CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

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ORDER NO. R3-2019-0046
NPDES NO. CA0048143

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF SANTA BARBARA EL ESTERO WATER RESOURCE CENTER DISCHARGE TO THE PACIFIC OCEAN

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

Table 1. Discharger Information

Discharger	City of Santa Barbara
Name of Facility	El Estero Water Resource Center (Prior orders issued for this facility used the name El Estero Wastewater Treatment Facility)
Facility Address	520 East Yanonali Street
	Santa Barbara, CA 93103
	Santa Barbara County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Equivalent to Secondary Treated Wastewater and Desalination Discharges including Brine, Filter Backwash, Seawater and Potable Water	34.39194º N	119.6675º W	Pacific Ocean
002	Disinfected Tertiary Recycled Municipal Wastewater	_	_	Reclamation Use

Table 3. Administrative Information

This Order was adopted on:	**December 13, 2019**
This Order shall become effective on:	**February 1, 2020**
This Order shall expire on:	**January 31, 2025**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs 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:	**August 4, 2024**
The U.S. Environmental Protection Agency (U.S. EPA) and the Central Coast Water Board have classified this discharge as follows:	**Major discharge**

I, John M. Robertson, Executive Officer, do hereby certify that this order with all attachments is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region on the date indicated above.

John M. Robertson, Executive Officer

CONTENTS

TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the El Estero Water Resource Center (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. 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. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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 additional 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 IV.B, IV.C, and V.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. Water Reclamation Requirements for Recycled Water Use. The distribution and reuse of recycled water at the Facility is regulated by State Water Resources Control Board General Water Reclamation Requirements (WRRs) for Recycled Water Use, Order WQ 2016-0068-DDW. Production and reuse of recycled water at the Facility is also regulated separately under WRRs Order No. 97-44. New requirements in this Order include specifications related to recycled water production; therefore, WRRs Order No. 97-44 is no longer necessary.

E. Notification of Interested Persons. 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.

F. 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.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R3-2010-0011, as amended, 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. It is further ordered that Water Reclamation Requirements Order No. 97-44 is terminated. This action in no way prevents the

Central Coast Water Board from taking enforcement action for past violations of Order No. R3-2010-0011 or WRRs Order No. 97-44.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater to the Pacific Ocean at a location other than as described by this Order at 34.39194º N latitude, 119.6675º W longitude is prohibited.

B. Discharge of any waste in any manner other than as described by this Order is prohibited.

C. The dry weather average monthly rate of discharge from the Water Resource Center shall not exceed 11 MGD. The average monthly rate of combined discharge of brine and other supplemental desalination flows from the desalination facility shall not exceed 12.5 MGD when the desalination facility is operational. Supplemental desalination flows shall be limited to startup maintenance flows, off-spec treated seawater, treated filter backwash water including dewatering of backwash and lime clarifier solids, and potable water. These flows may be periodically discharged during initial facility start-up, during or after facility maintenance, or at other times when the desalination facility is operating or not otherwise delivering potable water. The term desalination brine throughout the Order includes these supplemental desalination flows. Temporarily discharging such supplemental desalination flows to the Pacific Ocean does not constitute a “bypass” as defined in Attachment D, Standard Provision I.G.1.a of this Order. All limits and requirements, including monitoring, specified in this Order remain applicable during these temporary discharges.

D. Discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste to the ocean is prohibited.

E. Discharge of waste to designated Areas of Special Biological Significance, except as provided in chapter III.E of the California Ocean Plan (Ocean Plan), is prohibited.

F. Pipeline discharge of sludge to the ocean is prohibited by federal law. The discharge of municipal or industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited by the Ocean Plan. The discharge of sludge digester supernatant directly to the ocean or to a waste stream that discharges to the ocean without further treatment is prohibited.

G. 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.2 (Bypass), is prohibited.

H. Discharge of materials and substances in the wastewater that result 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; or
5. Result in aesthetically undesirable discoloration of the ocean surface.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

Effluent Limitations – Discharge Point No. 001

Final Effluent Limitations – Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, prior to any secondary treated wastewater commingling with desalination brine, with compliance measured at Monitoring Location EFF-001A or M-001, as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations for Major Constituents and Properties of Wastewater

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

[1] Per 40 C.F.R. 133.102, this Order substitutes five-day carbonaceous biochemical oxygen demand ($CBOD_5$).
[2] Mass-based effluent limitations were using the following formula:
Lbs/day = pollutant concentration (mg/L) * permitted flow (11 MGD) * conversion faction (8.34)

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

Table 5. Effluent Limitations for Major Constituents Based on Table 4 of the Ocean Plan

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	25	40	---	---	75
Settleable Solids	ml/L	1.0	1.5	---	---	3.0
Turbidity	NTU	75	100	---	---	225
pH	standard units	---	---	---	6.0	9.0

c. **Toxic Pollutants**

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

Table 6. Effluent Limitations for the Protection of Marine Aquatic Life – When Not Discharging Desalination Brine

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Cadmium, Total Recoverable	µg/L	120	480	1,200

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Chromium (VI), Total Recoverable[4]	µg/L	240	970	2,400
Mercury, Total Recoverable	µg/L	4.8	19	48
Silver, Total Recoverable	µg/L	67	320	830
Cyanide, Total[5]	µg/L	120	480	1,200
Total Chlorine Residual[6]	µg/L	240	970	7,300
Chronic Toxicity	TUc	---	120	---
Endosulfan	µg/L	1.1	2.2	3.3
Endrin	µg/L	0.24	0.48	0.73
HCH	µg/L	0.48	0.97	1.5
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

[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 to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[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 Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

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

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

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

Table 7. Effluent Limitations for the Protection of Human Health – When Not Discharging Desalination Brine

Parameter	Units	30-Day Average
Non-Carcinogens		
Acrolein	µg/L	27,000
Bis(2-chloroethoxy) Methane	µg/L	530
Bis(2-chloroisopropyl) Ether	µg/L	150,000
Chlorobenzene	µg/L	69,000
Chromium (III), Total Recoverable	µg/L	23,000,000
Di-n-butyl Phthalate	µg/L	420,000
Dichlorobenzenes[1]	µg/L	620,000

Parameter	Units	30-Day Average
Diethyl Phthalate	µg/L	4,000,000
Dimethyl Phthalate	µg/L	99,000,000
4,6-dinitro-2-methylphenol	µg/L	27,000
2,4-dinitrophenol	µg/L	480
Ethylbenzene	µg/L	500,000
Fluoranthene	µg/L	1,800
Hexachlorocyclopentadiene	µg/L	7,000
Nitrobenzene	µg/L	590
Thallium, Total Recoverable	µg/L	240
Toluene	µg/L	10,000,000
1,1,1-trichloroethane	µg/L	65,000,000
Carcinogens		
Acrylonitrile	µg/L	12
Aldrin	µg/L	0.0027
Benzene	µg/L	710
Benzidine	µg/L	0.0083
Beryllium, Total Recoverable	µg/L	4
Bis(2-chloroethyl) Ether	µg/L	5.4
Bis(2-ethlyhexyl) Phthalate	µg/L	420
Carbon Tetrachloride	µg/L	110
Chlordane[2]	µg/L	0.0028
Chlorodibromomethane	µg/L	1,000
DDT[3]	µg/L	0.021
1,4-dichlorobenzene	µg/L	2,200
3,3'-dichlorobenzidine	µg/L	0.98
1,2-dichloroethane	µg/L	3,400
1,1-dichloroethylene	µg/L	110
Dichlorobromomethane	µg/L	750
Dichloromethane (Methylene Chloride)	µg/L	54,000
1,3-dichloropropene	µg/L	1,100
Dieldrin	µg/L	0.0048
2,4-dinitrotoluene	µg/L	310
1,2-diphenylhydrazine	µg/L	19
Halomethanes[4]	µg/L	16,000
Heptachlor	µg/L	0.006
Heptachlor Epoxide	µg/L	0.0024
Hexachlorobenzene	µg/L	0.025
Hexachlorobutadiene	µg/L	1,700
Hexachloroethane	µg/L	300
Isophorone	µg/L	88,000
N-nitrosodi-N-propylamine	µg/L	46
N-nitrosodiphenylamine	µg/L	300
PAHs[5]	µg/L	1.1
PCBs[6]	µg/L	0.0023

Parameter	Units	30-Day Average
TCDD Equivalents[7]	µg/L	0.00000047
1,1,2,2-tetrachloroethane	µg/L	280
Tetrachloroethylene (Tetrachloroethene)	µg/L	240
Toxaphene	µg/L	0.025
Trichloroethylene	µg/L	3,300
1,1,2-trichloroethane	µg/L	1,100
2,4,6-trichlorophenol	µg/L	35
Vinyl Chloride	µg/L	4,400

[1] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.
[2] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4'DDE; 2,4'DDE; 4,4'DDD; and 2,4'DDD.
[4] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).
[5] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.
[6] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

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

ii. The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point No. 001 when discharging commingled secondary treated wastewater and desalination brine, with compliance measured at Monitoring Location EFF-001B, as described in the MRP, Attachment E.

