We are concerned that some of the monitoring requirements are not consistent with a secondary treatment permit and may carry over to a permit for the new facility. We respectfully request sufficient time for the City to review an administrative draft of the pending time schedule order.

Staff response: Water Board staff will be working closely with Discharger to develop realistic milestones and compliance dates for the pending time schedule order. Water Board staff intends to have the time schedule order implemented prior to the effective date of this permit.

2. **Update the Draft Permit to conform to the current Ocean Plan.** The Draft Permit cites objectives from the 2012 California Ocean Plan. However, that plan has been superseded by the 2015 Ocean Plan. The Tentative Order (Draft Permit) should revise its requirements to conform to the current Ocean Plan.

Staff Response: Corrections have been made.

3. **Cite a Consistent Annual Report Due Date of April 1.** The Draft Permit contains conflicting dates for the submission of the Annual Monitoring Report, including January 30 (Page D-13), February 1 (Table E-12), and April 1 (Page E-26). We request the various references to an annual monitoring report submission deadline be revised to reflect an April 1 deadline. Only the April 1st deadline is tenable. That date is consistent with the Current Permit's submission deadline requirement. Earlier submission dates would be difficult to achieve. The data collection, laboratory processing of field samples, and analysis of instrumental data are sequential and require a finite amount of time. Many of these steps can only be initiated after the beginning of the year. An earlier deadline would leave little time for assimilating and reporting on the results, and the quality and scope of the final report would suffer greatly.

Staff Response: Annual monitoring report expectation is April 1st; corrections have been made for consistency.

4. **Eliminate the Cat-Litter Public-Outreach Program.** The Draft Permit retains a nebulous cat-litter requirement that is an outdated relic of the previous permit-renewal process conducted a decade ago. This problematic permit requirement has been the subject of considerable criticism in every annual monitoring report since the current permit was approved (See Pages 2-17, 2-18, and 3-9 in <http://www.morro-bay.ca.us/Archive.aspx?ADID=2757> and prior annual reports posted on the City of Morro Bay Website since 2009). As discussed in those reports, we request elimination of this requirement for the following reasons.
 - a) The requirement arose out of a Section 7 consultation with the USFW service by the EPA as part of their biological evaluation of current 301(h)-modified permit. The new Draft Permit is not 301(h) modified, and therefore EPA and USFW evaluations and Section 7 consultations are no longer part of the regulatory process. Consequently, there is no mechanism for those regulatory agencies to address new scientific information and revisit the original Cat-Litter requirement.
 - b) Shortly after final approval of the current MBCSD permit in 2009, results from a comprehensive field study (Johnson et al. 2009) were published that confirmed that disease vectors unrelated to WWTP discharge are responsible for the observed *T. gondii* exposure in otters, and that the epicenter for sea otter infection is not within Estero Bay. As such, there is no longer any scientific rationale for continuation of a dedicated outreach program specific to cat-litter disposal in the MBCSD collection system.
 - c) None of the other regional ocean dischargers have a similar requirement, including the recently approved permits for Goleta, Avila, and Carpinteria. It is not as though the MBCSD is the only ocean discharger with cats located within its collection area, or that have southern sea otters within its receiving waters.
 - d) Numerous nebulous requirements dealing with cat litter are included in multiple locations within the Draft Permit (Pages 20, E-27, F-7, F-40, and F-41). The

annual requirements for “implementation goals...work plans...quantifiable measures for goals...descriptions of actions taken...reevaluations with adequate justification” are vague and make quantitative evaluation of compliance with the requirement unattainable.

Staff Response: Water Board staff concurs with Discharger’s comments and has reviewed the data from the annual reports submitted. Since the time of the original cat-litter public outreach program, the Central Coast Water Board has shifted similar programs to NPDES stormwater programs, when the programs are deemed necessary. Consistent with this practice for other areas in the Central Coast region, we will remove the cat-litter program from this permit and the stormwater program would be the appropriate regulatory program, if deemed necessary.