Table 8. Effluent Limitations for the Protection of Marine Aquatic Life – When Discharging Commingled Treated Wastewater and Desalination Brine

Parameter	Units	Effluent Limitation		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Arsenic, Total Recoverable	µg/L	228	1,308	3,468

Parameter	Units	Effluent Limitation		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Cadmium, Total Recoverable	µg/L	45	180	450
Chromium (VI), Total Recoverable[4]	µg/L	90	360	900
Lead, Total Recoverable	µg/L	90	360	900
Mercury, Total Recoverable	µg/L	1.8	7.2	18
Nickel, Total Recoverable	µg/L	225	900	2,250
Selenium, Total Recoverable	µg/L	675	2,700	6,750
Silver, Total Recoverable	µg/L	24	120	310
Zinc, Total Recoverable	µg/L	550	3,200	8,600
Cyanide, Total[5]	µg/L	45	180	450
Total Chlorine Residual[6]	µg/L	90	360	2,700
Acute Toxicity	µg/L	---	1.62	---
Chronic Toxicity	µg/L	---	45	---
Non-Chlorinated Phenolics	µg/L	1,350	5,400	13,500
Chlorinated Phenolics	µg/L	45	180	450
Endosulfan	µg/L	0.41	0.81	1.2
Endrin	µg/L	0.09	0.18	0.27
HCH	µg/L	0.18	0.36	0.54
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

[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 to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[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 Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

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

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

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

Table 9. Effluent Limitations for the Protection of Human Health – When Discharging Commingled Treated Wastewater and Desalination Brine

Parameter	Units	30-Day Average
Non-Carcinogens		
Acrolein	µg/L	9,900
Antimony, Total Recoverable	µg/L	54
Bis(2-chloroethoxy) Methane	µg/L	200
Bis(2-chloroisopropyl) Ether	µg/L	54,000
Chlorobenzene	µg/L	26,000
Chromium (III), Total Recoverable	µg/L	8,600,000
Di-n-butyl Phthalate	µg/L	160,000
Dichlorobenzenes[1]	µg/L	230,000
Diethyl Phthalate	µg/L	1,500,000
Dimethyl Phthalate	µg/L	37,000,000
4,6-dinitro-2-methylphenol	µg/L	9,900
2,4-dinitrophenol	µg/L	180
Ethylbenzene	µg/L	180,000
Fluoranthene	µg/L	680
Hexachlorocyclopentadiene	µg/L	2,600
Nitrobenzene	µg/L	220
Thallium, Total Recoverable	µg/L	90
Toluene	µg/L	3,800,000
Tributyltin	µg/L	0.06
1,1,1-trichloroethane	µg/L	24,000,000
Carcinogens		
Acrylonitrile	µg/L	4.5
Aldrin	µg/L	0.001
Benzene	µg/L	270
Benzidine	µg/L	0.003
Beryllium, Total Recoverable	µg/L	1.5
Bis(2-chloroethyl) Ether	µg/L	2
Bis(2-ethlyhexyl) Phthalate	µg/L	160
Carbon Tetrachloride	µg/L	41
Chlordane[2]	µg/L	0.001
Chlorodibromomethane	µg/L	390
Chloroform	µg/L	5,850
DDT[3]	µg/L	0.0076
1,4-dichlorobenzene	µg/L	810
3,3'-dichlorobenzidine	µg/L	0.36
1,2-dichloroethane	µg/L	1,300
1,1-dichloroethylene	µg/L	41
Dichlorobromomethane	µg/L	280
Dichloromethane (Methylene Chloride)	µg/L	20,000
1,3-dichloropropene	µg/L	400
Dieldrin	µg/L	0.0018
2,4-dinitrotoluene	µg/L	120
1,2-diphenylhydrazine	µg/L	7.2

Parameter	Units	30-Day Average
Halomethanes[4]	µg/L	5,900
Heptachlor	µg/L	0.0023
Heptachlor Epoxide	µg/L	0.0009
Hexachlorobenzene	µg/L	0.009
Hexachlorobutadiene	µg/L	630
Hexachloroethane	µg/L	110
Isophorone	µg/L	33,000
N-nitrosodimethylamine	µg/L	328.5
N-nitrosodi-N-propylamine	µg/L	17
N-nitrosodiphenylamine	µg/L	110
PAHs[5]	µg/L	0.40
PCBs[6]	µg/L	0.00086
TCDD Equivalents[7]	µg/L	0.00000018
1,1,2,2-tetrachloroethane	µg/L	100
Tetrachloroethylene (Tetrachloroethene)	µg/L	90
Toxaphene	µg/L	0.0095
Trichloroethylene	µg/L	1,200
1,1,2-trichloroethane	µg/L	420
2,4,6-trichlorophenol	µg/L	13
Vinyl Chloride	µg/L	1,600

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

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

[3] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4'DDE; 2,4'DDE; 4,4'DDD; and 2,4'DDD.

[4] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride). Based on data for 2010, 2011, and 2012. Missing data for 2013, 2014, and 2015.

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

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

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

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

d. **Percent Removal.** The average monthly percent removal of $CBOD_5$ and TSS shall not be less than 85 percent.

e. **Bacteria.**

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

(a) 70 most probable number (MPN) per 100 mL, as a monthly median; and

(b) 230 MPN/100 mL, in not more than 10 percent of samples in a calendar month

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

(a) 200 MPN/100 mL, as a 30-day geometric mean; and

(b) 400 MPN/100 mL, as a single sample maximum.

iii. **Enterococcus.** Enterococcus shall not exceed:

(a) 30 MPN/100 mL, as a 6-week rolling geometric mean; and

(b) 110 MPN/100 mL, not to be exceeded in more than 10 percent of samples collected in a calendar month, calculated in a static manner.

f. **Salinity.** The daily maximum effluent salinity (ppt) shall not exceed an effluent concentration equal to 90+ natural background salinity. Natural background salinity is the average salinity (33.5 ppt) at Monitoring Location REF-001.

Land Discharge Specifications – Not Applicable

Recycling Specifications - Discharge Point 002

Water reclamation requirements have been added to this permit to allow the Discharger to produce disinfected tertiary recycled water at the El Estero Water Resource Center as per State Water Resources Control Board's Division of Drinking Water approval.

1. Reclamation and use of tertiary treated wastewater shall adhere to applicable requirements of CWC sections 13500-13577 (Water Reclamation); California Code of Regulations title 17, sections 7583-7586; title 17 sections 7601-7605; and title 22, sections 60301-60355 (Uniform Statewide Recycling Criteria).

2. Recycled water production shall comply with a title 22 engineering report approved by the Division of Drinking Water that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and amendments).

3. Recycled water shall be disinfected tertiary recycled water, as defined by title 22, section 60301.230.

4. Recycled water shall be adequately oxidized, filtered, and disinfected, as defined in title 22.

5. The Discharger shall comply with the following specifications at Discharge Point No. 002 for reclamation of tertiary treated secondary wastewater, with compliance measured at Monitoring Location RCY-001, as described in the attached MRP.

Disinfected Tertiary Recycled Water Limitations

Parameter	Units	Effluent Limitations	
		Mean[1]	Maximum Daily
TSS	mg/L	10	25
Settleable Solids	mL/L	---	0.1
TDS	mg/L	---	1,500
Cadmium	mg/L	---	0.01
Lead	mg/L	---	5.0

[1] Compliance shall be determined from the results of the five most recent samples.

6. Filtered recycled water shall be passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane.

7. Filtered recycled water at INT-001 shall not exceed any of the following turbidity limits:
   a. 0.2 NTU more than 5 percent of the time within a 24-hour period; and
   b. 0.5 NTU at any time.

8. The concentration of total coliform bacteria measured at RCY-001 (after disinfection) shall not exceed the following limits:
   a. A median MPN of 2.2 per 100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed,
   b. An MPN of 23 per 100 mL in more than one sample in any 30-day period, and
   c. An MPN of 240 total coliform bacteria per 100 mL in any one sample.

9. Freeboard shall always exceed two feet in all recycled water storage ponds owned or operated by the Discharger.

10. The Discharger shall discontinue delivery of recycled water to distributors and users during any period in which it has reason to believe that the limits established in this Order are not being met. The delivery of recycled water shall not be resumed until all conditions that caused the limits to be violated have been corrected.

11. Recycled water disinfected with chlorine shall have a CT value (chlorine concentration time modal contact time) of not less than 450 mg-min/L at all times with a modal contact time of at least 90 minutes.

12. In lieu of 11 above, recycled water may be disinfected by a process that when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2 or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

13. Personnel involved in producing, transporting, or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water.

14. Delivery of recycled water shall be discontinued when these recycling specifications cannot be met.

15. All recycled water reservoirs and other areas with public access shall be posted with signs in English and an international symbol to warn the public that recycled wastewater is being stored or used.

16. Recycled water systems at the Facility shall be properly labeled and regularly inspected to ensure proper operation, absence of leaks, and absence of illegal connections.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

The following receiving water limitations are based on water quality objectives (WQOs) contained in the Ocean Plan and are a required part of this Order. Compliance with these limitations shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed, except where other stations are defined.

1. Bacterial Characteristics

a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Central Coast Water Board (i.e., waters designated REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

i. Fecal Coliform

(a) Thirty-day geometric mean of fecal coliform density not to exceed 200 per 100 milliliters (mL) calculated based on the five most recent samples from each site.

(b) Single sample maximum not to exceed 400 per 100 mL.

ii. Enterococci

(a) Six-week rolling geometric mean not to exceed 30 colony-forming units (CFU) per 100 mL, calculated weekly.

(b) Statistical threshold value of 110 CFU per 100 mL not to be exceeded by more than 10 percent of samples collected in a calendar month, calculated in a static manner.

b. The “Initial Dilution Zone” of wastewater outfalls shall be excluded from designation as kelp beds for the purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

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

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.

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.

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 6.0 to 9.0 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 3 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.

g. Numerical WQOs established in Table 3 of the Ocean Plan apply to all discharges within the jurisdiction of the Ocean Plan. Unless otherwise specified, all metal concentrations are expressed as total recoverable concentrations.

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.

7. Salinity

Discharges shall not exceed a daily maximum of 2.0 ppt above natural background salinity measured no further than 100 meters (328 ft.) horizontally from the discharge point. There is no vertical limit to this zone. Compliance with the salinity receiving water limitation will be based on the effluent limitation for salinity at Discharge Point No. 001.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all standard provisions included in Attachment D.

2. **Central Coast Water Board Standard Provisions.** The Discharger shall comply with all Central Coast Water Board specific standard provisions also included in Attachment D of this Order.

B. Monitoring and Reporting Program (MRP) Requirements

Pursuant to Water Code sections 13267 and 13383, the Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order and all notification and general reporting requirements throughout this Order and Attachment D. Where notification or general reporting requirements conflict with those stated in the MRP (e.g., annual report due date), the Discharger shall comply with the MRP requirements. All monitoring shall be conducted according to 40 C.F.R. part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

The Discharger is required to provide technical or monitoring reports because it is the owner and operator responsible for the waste discharge and compliance with this Order. The Central Coast Water Board needs this information to determine the Discharger's compliance with this Order, assess the need for further investigation or enforcement action, and to protect public health and safety and the environment.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened and modified in accordance with NPDES regulations at 40 C.F.R. parts 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 water quality objective.

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 an Ocean Plan Table 3 water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Toxicity Reduction Requirements**

The Discharger shall notify the Central Coast Water Board and U.S. EPA in writing within 14 days of exceedance of a chronic toxicity trigger of 134 TUc. This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

If the discharge consistently exceeds the chronic toxicity trigger of 134 TUc, the Discharger shall conduct a Toxicity Reduction Evaluation in accordance with the Discharger's TRE Workplan.

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

The Discharger shall develop and maintain a TRE Workplan that 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 proposed to investigate and identify the causes and 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 acute or 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 detects effluent toxicity greater than a limitation in this Order, the Discharger shall resample immediately, if the discharge is continuing, 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 if it is appropriate to initiate enforcement action, 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* (U.S. EPA Document Nos. EPA 600/3-88/034, 600/3-88/035, and 600/3-88/036, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

Table 10. 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. **Initial Investigation TRE Workplan for Whole Effluent Toxicity**

Within 180 days of the permit effective date, the Discharger shall prepare and submit a copy of their Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan to the Central Coast Water Board for review. This plan shall include steps the Discharger intends to implement if toxicity is measured above a toxicity trigger and should include, at minimum:

i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

ii. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

iii. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

This workplan is subject to approval and modification by the Central Coast Water Board.

c. **Accelerated Toxicity Testing and TRE/TIE Process for Whole Effluent Toxicity**

i. If the toxicity trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding the toxicity trigger. If the additional toxicity test does not exceed the toxicity effluent trigger, then the Discharger may return to their regular testing frequency.

ii. If the toxicity trigger is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12-week period. This testing shall begin within 14 days of receipt of test results exceeding the toxicity trigger. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to their regular testing frequency.

iii. If one of the additional toxicity tests exceeds the toxicity trigger, then the Discharger shall notify the Executive Officer and Director. If the Executive Officer and Director determine that the discharge consistently exceeds the toxicity trigger, then the Discharger shall initiate a TRE using as guidance the U.S. EPA manuals: *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833/B-99/002, 1999) or *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPN600/2-88/070, 1989). In conjunction, the Discharger shall develop and implement a detailed TRE Workplan which shall include: further actions undertaken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity, and a schedule for these actions. This Detailed TRE Workplan and schedule are subject to approval and modification by the Central Coast Water Board and U.S. EPA.

iv. As part of a TRE, the Discharger may initiate a Toxicity Identification Evaluation (TIE) using the same species and test method, and U.S. EPA TIE guidance manuals-to identify the causes of toxicity. The U.S. EPA TIE guidance manuals are: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPN600/6-91/005F, 1992; only chronic toxicity); *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPN600/6-91/003, 1991; only acute toxicity); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPN600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPN600/R-92/081 , 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPN600/R-96-054, 1996).

d. **Desalination Monitoring and Reporting Plan**

Within 180 days of the effective date of this Order, the Discharger must submit a Monitoring and Reporting Plan to the Central Coast Water Board for approval. The Monitoring and Reporting Plan shall address Discharge Point No. 001 and shall include monitoring of effluent and receiving water characteristics and impacts to all

forms of marine life. The monitoring and reporting plan shall include the effluent and receiving water monitoring requirements contained in Attachment E to this Order and shall include additional monitoring, at a minimum, for benthic community health, aquatic life toxicity, hypoxia, and receiving water characteristics consistent with Appendix III of the Ocean Plan. The Monitoring and Reporting Plan shall also address compliance with the receiving water limitation in section III.M.3 of the Ocean Plan as implemented as an effluent limitation in section IV.A.1 and a receiving water limitation in section V.A.7 of this Order. Receiving water monitoring for salinity shall be conducted at times when the monitoring locations are most likely affected by the discharge. Monitoring to demonstrate compliance with the salinity receiving water limitation shall include a salinity reference monitoring station as described in the following paragraph.

e. **Establishment of Salinity Reference Monitoring Station.**

The salinity amendment to the Ocean Plan allows for an alternative determination of natural background salinity based on the average of 20 years of historical data at a representative reference site. This Order utilizes long term salinity monitoring data that has been compiled since 1949 by the California Cooperative Oceanic Fisheries Investigation (CalCOFI). A peer-reviewed paper (Schneider, et al., 2005) provides a comprehensive analysis to show that there is minimal variability in salinity over time and throughout the entire region of the Southern California Bight. Across 100,000 square kilometers of the Southern California Bight, the surface salinity varies by no more than 0.3 ppt, from 33.3 ppt at the northern end of the Bight to 33.6 at the southern end. This allows the conclusion that all data collected within the Southern California Bight can be considered in proximity of and representative of natural background salinity at the El Estero Water Resource Center discharge location (Discharge Point-001). CalCOFI Station 40.6 in the Santa Barbara Channel at 34.23 deg. N, 119.41 deg. W shall serve as the Salinity Reference Monitoring Station for the determination of natural background salinity. The long-term average surface salinity at the El Estero Water Resource Center discharge location for this Order is fixed at 33.5 ppt.

f. **Determination of Compliance with Receiving Water Salinity Limits.**

The discharge salinity measured at monitoring location RSW-1 (located within100 m from the El Estero Outfall Diffuser) shall be compared to the mean salinity (33.5 ppt) calculated from 20-year averages of salinity data at CalCOFI Station 40.6 to determine compliance with the receiving water limitation. In order to verify the receiving water salinity limit is met, discharge salinity must be measured at monitoring location RSW-1 on a sampling frequency of once per month for the first year of operation. Receiving water monitoring for salinity shall be conducted at times when the monitoring locations are most likely affected by the discharge, as reasonable. Discharge salinity measurements at RSW-1 must be vertical salinity profiles from near-surface to near-bottom using a conductivity/temperature/depth (CTD) sensor (e.g. Seabird SBE 19 or 25 or equivalent). Salinity sampling events must be correlated to brine and effluent flow rates. If monthly discharge salinity samples demonstrate compliance with the receiving water limitation, subsequent salinity sampling events may be reduced to once every year.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program**

The Discharger shall develop and conduct a pollutant minimization program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML;

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

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Central Coast Water Board:

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

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

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

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

v. An annual status report that shall be sent to the Central Coast Water Board including:

(a) All PMP monitoring results for the previous year;

(b) A list of potential sources of the reportable pollutants;

(c) A summary of all actions undertaken pursuant to the control strategy; and

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

4. Construction, Operation and Maintenance Specifications

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

5. Special Provisions for Publicly Owned Treatment Works (POTWs)

a. **Biosolids Management.**

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

40 C.F.R. Part 503 sets forth U.S. EPA's final rule for the use and disposal of

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

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

b. **Pretreatment.**

The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 C.F.R. 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the U.S. EPA, or other appropriate parties, as provided in the CWA, as amended (33 USA 1351 et seq.). The Discharger shall implement and enforce its approved publicly owned treatment works (POTW) pretreatment program. Implementation of the Discharger's approved POTW pretreatment program is hereby made an enforceable condition of this permit. U.S. EPA may initiate enforcement action against an industrial user for non-compliance with applicable standards and requirements as provided in the CWA.

The Discharger shall enforce the requirements promulgated under sections 307 (b), (c), & (d) and 402 (b) of the CWA. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge. The Discharger shall perform the pretreatment functions as required in 40 C.F.R. Part 403, including, but not limited to:

i. Implement necessary legal authorities as provided in 40 C.F.R. 403.8 (f)(1);

ii. Enforce the pretreatment requirements under 40 C.F.R. 403.5 and 403.6;

iii. Implement the programmatic functions as provided in 40 C.F.R. 403.8 (f)(2); and,

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

The Discharger shall submit annually a report to the U.S. EPA - Region 9, the Central Coast Water Board, and the State Water Board describing the Discharger's pretreatment activities over the previous twelve months. In the event that the Discharger is not in compliance with conditions or requirements of this permit affected by the pretreatment program, it shall also include reasons for non-compliance and a statement how and when it shall comply. This annual report is due by March 31 of each year and shall contain, but not be limited to, the contents described in the "Pretreatment Reporting Requirements" contained in the Monitoring and Reporting Program No. R3-2019-0046.

6. Other Special Provisions

a. **Discharges of Storm Water.** For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, if applicable, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Resources Control Board’s Water Quality Order 2014-0057-DWQ, NPDES

General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

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

7. Salt and Nutrient Management Plan

a. The Discharger shall submit documentation and summary of participation in a regional salt/nutrient management plan implemented under the provisions of the State Water Board's Recycled Water Policy.

8. Compliance Schedules – Not Applicable

9. Climate Change Adaptation

No later than May 10, 2022, the Discharger must submit a sea level rise adaption plan to the Central Coast Water Board for Executive Officer review. This plan must provide a clear, long-term plan for addressing flooding and other coastal hazards, as well as coastal resource impacts, to public and private infrastructure along the City's coastline, including the El Estero Water Resource Center and associated wastewater infrastructure. The plan must analyze options to address regional impacts due to climate change (e.g., sea level rise, floods, erosion, and groundwater impacts) on the City's wastewater facilities and infrastructure. A full suite of adaptation options must be considered, including protection, accommodation, and retreat strategies. Options that achieve long-term safety, minimize resource impacts, and align with other agency mandates shall be prioritized. The sea level rise adaption plan must identify next steps for ensuring that the El Estero Water Resource Center is made resilient to projected sea level rise.

The sea level rise adaption plan must include recommendations for a monitoring plan that establishes the framework and parameters for regularly monitoring flood and other coastal hazards along the City's coastline and responses to those hazards. The sea level rise adaption plan must include a vulnerability analysis that includes the El Estero Water Resource Center. The plan must analyze, among other parameters, at what levels of sea-level rise the El Estero Water Resource Center is likely to not function without substantial investment in new infrastructure and protective measures, at which point the City might want to pursue options to relocate the existing El Estero Water Resource Center.

The sea level rise adaption plan must analyze a range of sea level rise scenarios applicable to the anticipated life of the facility and utilize the latest *State of California Sea-Level Rise Guidance* (OPC, 2018) and the California Coastal Commission's *Sea Level Rise Policy Guidance* (CCC, 2018). These scenarios are the "High Emissions" (RCP 8.5) and "Medium-High Risk Aversion" (0.5% probability) projections for Santa Barbara contained in the 2018 *State of California Sea-Level Rise Guidance*. In addition,

recent scientific studies indicate that there is a possibility that sea levels could rise faster than these projections due to the potential loss of the West Antarctic ice sheet. While the probability of this extreme scenario (called the H++ scenario) is not known at this time, OPC and CCC in their guidance documents recommend considering the H++ scenario in the planning of very critical infrastructure. As such, the City's sea level rise adaptation plan must include an assess of the H++ scenario, which considers the possibility that 6.6 feet of sea-level rise may occur by 2080.