5. Eliminate the Acute Toxicity Requirement. A requirement for an annual acute toxicity test was added to the Draft Permit apparently because the Current Permit did not require that test and therefore, an RPA could not be performed (Page F-31). However, the acute toxicity test requirement was specifically excluded from the Current Permit for a variety of reasons. All of those same reasons apply to the Draft Permit. Specifically, ammonia interference introduces substantial inaccuracy in reported test results, and there is no technical or regulatory rationale for requiring acute toxicity testing of MBCSD effluent. For the following reasons, we request elimination of the acute toxicity testing requirement from the effluent monitoring requirements (Table E-3 on Page E-56). Alternatively, if inclusion of some form of acute testing requirement is deemed necessary, the requirement for conducting an acute test should be triggered by an elevated chronic test result that exceeds 90% (120 TUc) of the effluent limit. At a minimum, given the great uncertainty in the reported acute toxicity results, all Toxicity Reduction Requirements should only be based on a chronic toxicity triggering level, and not a trigger related to the acute bioassay results. Much of the rationale for eliminating the acute toxicity monitoring requirement was presented during the development of the current discharge permit, and has been presented in annual monitoring reports prior to 2009 (see Pages 2-38 thru 2-41 of the 2008 Annual Report available at: <http://www.morro-bay.ca.us/Archive.aspx?ADID=124>). Some of the major points are summarized below.

- a) The Draft Permit fact sheet [Page F-31] correctly states that the California Ocean Plan (COP) requires chronic toxicity testing for dischargers when dilution is between 100:1 to 350:1, but does not acknowledge that the COP also states that acute tests are discretionary within that dilution range. In fact, at 133:1, the MBCSD discharge is at the lower end of that range, and for dischargers with slightly lower dilutions, below 100:1, acute testing is not required under any circumstances.
- b) Acute testing is unnecessarily redundant when chronic testing is also required as part of the WDRs because chronic tests provide far more accurate and sensitive measures of effluent toxicity. In Functional Equivalent Documents supporting the COP, State Board “Staff agrees that critical life stage tests are more sensitive indicators of receiving water impacts than acute toxicity tests.”
- c) Acute tests conducted on MBCSD effluent during prior permit cycles have resulted in highly erroneous measures of toxicity that provided no insight into the actual toxicity of the discharge. Over two decades of acute testing prior to the current permit have demonstrated that the presence of ammonia in the MBCSD effluent samples severely compromises the accurate determination of acute toxicity.
- d) Even within these past artificially elevated acute-toxicity measurements, the reported acute toxicity of the MBCSD discharge has been less than half of the more-stringent effluent limitation cited in the WDRs of that period. Consequently,

even the past artificially inflated acute-toxicity values cannot be considered a threat to beneficial uses.

- e) The acute toxicity limit is intended to prevent lethality to organisms passing through the acute mixing zone. For the MBCSD discharge, the prescribed mixing zone is highly localized around the outfall, and extends only 1.5 m (4.9 ft) from the point of discharge. Field measurements collected at that distance within MBCSD discharge jets show that the effluent had already been diluted more than 100-fold, which is 25-times more dilute than the effluent tested in the bioassays. The only conceivable beneficial use that could be impacted within that narrow zone would be fishing. However, finfish are likely to avoid the turbulent discharge jet. Acute toxicity tests continuously expose organisms over a four-day period and do not reflect the brief duration of any potential finfish exposure.

Staff Response: Water Board staff has reviewed the existing Order's permitting history with regards to acute toxicity testing requirements. The existing permit's Fact Sheet (page F-36) provided Staff Response 6 regarding the removal of acute toxicity monitoring requirement. The same conditions still apply. Chronic toxicity testing is a more sensitive and accurate measure of whole effluent toxicity than acute toxicity. In this case, with an initial dilution of 133:1, chronic toxicity testing provides adequate protection of beneficial uses. Acute toxicity testing is unnecessary. Staff has removed the acute toxicity monitoring requirement.