The adaptation plan must describe the process and schedule the City will follow to prepare a subsequent facility-specific sea-level rise analysis. The process and schedule description for the facility-specific analysis must address each component at the El Estero Water Resource Center (e.g., wastewater treatment plant, collection system, recycling facility, desalination facility, etc.); major upgrade events; the expected lifespan and repair/maintenance and replacement costs of each component; and the expected remaining years of use for each component and for the overall El Estero Water Resource Center. Conclusions must be included regarding the expected point in time when investments in infrastructure (including continued flood protection measures) at the current El Estero Water Resource Center location outweigh investing in a relocated facility at a location that is safe from flooding and other coastal hazards. The facility-specific analysis shall include a facility-specific sea-level rise monitoring plan that establishes the framework and parameters for (1) identifying how sea-level rise hazards are affecting the operations of the El Estero Water Resource Center, (2) identifying changes necessary to allow continued appropriate and required function of the El Estero Water Resource Center, and (3) identifying flood/hazard 'triggers' to establish when El Estero Water Resource Center changes (including potential facility relocation) need to be pursued in response to specific flood/hazard events or flood management activities. The facility-specific analysis must, at minimum, include a detailed cost-benefit analysis comparing the costs and benefits of maintaining the El Estero Water Resource Center at the present location versus relocating the El Estero Water Resource Center to an area safe from flooding and other coastal hazards over time. The analysis must include expected costs of purchasing land for a relocated El Estero Water Resource Center, expected costs to decommission the existing El Estero Water Resource Center and to restore the site to its natural state; and a timeline of potential major relocation events, including expected timeframes for land acquisition, planning, permitting, design, construction and eventual operation of a relocated plant. In addition to the sea level rise adaption plan, the City must submit an updated hazard mitigation plan to provide a clear, long-term plan for addressing flooding and other coastal hazards, as well as coastal resource impacts at the El Estero Water Resource Center over the long term. With its report of waste discharge submittal for permit reissuance, the City must submit a facility-specific analysis update report. This report must describe the City's implementation of the facility-specific analysis process and schedule included in the sea level rise adaption plan and must demonstrate the City's adherence to that process and schedule.

At the request of the Discharger, the Central Coast Water Board Executive Officer may provide an extension to the due dates for submittal of the sea level rise adaption plan, the updated hazard mitigation plan, and the facility-specific analysis update report, provided the Discharger demonstrates significant progress has been made on the plans and reports and there is good cause for the extension.

VII. COMPLIANCE DETERMINATION

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

A. General.

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the 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 sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

ATTACHMENT A – DEFINITIONS

Acute Toxicity

a. Acute Toxicity (TUa)
Expressed in Toxic Units Acute (TUa)

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

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 Resources Control Board (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.

Brine
Brine is the byproduct of desalinated water having a salinity concentration greater than a desalination facility's intake source water.

Brine Mixing Zone
Brine mixing zone is the area where salinity may exceed 2.0 parts per thousand above natural background salinity, or the concentration of salinity approved as part of an alternative receiving water

limitation. The standard brine mixing zone shall not exceed 100 meters (328 feet) laterally from the points of discharge and throughout the water column. The brine mixing zone is an allocated impact zone where there may be toxic effects on marine life due to elevated salinity.

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

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

a. Chronic Toxicity (TUc)
   Expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL)

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

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

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

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

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

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

Desalination Facility
An industrial facility that processes water to remove salts and other components from the source water to produce water that is less saline than the source water

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 Central Coast Water 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 Background Salinity
Natural background salinity is the salinity at a location that results from naturally occurring processes and is without apparent human influence. For purposes of determining natural background salinity, the regional water board may approve the use of:

(1) the mean monthly natural background salinity. Mean monthly natural background salinity shall be determined by averaging 20 years of historical salinity data in the proximity of the proposed discharge location and at the depth of the proposed discharge, when feasible. For historical data not recorded in parts per thousand, the regional water boards may accept converted data at their

discretion. When historical data are not available, natural background salinity shall be determined by measuring salinity* at depth of proposed discharge for three years, on a weekly basis prior to a desalination facility* discharging brine,* and the mean monthly natural salinity* shall be used to determine natural background salinity; or

(2) the actual salinity at a reference location, or reference locations, that is representative of natural background salinity at the discharge location. The reference locations shall be without apparent human influence, including wastewater outfalls and brine discharges.

Either method to establish natural background salinity may be used for the purpose of determining compliance with the receiving water limitation or an effluent limitation for salinity. If a reference location(s) is used for compliance monitoring, the permit should specify that historical data shall be used if reference location data becomes unavailable. An owner or operator shall submit to the regional water board all necessary information to establish natural background salinity.

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 3 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.

Salinity
Salinity is a measure of the dissolved salts in a volume of water. For the purposes of this Plan, salinity shall be measured using a standard method approved by the regional water board (e.g. Standard Method 2520 B, EPA Method 120.1, EPA Method 160.1) and reported in parts per thousand (ppt). For historical salinity data not recorded in parts per thousand, the regional water boards may accept converted data at their discretion.

Seawater
Seawater is salt water that is in or from the ocean. For the purposes of chapter III.M of the Ocean Plan, seawater includes tidally influenced waters in coastal estuaries and coastal lagoons and underground salt water beneath the seafloor, beach, or other contiguous land with hydrologic connectivity to the ocean.

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 Resolutions 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
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Toxicity Reduction Evaluation (TRE)
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

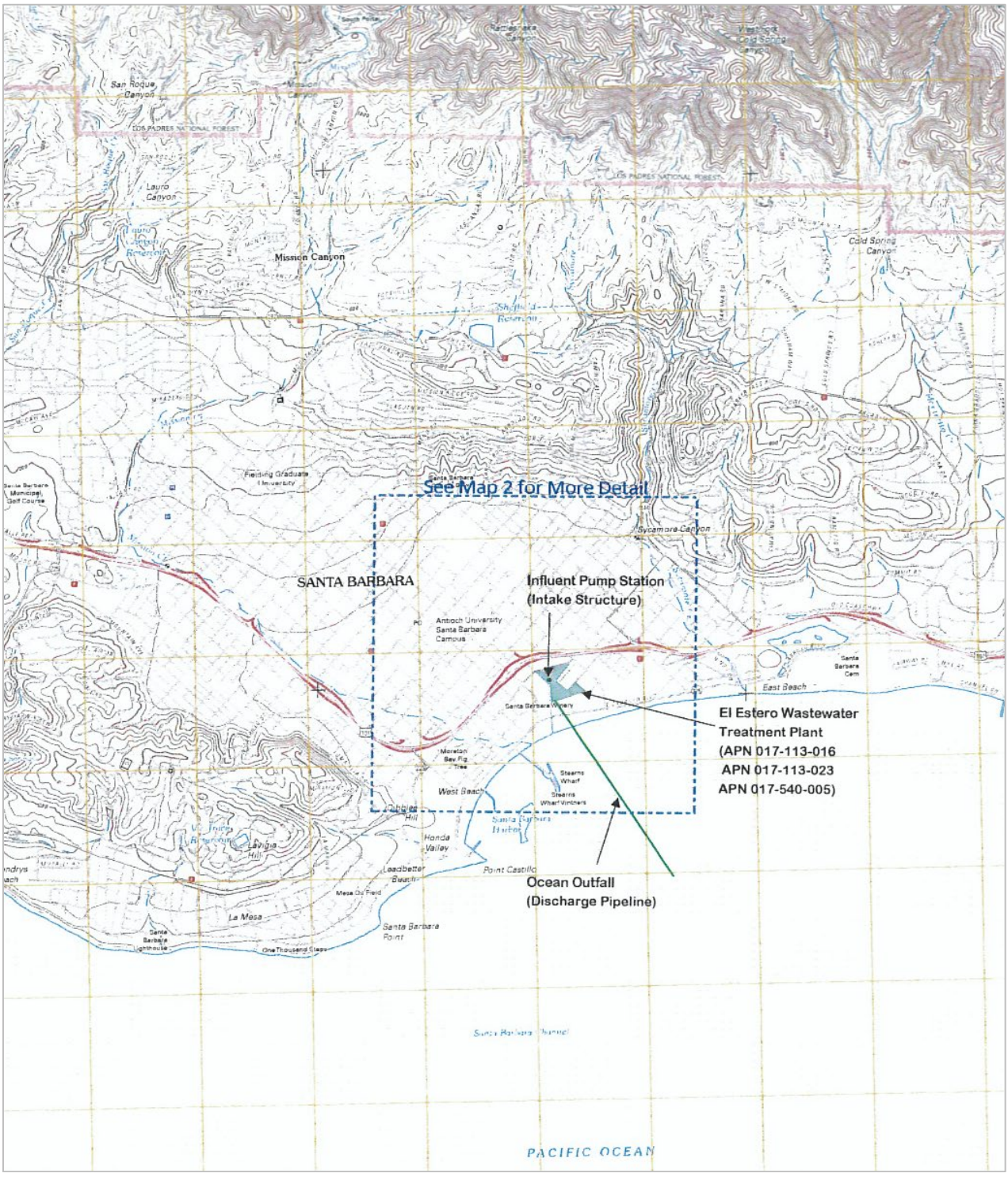

Figure B-1. Facility and Ocean Outfall Location

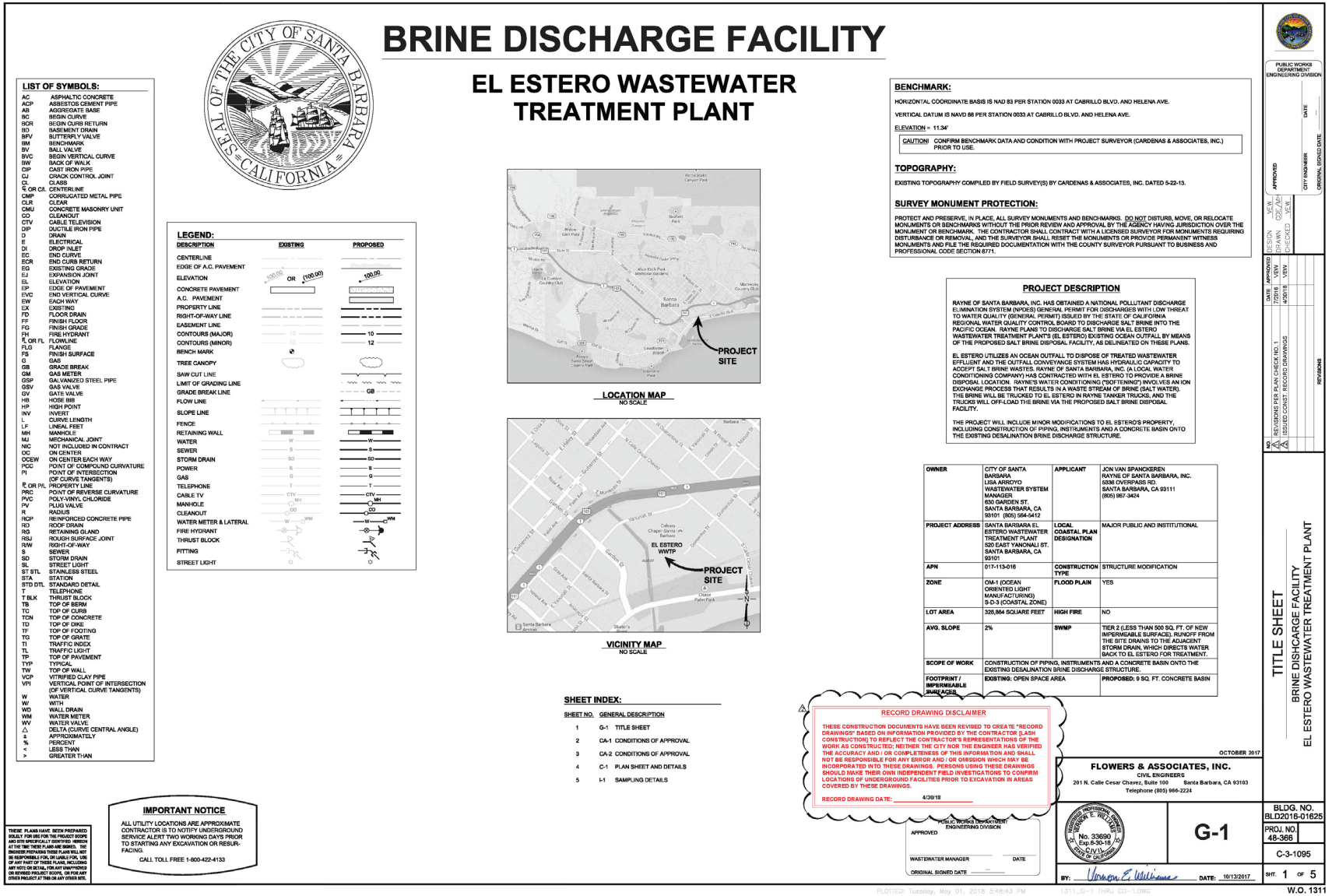

Figure B-2. New Brine Discharge Facility

ATTACHMENT C – FLOW SCHEMATIC

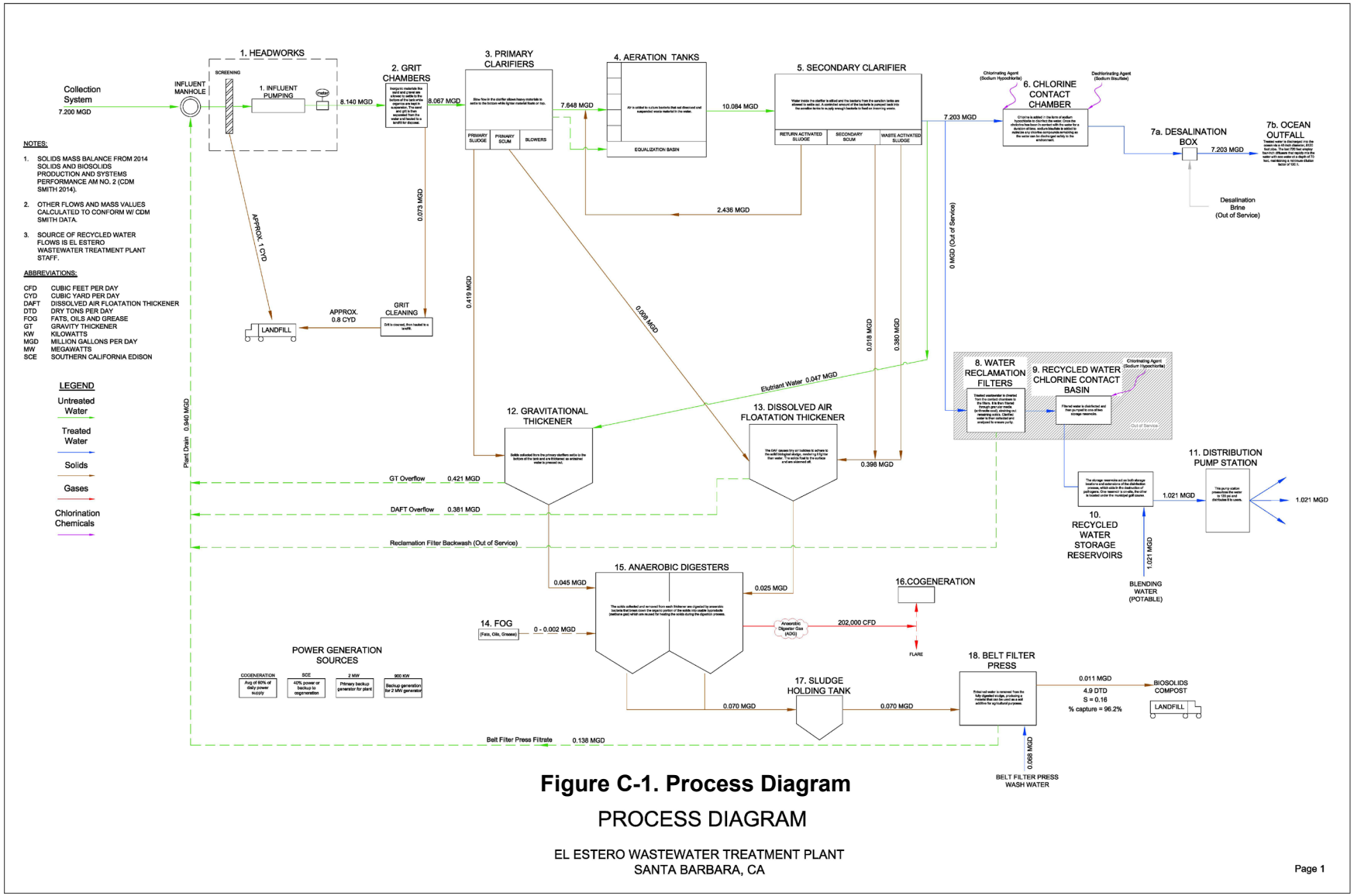

Figure C-1. Process Diagram

PROCESS DIAGRAM

EL ESTERO WASTEWATER TREATMENT PLANT
SANTA BARBARA, CA

Page 1

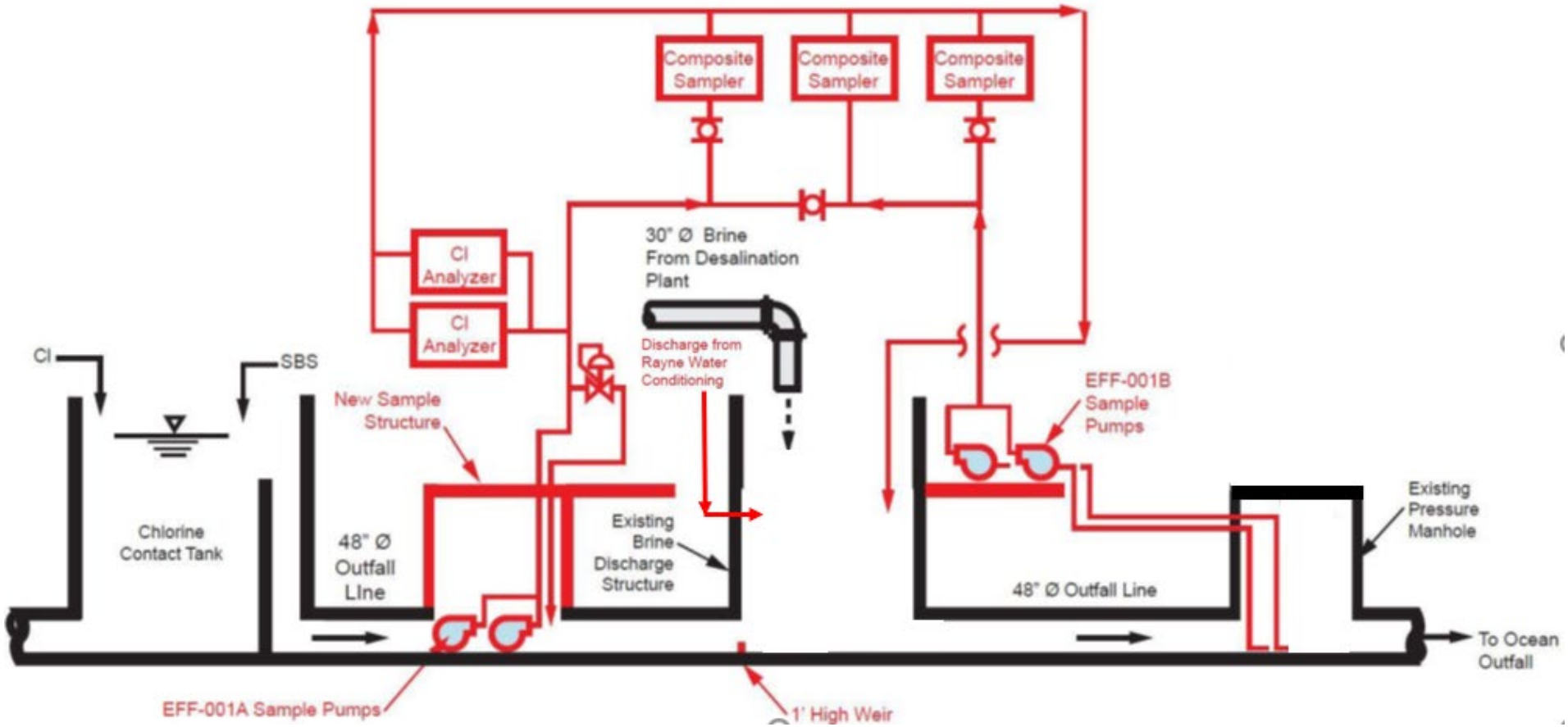

Figure C-2. Reconstructed Effluent Sampling Location

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
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 (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 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 (33 U.S.C. § 1318(a)(4)(b)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); 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. (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

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 judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
   c. The Discharger submitted notice to the Central Coast Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Central Coast Water Board. As of December 21, 2020 all notices be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Central Coast Water Board. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

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

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

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

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

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

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

   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 must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3),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, 13383.)

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, V.B.5, and V.B.6 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).)

6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

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 the results of monitoring, sludge use, or disposal practices. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (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. chapter 1, 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 which 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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.