- 6. **Reduce the Monitoring Frequency for Cyanide and TCDD Equivalents.** Based on an RPA conducted on a limited dataset collected 3 years ago, the Draft Permit established monitoring frequencies for cyanide of twice per year and a TCDD equivalents (dioxin) monitoring frequency of once per year. However, the RPA finding that these two constituents have a reasonable potential to exceed water-quality objectives is an artifact of uncertainty introduced by the limited time span of the datasets. Attachment A to the comment letter contains the RPA input and results for a more representative 14-year dataset spanning the period from 2004 thru 2017. Analysis of that data conclusively determines an RPA endpoint of 2, indicating that an effluent limitation is not required for those pollutants. We request the monitoring frequency for cyanide and TCDD equivalents be reduced to once in the life of the permit.

Staff Response: Water Board staff reviewed the updated reasonable potential analysis for cyanide and TCDD provided by the Discharger. The data supports an endpoint of 2, and therefore similar to other endpoint 2 pollutants, an effluent limitation is not required for those pollutants, and the frequency of monitoring has been changed to similarly grouped parameters with endpoint 2 (once per permit term).

- 7. **Remove the effluent nutrient monitoring requirement.** A provision for nutrient monitoring was incorporated into the Current Permit to address concerns regarding the MBCSD's potential nutrient contribution to the generation of harmful algal blooms offshore central California. However, chemical analyses on nitrate, urea, orthophosphate, and silica that were conducted in every annual report produced in the current permit cycle, demonstrate unequivocally that nutrient concentrations within the MBCSD effluent, and their mass loading to the marine environment from its discharge, are miniscule compared to both other central-coast dischargers, and the contribution from regional streams and rivers. These nutrient comparisons are provided in Section 2.2.11 on Pages 2-32 thru 2-34 and on Pages 5-9 and 5-10 of 2015 Annual Report available at: <http://www.morro-bay.ca.us/Archive.aspx?ADID=2757>. Some of that discussion is summarized below. We request that the effluent nutrient monitoring requirement (nitrate, urea, orthophosphate, and dissolved silica in Table E-3 on Page E-5 of the draft permit) be removed.

- a) In contrast to the other effluent parameters, there are no effluent limits associated with these four nutrients and therefore, they have no bearing on compliance assessments.
- b) Nutrient loading from the MBCSD WWTP is several orders-of-magnitude lower than both runoff and discharge from other central-coast WWTP's, and far smaller than the nutrient loading from naturally occurring processes such as upwelling.
- c) Additionally, it is clear that nutrient loads from the MBCSD discharge are unrelated to the frequency or intensity of the algal blooms occurring along this stretch of coastline. Consequently, continued nutrient monitoring provides no scientifically valid or usable information relevant to the prediction or management of algal blooms, and should be discontinued.
- d) Other, much larger central coast dischargers are no longer required to monitor for nutrients and it is unreasonable to impose this additional requirement only on the MBCSD discharge.

Staff Response: Water Board staff does not recommend revisions to the draft permit based on Discharger's comments. Nutrient discharge and loading continues to be a concern in the region, and other municipal wastewater treatment plants are monitoring for nutrient discharges. The nutrient monitoring data continues to provide value to potential impacts to the discharge environment.

- 8. Reduce the requirements for offshore benthic surveys and eliminate the requirement for water-column surveys.** The requirement for annual offshore benthic and water-column surveys is not warranted for a variety of reasons. We request that the requirement for water-column surveys be eliminated, and the frequency of benthic surveying be reduced to once-in-the-life of the permit. Justification and discussion is provided below.
- a) The offshore benthic and water-column surveys are labor intensive to conduct and time consuming to analyze, and as a result, are far more expensive than end-of-pipe chemical assays.
 - b) The months of effort expended on these offshore surveys will not result in monitoring program that is more protective of the marine environment than achieved by the routine onshore effluent monitoring already implemented in the permit. End-of-pipe monitoring provides an immediate and easily-interpreted assessment of potential marine impacts that may result from a decline in effluent quality. In contrast, offshore monitoring requires complex analyses to determine the presence of long-term changes in a highly variable marine environment.
 - c) The quarter-century of data already amassed by the MBCSD offshore monitoring program has never indicated any marine impacts from the discharge. It is highly unlikely that continued offshore monitoring of similar intensity will result in a different finding.
 - d) The proposed offshore monitoring program is more intensive than that of other dischargers of similar or larger discharge volume. For example, as with most small ocean dischargers, the new Goleta permit does not require offshore water-column surveys, and limits the benthic sampling to once-in-the-life of the permit. This level of monitoring is also appropriate for the MBCSD discharge given that its flow is four-times smaller, its offshore dilution is 10% greater, and it services a less-industrialized collection area.
 - e) The small volume of effluent discharged by the MBCSD is much higher quality than that achieved by primary treatment alone because the majority of effluent receives secondary treatment. TSS and BOD concentrations within the MBCSD discharge are the only effluent constituents that may occasionally slightly exceed

full-secondary standards, but because of the limited discharge volume, TSS and BOD loading to the environment is similarly limited. Moreover, the MBCSD discharge volume has declined in recent years and additional declines are expected when the Cayucos treatment plant is commission next year.

- f) The Draft MBCSD Permit is no longer covered by Section 301(h) of the Clean Water Act, and as such, it not legally subject to the intensive offshore monitoring program specifically mandated in that section of the Federal Regulations. From a regulatory standpoint, it is inconsistent to impose these exhaustive monitoring requirements when the other 301(h) provisions were eliminated in the Draft Permit.

Staff Response: Water Board staff agrees with the Discharger’s comments regarding the conclusions from the existing, intensive monitoring program. The comprehensive data set gathered during the previous Orders’ offshore monitoring programs do not indicate an impact from the discharge on the marine environment. Additionally, since the Facility will no longer operate with a 301(h) waiver, reducing the monitoring to requirements consistent with other facilities within the region is supported. Monitoring requirements have been changed accordingly.

- 9. **Correct the effluent concentration and loading limits for heptachlor and Heptachlor epoxide in Table 7 on Page 9, Table F-6 on Page F-13, and Table F14c on Pages F-29 and F-30.** The respective concentration limits should be 0.0067 µg/L and 0.00268 µg/L, and the loadings should be 1.15 x 10⁻⁴ lbs/day and 4.6 x 10⁻⁵ lbs/day. This request was made in Comment 32 of Attachment F – Fact Sheet for the current permit, but was never implemented in the final permit.

Staff Response: Water Board staff verified the units with the 2015 California Ocean Plan. The Discharger is correct regarding the values. Corrections have been made.

- 10. The City also requests the Regional Water Quality Control Board acknowledge the City is pursuing a recycled water program, and salt reduction in the collection system will be critical to reducing capital and operating cost for production of recycled water. Based on sampling conducted in June and July of 2015, the City estimated that brine from self-regenerating water softeners contributed 12% of total dissolved solids (TDS) and 19% of chlorides to wastewater treatment plant (WWTP) influent (January 5, 2016, Presentation to Water Reclamation Facility Citizens Advisory Committee).

Staff Response: The Central Coast Water Board encourages, consistent with the State Recycled Water Policy, communities to plan for maximizing the extent of recycled water production and use. Water Board staff will continue to work with Dischargers to encourage and facilitate recycled water projects, including the City of Morro Bay.

C. Public Hearing

The Central Coast Water Board held a public hearing on the proposed WDRs during its regular Board meeting as follows:

Date: December 7, 2017
Time: 8 am – 5 pm
Location: Central Coast Water Board
895 Aerovisa Place, Suite 101

San Luis Obispo, CA 93401

Interested persons were invited to attend. At the public hearing, the Central Coast Water Board offered to hear testimony, pertinent to the discharge, WDR's, and permit. For accuracy of the record, important testimony is requested in writing. The item was considered on the consent calendar. Mr. Rob Livick from the City of Morro Bay Public Works Department provided a brief update on the City's activities presented in the Staff Report for this item. No members of the public requested comment, or was any provided.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 calendar days of the Regional Water Board's action.

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

For instructions on how to file a petition for review, see:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged through the Central Coast 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 Central Coast Water Board reference this Facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Katie DiSimone at (805) 542-4638 (Katie.disimone@waterboards.ca.gov) or Sheila Soderberg at (805) 549-3592 (Sheila.soderberg@waterboards.ca.gov).