   For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

   As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Central Coast Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours:

   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 on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

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 could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to

effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Central Coast 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (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).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. 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 13268, 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 (JANUARY 2013)

A. Central Coast General Permit Conditions – 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 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 an "indirect discharger" that:
   a. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or
   b. Flow through the system to the receiving water untreated; and
   c. Cause or "significantly contribute" to a violation of any requirement of this Order, is prohibited.
6. Introduction of "pollutant free" wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this Order is prohibited.

B. Central Coast Standard Provisions – Provisions

1. Collection, treatment, and discharge of waste shall not create nuisance or pollution, as defined by California Water Code Section 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 of in a manner approved by the Central Coast Water Board Executive Officer.
5. Wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23 of the California Code of Regulations.
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.

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

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

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

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

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

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

   d. Correction of technical mistakes or mistaken interpretations of law.

   e. Other causes set forth under subpart D of 40 C.F.R. part 122.

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

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

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

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

11. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Electrical and mechanical equipment shall be maintained in accordance with appropriate practices and standards, such as NFPA 70B, Recommended Practice for Electrical Equipment Maintenance; NFPA 70E, Standard for Electrical Safety in the Workplace; ANSI/NETA MTS Standard for Maintenance: Testing Specifications for Electrical Power Equipment and Systems, or procedures established by insurance companies or other industry resources.

12. If the Discharger's facilities are equipped with SCADA or other systems that implement wireless, remote operation, the Discharger should implement appropriate safeguards against unauthorized access to the wireless systems. Standards such as NIST SP 800-53, Recommended Security Controls for Federal Information Systems, can provide guidance.

13. Production and use of recycled water is subject to the approval of the Central Coast Water Board. Production and use of recycled water shall be in conformance with chapter

3, division 4, title 22 of the California Code of Regulations (Water Recycling Criteria) and chapter 7, division 7 of the California Water Code (Water Recycling Law). An engineering report pursuant title 22, of the California Code of Regulations is required and a waiver or water recycling requirements from the Central Coast Water Board is required before recycled 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 Central Coast 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 Order shall be by a laboratory certified by the State Water Board Division of Drinking Water (formerly California Department of Public Health) for the constituents being analyzed. Bioassays performed to monitor compliance with this Order shall be in accord with guidelines approved by the State Water Resources Control Board (State Water Board) and the Department of Fish and Wildlife.

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

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

D. Central Coast Standard Provisions – General Reporting Requirements

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

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

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

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

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

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

2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within this Order. 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 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 or disposal facilities within four years, the Discharger shall file a written report with the Central Coast Water Board. The report shall include:

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

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

5. The Discharger shall submit monitoring reports (both eSMRs and DMRs) electronically to the CIWQS website. All other correspondence or reports shall be sent electronically to:

   Central Coast Water Board
   centralcoast@waterboards.ca.gov

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

7. Except for data determined to be confidential under CWA section 308 (excludes effluent data and permit applications), all reports prepared in accordance with this Order shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of U.S. EPA. Please also see Federal Standard Provision – Records IV.C

8. By January 30 of each year, the Discharger shall submit an annual report to the Central Coast Water Board. The report shall contain the following:

a. Both tabular and graphical summaries of the monitoring data obtained during the previous year.

b. A discussion of the previous year's compliance record and corrective actions taken, or which may be needed, to bring the Discharger into full compliance.

c. An evaluation of wastewater flows with projected flow rate increases over time and the estimated date when flows will reach facility capacity.

d. A discussion of operator certification and a list of current operating personnel and their grades of certification.

e. 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.

f. A discussion of the laboratories used by the Discharger to monitor compliance with effluent limitation and a summary of performance relative to Section C, General Monitoring Requirements.

g. 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.

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

E. Central Coast Standard Provisions – General Pretreatment Provisions

Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (40 C.F.R. part 403 appendix C), 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 by the date specified therein or, if a new indirect discharger, upon commencement of discharge.

F. Central Coast Standard Provisions – Enforcement

1. Any person failing to file a report of waste discharge or other report as required by this Order 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 Order, 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 individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.

2. "Daily Maximum" limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples" except for ammonia, total chlorine,

phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a “grab sample.”

3. “Discharger," as used herein, means, as appropriate: (1) the Discharger, (2) the local sewering entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger,” it refers to the discharger.)

4. Duly Authorized Representative" is one where:

   a. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision V.B.;

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

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

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

6. "Hazardous substance” means any substance designated under 40 C.F.R. part 116 pursuant to Section 311 of the Clean Water Act.

7. "Incompatible wastes” are:

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

   b. Wastes that will cause corrosive structural damage to treatment works, or wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes.

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

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

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

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

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

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

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

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

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

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

where “C" (in mg/L) is the measured daily constituent concentration or the average of measured daily constituent concentrations and “Q” (in million gallons per day, MGD) is the measured daily flowrate or the average of measured daily flowrates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph G.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.
12. “Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision G.10, above, using the "six-month median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.
13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.
14. "Monthly Average" (or "Weekly Average,” as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period.

    Average = (X1 + X2 + ... + Xn) / n

    in which “n" is the number of days that samples were analyzed during the period and “X" is either the constituent concentration (mg/L) or mass emission rate (kg/day or lbs/day) for each sampled day. “n" should be four or greater.
15. “Municipality" means a city, town, borough, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial waste, or other waste.
16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.
17. "Pollutant-free wastewater" means inflow and infiltration, stormwaters, and cooling waters and condensates which are essentially free of pollutants.
18. “Primary Industry Category" means any industry category listed in 40 C.F.R. part 122, Appendix A.
19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using “Monthly averages" of pollutant concentrations (C, in mg/L) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

    $C_{Effluent}$ Removal Efficiency (%) = 100 x (1 – $C_{effluent}$ / $C_{influent}$)
20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss to natural resources that can reasonably be expected to occur in the absence of a "bypass.” It does not mean economic loss caused by delays in production.
21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
22. To "significantly contribute" to a permit violation means an "indirect discharger" must:

a. Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by federal, state, or local law;

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

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

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

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board) 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 not be changed without notification to and approval of the Central Coast Water Board.

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

1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
3. *Flow Measurement in Open Channels and Closed Conduits,* U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 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. part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005). Analyses for toxics listed in Table 3 of the 2019 California Ocean Plan (Ocean Plan) shall adhere to guidance and requirements contained in that document.

G. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

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
---	INF-001	Influent wastewater prior to treatment and following all significant inputs to the collection system or the headworks of untreated wastewater, upstream of any in-plant return flows, where representative samples of wastewater influent can be obtained.
001	M-001	Location where a representative sample of the secondary treated effluent can be collected, after treatment and chlorination/dechlorination steps, when not discharging desalination brine.
002	RCY-001	Location where representative sample of final disinfected tertiary recycled water can be collected.
001	EFF-001A	Location where a representative sample of the secondary treated wastewater effluent can be collected, after treatment and chlorination/dechlorination steps and prior to commingling with any other waste streams, before contact with the receiving water.
001	EFF-001B	Location where a representative sample of the commingled effluent (secondary treated wastewater and desalination brine) discharged through the ocean outfall can be collected prior to contact with the receiving water.
---	RSW-A	Receiving water station – Surf at Leadbetter Beach
---	RSW-C	Receiving water station – Surf at Stearns Wharf Pier
---	RSW-D	Receiving water station – Surf at the end of Santa Barbara Street
---	RSW-F	Receiving water station – Surf opposite Palm Park restroom
---	RSW-H	Receiving water station – Surf opposite bird refuge

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	RSW-1	Receiving water station – Within 328' (100 m) of outfall diffuser
---	RSW-2	Receiving water station – 1,400' north from the end of new outfall
---	RSW-3	Receiving water station – Near end of old outfall
---	RSW-4	Receiving water station – 6,500' west of new outfall, at the same depth contour as RSW-1
---	RSW-5	Receiving water station –1,400' east of the new outfall
---	RSW-6	Receiving water station – 1,400' south of the new outfall
---	RSW-7	Receiving water station – 1,400' west of the new outfall
---	RSW-8	Receiving water station – 8,000' east of the new outfall, at the same depth contour as RSW-1
---	REF-001	Salinity Reference Station – CalCOFI Station 40.6 (34.23 deg. N, 119.41 deg 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 Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1][2][7]	MGD	Calculated	1/Day
pH[2]	standard units	Metered	Continuous[3]
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)	mg/L	24-hr Composite	1/Month
Total Suspended Solids (TSS)	mg/L	24-hr Composite	1/Month
Ocean Plan Table 3 Pollutants[4]	µg/L	24-hr Composite	September[5]
Remaining Priority Pollutants[6]	µg/L	24-hr Composite	September[5]

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

[2] Parameters evaluated at confluent location.

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

[4] Those pollutants identified in Table 3 of the Ocean Plan (2019). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 1; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

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

[6] See Table E-6 below for remaining priority pollutants.

[7] The State Water Board Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker at http://geotracker.waterboards.ca.gov.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001

1. When not discharging desalination brine, the Discharger shall monitor treated wastewater at Monitoring Location M-001, in accordance with the following schedule.

Table E-3. Effluent Monitoring at Monitoring Location M-001 – When Not Discharging Desalination Brine

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	MGD	Metered	Continuous
$CBOD_5$[2]	mg/L	24-hr Composite	1/6 Days
TSS[2]	mg/L	24-hr Composite	1/Day
Salinity	ppt	Grab	1/Week
Turbidity	NTU	Grab	1/Day
pH	standard units	Grab	1/Week
Total Chlorine Residual[3]	mg/L	Grab	1/Day
Temperature	°F	Grab	1/6 Days
Oil and Grease	mg/L	Grab	1/6 Days
Settleable Solids	ml/L	Grab	1/Week
Ammonia (expressed as nitrogen)	mg/L	Grab	2/Year[4]
Total Coliform Organisms[5][6]	MPN/100 mL	Grab	1/Day
Fecal Coliform Organisms[5][6]	MPN/100 mL	Grab	1/Day
Enterococcus [6]	MPN/100 mL	Grab	1/Week
Acute Toxicity[7]	TUa	24-hr Composite	1/Quarter[8]
Chronic Toxicity[7]	TUc	24-hr Composite	2/Year[4]
Silver, Total Recoverable	µg/L	24-hr Composite	1/Quarter[8]
Heptachlor	µg/L	24-hr Composite	1/Quarter[8]
Heptachlor Epoxide	µg/L	24-hr Composite	1/Quarter[8]
Total Sulfides	mg/L	Grab	1/Quarter[8]
Ocean Plan Table 3 Metals[9]	µg/L	24-hr Composite	1/Year (September)
Ocean Plan Table 3 Pollutants[10]	µg/L	24-hr Composite	1/Year (September)

[1] The Discharger shall report the daily average and daily maximum flow for each day. In addition, the Discharger shall report the mean daily flow and maximum daily flow for each month. The State Water Board Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of wastewater produced, and effluent, including treatment level and discharge type. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker at http://geotracker.waterboards.ca.gov.

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

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

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

[5] The Discharger shall notify the California Department of Public Health Preharvest Shellfish Sanitation Unit, the Regional Water Board, the Santa Barbara County Environmental Health Services Department, and any shellfish leaseholders with

active shellfish growing operations in the area as soon as possible, and no more than 12-hours after the Discharger becomes aware of, when there is a loss of disinfection or if three consecutive total effluent coliform bacteria tests exceed 16,000 per 100 mL.

[6] For total and fecal coliform bacterial analyses, sample dilutions should be performed so the range of bacterial density values extends from 2 to 16,000/100 mL. For enterococcus bacterial analyses, sample dilutions should be performed so the range of bacterial values extends from 1 to 10,000/ 100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. The detection methods used for coliforms shall be those presented in Table 1A of 40 C.F.R. 136 (revised edition of July 1, 2003, or later), unless alternate methods have been approved in advanced by U.S. EPA pursuant to 40 C.F.R. 136. The detection methods used for enterococcus shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR part 136, and any other method approved by the Central Coast Water Board.

[7] Acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V of this MRP. The minimum initial dilution for the Facility is currently calculated as 120:1 without desalination facility brine discharge, and 44:1 with brine discharge. Chronic toxicity testing is required for ratios above 100:1.

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

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

[10] Those pollutants identified in Table 3 of the Ocean Plan (2019). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 3; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML. Monitoring for the Table 3 pollutants shall occur one time per year. Analysis for all Table 3 pollutants can coincide with monitoring for the Table 3 metals so that analysis for metals is not duplicated.

B. Monitoring Location EFF-001A

1. When discharging commingled treated wastewater and desalination brine, the Discharger shall monitor treated wastewater at Monitoring Location EFF-001A, prior to the commingling with desalination brine, in accordance with the following schedule.

Table E-4. Effluent Monitoring at Monitoring Location EFF-001A – When Discharging Commingled Treated Wastewater and Desalination Brine

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	MGD	Metered	Continuous
$CBOD_5$[2]	mg/L	24-hr Composite	1/6 Days
TSS[2]	mg/L	24-hr Composite	1/Day
pH	standard units	Grab	1/Day
Total Chlorine Residual [3]	mg/L	Meter	Continuous
Temperature	°F	Grab	1/6 Days
Total Coliform Organisms[4][5]	MPN/100 mL	Grab	1/Day
Fecal Coliform Organisms[4][5]	MPN/100 mL	Grab	1/Day
Enterococcus[5]	MPN/100 mL	Grab	1/Week
Ammonia (expressed as nitrogen)	mg/L	Grab	1/Month

[1] The Discharger shall report the daily average and daily maximum flow for each day. In addition, the Discharger shall report the mean daily flow and maximum daily flow for each month. The State Water Board Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of wastewater produced, and effluent, including treatment level and discharge type. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker at http://geotracker.waterboards.ca.gov.

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

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

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

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

C. Monitoring Location EFF-001B

1. When discharging commingled treated wastewater desalination brine, the Discharger shall monitor commingled effluent at Monitoring Location EFF-001B, in accordance with the following schedule.

Table E-5. Effluent Monitoring at Monitoring Location EFF-001B – When Discharging Commingled Treated Wastewater and Desalination Brine

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

[1] The Discharger shall report the daily average and daily maximum flow for each day. In addition, the Discharger shall report the mean daily flow and maximum daily flow for each month. The State Water Board Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of wastewater produced, and effluent, including treatment level and discharge type. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker at http://geotracker. waterboards. ca.gov.

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

[3] Semi-annual monitoring shall be conducted during the months of March and September.

[4] Acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V of this MRP. The minimum initial dilution for the Facility is currently calculated as 120:1 without desalination facility brine discharge, and 44:1 with brine discharge.

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

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

[7] Those pollutants identified in Table 3 of the Ocean Plan (2019). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards so that the Minimum

Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 3; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML. Monitoring for the Table 3 pollutants shall occur one time per year. Analysis for all Table 3 pollutants can coincide with monitoring for the Table 3 metals so that analysis for metals is not duplicated.

Table E-6. Remaining Priority Pollutants

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

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

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

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

$$\text{Acute Toxicity (TUa)} = 100/96\text{-hr } LC_{50}$$

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

Table E-7. Approved Tests – Acute Toxicity

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

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

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

When it is not possible to measure the 96-hour LC50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

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

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

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

B. Chronic Toxicity

The presence of chronic toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA-821/600/R-95/136; *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA-600-4-01-003; *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 2019 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 limitation. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period of no fewer than three sampling events, monitoring can be reduced to the most sensitive species. 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-8. Approved Tests – Chronic Toxicity

Species	Effect	Tier[1]	Reference[2]
Giant Kelp, *Macrocystis pyrifera*	Percent germination; germ tube length	1	a, c
Red abalone, *Haliotis rufescens*	Abnormal shell development	1	a, c
Oyster. *Crassostrea gigas*; Mussels, *Mytilus spp*.	Abnormal shell development; percent survival	1	a, c
Urchin,*Strongylocentrotus purpuratus*; Sand dollar, *Dendraster excentricus*	Percent normal development; percent fertilization	1	a, c
Shrimp, *Holmesimysis costata*	Percent survival; growth	1	a, c
Shrimp, *Mysidopsis bahia*	Percent survival; fecundity	2	b, d
Topsmelt, *Atherinops affinis*	Larval growth rate; percent survival	1	a, c
Silversides, *Menidia beryllina*	Larval growth rate; percent survival	2	b, d

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

[2] Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. 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.

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 Mary 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, EPA-821-R-01-012 (2002) or the latest edition, or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012 (2002) or subsequent editions.

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

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

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

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

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

VI. LAND DISCHARGE MONITORING REQUIREMENTS – Not Applicable

VII. RECYCLING MONITORING REQUIREMENTS

The Discharger shall comply with applicable state and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the California Department of Public Health at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Criteria.

A. MONITORING LOCATIONS RCY-001

1. When producing recycled water, the discharger shall monitor recycled water at location RCY-001 as follows in Table E-9 below. As per the State Water Board Recycled Water Policy monitoring requirements, the Discharger shall report the annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22 in each of the use categories listed below:

1) Agricultural irrigation: pasture or crop irrigation.
2) Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.
3) Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.
4) Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.

5) Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.
6) Geothermal energy production: augmentation of geothermal fields.
7) Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.
8) Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.
9) Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface.

Table E-9. Recycled Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow[1]	MGD	Metered	Daily
Maximum Daily Flow[1]	MGD		Monthly
Mean Daily Flow[1]	MGD	Calculated	Monthly
Total Coliform	MPN/100mL	Grab	Daily
Turbidity	NTU	Metered	Continuous
Total Non-Filterable Residue (Suspended Solids)	mg/L	24-hr Composite	5 days/week
Total Dissolved Solids	mg/L	24-hr Composite	Quarterly
pH	standard units	Grab	1/Day
Settleable Solids	mL/L/hr	Grab	Daily
Chlorine Residual[2]	mg/L	Metered	Continuous
Cadmium	mg/L	24-hr Composite	Quarterly
Lead	mg/L	24-hr Composite	Quarterly

[1] Flow shall be metered at the distribution system pump station to provide a record of the quantity of reclaimed water used each day (per normal irrigation period). The State Water Board Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of wastewater produced, and effluent, including treatment level and discharge type. Dischargers are additionally required to annually report recycled water use by volume and category of reuse. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker at http://geotracker.waterboards.ca.gov.

[2] Report daily maximum and daily minimum values prior to discharge and at the end of the Recycle Water Reservoir. Compliance shall be determined by daily minimum values measured within the chlorine contact zone at the end of the Recycle Water Reservoir.

2. In the event the Discharger is unable to comply with the conditions of the water recycling requirements and prohibitions, the Discharger shall immediately notify the Central Coast Water Board by telephone and submit a written follow-up report with two weeks of the noncompliance. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps are being taken to prevent the problems from recurring.

3. An annual self-monitoring report shall be submitted to the Central Coast Water Board by January 30 of the following year. The report shall include:

a. A letter transmitting self-monitoring reports should accompany each report. The letter shall include a discussion of violations found during the reporting period and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing

corrective actions or a time schedule for implementing corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

b. Tabulations of the results of each required analysis by the Discharger specified in Table E-9 by date, time, type of sample, and station.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Receiving Water Monitoring – Monitoring Locations RSW-A, RSW-C, RSW-D, RSW-F, and RSW-H

1. If three consecutive effluent total coliform and/or fecal coliform bacteria tests, in any combination, exceed 16,000 per 100 mL or 3,200 per 100 mL, respectively, samples of the receiving water shall be collected at Monitoring Locations RSW-A, RSW-C, RSW-D, RSW-F, and RSW-H and analyzed as specified in Table E-10:

Table E-10. Receiving Water Monitoring Requirements

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

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

[2] Sample dilutions shall be performed so the range of values extends from 20 to 160,000/100 mL. Detection methods used for total and fecal coliform shall be those presented in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*, or any improved method determined appropriate by the Regional Water Board and approved by U.S. EPA. 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 any improved method determined appropriate by the Regional Water Board and approved by U.S. EPA.

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

B. Receiving Water Salinity Monitoring – Monitoring Location RSW-1

1. The Discharger shall monitor the Pacific Ocean at Monitoring Location RSW-001 as follows:

Table E-11. Receiving Water Monitoring Requirements at RSW-1

Parameter	Units	Sample Type	Minimum Sampling Frequency
Salinity[1]	ppt	Profile[2]	1/Month[3][4]

[1] In the event that the Discharger is unable to collect salinity data at RSW-1, the Discharger shall use the best available data to calculate natural background salinity as the average of 20 years of historical salinity collected in the proximity of discharge. The mean value shall be used for compliance determination and the Discharger shall specify in the Monitoring Report the reason why salinity could not be measured at RSW-1.

[2] Salinity shall be measured at a minimum at the surface, mid-depth, and bottom.

[3] Salinity shall be measured on a monthly basis. The Discharger shall report mean salinity and individual results in SMRs.

[4] If first year sampling (defined by 12 sampling events) verifies compliance with the receiving water limitation, subsequent sampling events may be reduced to once every year.

C. Benthic Sediment Monitoring – Monitoring Locations RSW-1 through RSW-8

Benthic sediment monitoring shall be conducted in 2023. Benthic monitoring shall assess the temporal and spatial occurrence of pollutants in local marine sediments and evaluate the physical and chemical quality of the sediments in relation to the outfall. At all benthic monitoring stations, one grab sample shall be collected using a 0.1 m^3 Van Veen grab sampler.

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

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

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

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

Table E-12. Benthic Sediment Monitoring Requirements

Parameter	Units
Sulfides (at pH 7)	mg/kg
Particle size distribution (including % retained on #200 sieve)	Phi (% volume)
Organic Matter (volatile solids or total organic carbon)	mg/kg
Total Coliform Bacteria	#/100 g
Fecal Coliform Bacteria	#/100 g
Biochemical Oxygen Demand	mg/kg
Arsenic, Total Recoverable	mg/kg
Cadmium, Total Recoverable	mg/kg
Total Chromium, Total Recoverable	mg/kg
$Chromium^{+6}$, Total Recoverable	mg/kg
Copper, Total Recoverable	mg/kg
Lead, Total Recoverable	mg/kg

Parameter	Units
Nickel, Total Recoverable	mg/kg
Mercury, Total Recoverable	mg/kg
Silver, Total Recoverable	mg/kg
Zinc, Total Recoverable	mg/kg
Iron	mg/kg
Total Kjeldahl Nitrogen	mg/kg
Ammonia	mg/kg

D. Benthic Biota Monitoring – Monitoring Locations RSW-1, RSW-4, RSW-7, and RSW-8

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

1. At least four benthic samples shall be taken at each of the four ocean monitoring stations (RSW-1, RSW-4, RSW-7 and RSW-8) using a 0.1 m^3 Van Veen grab sampler.
2. For benthic infauna analyses, each replicate sample shall be passed through a 1 mm screen, and the organisms retained and preserved as appropriate for subsequent identification. It is recommended that sample preservation, sample processing, and data analyses be conducted according to *Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods* (EPA 430/9-86-004, 1987),
3. Benthic infauna from each replicate sample shall be counted and identified to the lowest possible taxon. For each replicate sample, number of individuals, number of species, and number of individuals per species, and within each major taxonomic group (polychaetes, mollusks, crustaceans, echinoderms, and all other macroinvertebrates) shall be recorded.
4. The Annual Report shall include a complete discussion of benthic infaunal survey results and (possible) influence of the outfall on benthic infaunal communities in the study area. The discussion should be based on graphical, tabular, and/or appropriate statistical analyses of spatial and temporal patterns. Temporal trends in the number of individuals, number of species, number of individuals per species, and community structure indices, species richness (S), Margalef index (d), Shannon-Wiener index (H'), Brillouin index (h), Simpson's index (SI), Swartz's dominance, and Infaunal Trophic Index (ITI) shall be reported. Statistical analyses shall include multivariate techniques consisting of classification and ordination analysis. The Annual Report shall also present an analysis of natural community variation including the effects of different sediment conditions, oceanic seasons, and water temperatures, etc., that could influence the validity of study results. Survey results shall be compared to pre-discharge and/or historical data using appropriate statistical methods, if available.

E. Chemical Analysis of Biota – Monitoring Locations RSW-1, RSW-2, RSW-5, RSW-6, and RSW-7

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

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

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

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

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

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids Monitoring

1. The following information shall be submitted with the Annual Report required by Central Coast Regional Water Board Standard Provision D-8. Adequate detail shall be included to characterize biosolids in accordance with 40 C.F.R. Part 503.
    a. Annual biosolids production in dry tons and percent solids.
    b. A schematic drawing showing biosolids handling facilities (e.g., digesters, lagoons, drying beds, incinerators) and a solids flow diagram.
    c. A narrative description of biosolids dewatering and other treatment processes, including process parameters. For example, if biosolids are digested, report average temperature and retention time of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.
    d. A description of disposal methods, including the following information as applicable related to the disposal methods used at the facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.
        i. For landfill disposal include: 1) the Regional Board WDR numbers that regulate the landfills used, 2) the present classifications of the landfills used, and 3) the names and locations of the facilities receiving biosolids.
        ii. For land application include: 1) the location of the site(s), 2) the Regional Board's WDR numbers that regulate the site(s), 3) the application rate in lbs/acre/year (specify wet or dry), and 4) subsequent uses of the land.
        iii. For offsite application by a licensed hauler and composter include: 1) the name, address and U.S. EPA license number of the hauler and composter.
    e. 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.

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

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

Table E-13. Biosolids Monitoring Requirements

Parameter	Units	Sample Type	Minimum Frequency of Sampling
Quantity	Tons or Cubic Yards	Measured	As Transported
Location of Disposal	Site	Composite	As Transported
Percent moisture	Percent	Composite	[1]
Total Kjeldahl Nitrogen	mg/kg	Composite	[1]
Ammonia (as N)	mg/kg	Composite	[1]
Nitrate (as N)	mg/kg	Composite	[1]
Total Phosphorus	mg/kg	Composite	[1]
pH	standard units	Composite	[1]
Oil and Grease	mg/kg	Composite	[1]
Arsenic, Total Recoverable	mg/kg	Composite	[1]
Boron	mg/kg	Composite	[1]
Cadmium, Total Recoverable	mg/kg	Composite	[1]
Copper, Total Recoverable	mg/kg	Composite	[1]
Chromium, Total	mg/kg	Composite	[1]
Lead, Total Recoverable	mg/kg	Composite	[1]
Nickel, Total Recoverable	mg/kg	Composite	[1]
Mercury, Total Recoverable	mg/kg	Composite	[1]
Molybdenum	mg/kg	Composite	[1]
Selenium, Total Recoverable	mg/kg	Composite	[1]
Silver, Total Recoverable	mg/kg	Composite	[1]
Zinc, Total Recoverable	mg/kg	Composite	[1]
Priority Pollutants[2]	mg/kg	Composite	1/Year
Paint Filter Test	---	Composite	[1][3]

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

B. Pretreatment Monitoring

1. At least once per year, influent, effluent (at Monitoring Location EFF-001A, prior to comingling with desalination brine), and biosolids shall be sampled and analyzed for the priority pollutants identified under section 307(a) of the Clean Water Act. The Discharger shall summarize analytical results from representative, flow-proportioned, 24-hour composite sampling of the plant's influent and effluent for those pollutants EPA has

identified under CWA section 307(a) which are known or are suspected to be discharged by industrial users. The Discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 C.F.R. Part 136. Biosolids shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The biosolids analyzed shall be a composite sample of a minimum of twelve discrete samples taken at equal time intervals over the 24-hour period.

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

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

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

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

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

   b. Consistently achieving compliance;

   c. Inconsistently achieving compliance;

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

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

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

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

5. A summary of inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding industrial users. The summary shall include:
    a. Names and addresses of the industrial users subject to surveillance by the Discharger and an explanation of whether the users were inspected, sampled, or both, and the frequency of these activities at each user facility; and
    b. Conclusions or results from the inspection or sampling of each industrial user.
6. A summary of compliance and enforcement activities during the past year. The summary shall include names and addresses of the industrial users affected by the following actions:
    a. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the Federal Categorical Standards or local discharge limitations;
    b. Administrative Orders regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
    c. Civil actions regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
    d. Criminal actions regarding the industrial user's noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned Federal Categorical Standards or local discharge limitations;
    e. Assessment of monetary penalties. For each industrial user, identify the amount of the penalties;
    f. Restriction of flow to the wastewater treatment facility; or
    g. Disconnection from the wastewater treatment facility.
7. A description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's approved Pretreatment Program, including but not limited to changes concerning:
    a. The program's administrative structure;
    b. Local industrial discharge limitations;
    c. Monitoring program or monitoring frequencies;
    d. Legal authority or enforcement policy;
    e. Funding mechanisms;
    f. Resource requirements; or
    g. Staffing levels.
8. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

9. A summary of public participation activities to involve and inform the public.
10. A description of any changes in biosolids disposal methods and a discussion of any concerns not described elsewhere in the report.
11. In the event that the Discharger is not incompliance with any conditions or requirements of this permit affected by the pretreatment program, including any noncompliance with pretreatment audit or compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.
12. Quarterly and annual reporting shall be conducted as specified in section X.D.2 of this MRP.

C. Outfall Inspection

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

D. Rainfall

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

E. Total Chlorine Used

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

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website at <http://www.waterboards.ca.gov/water_issues/programs/ciwqs/>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more

frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-14. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Effective permit date (see Table 3)	All	First day of second calendar month following month of sampling
Hourly	Effective permit date (see Table 3)	Hourly	
Daily	Effective permit date (see Table 3)	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30, July 1 through December 31	Submit with next monthly SMR
Annually	January 1 following (or on) permit effective date	January 1 through December 31	February 1
Once over the term of the Permit	January 1 following (or on) permit effective date	Permit term	The earliest of May 1, Aug 1, Nov 1, or Feb 1 following the monitoring event

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.

   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. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

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

5. Compliance Determination. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Central Coast Water Board and State Water Board, 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).

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

   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 SMRs in accordance with the following requirements:

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

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

C. Discharge Monitoring Reports (DMRs)

1. DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at: <http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring>.

D. Other Reports

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

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

   CIWQS database: http://ciwqs.waterboards.ca.gov/

   US EPA, Region 9
   R9Pretreatment@epa.gov

3. By February 19th of each year, the Discharger shall submit an annual biosolids report the Regional Water Board, as specified in section IX.A of the MRP. In addition, a copy of the biosolids report shall be submitted to the U.S. EPA CDX e-reporting system.
4. By May 10, 2022, the Discharger shall submit a sea-level rise adaption plan to the Central Coast Water Board for Executive Officer review.

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, 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 420108001
Discharger	City of Santa Barbara
Name of Facility	El Estero Water Resource Center
Facility Address	520 East Yanonali Street
	Santa Barbara
	Santa Barbara
Facility Contact, Title and Phone	Todd Heldoorn, Wastewater Treatment Superintendent, (805) 568-1003
Authorized Person to Sign and Submit Reports	Todd Heldoorn, Wastewater Treatment Superintendent, (805) 568-1003
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Producer
Facility Permitted Flow	11 million gallons per day (MGD) of secondary treated wastewater 12.5 MGD of desalination brine
Facility Design Flow	11 MGD (for wastewater treatment plant)
Watershed	Santa Barbara HAS (315.32)
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean Waters

A. The City of Santa Barbara (hereinafter Discharger) is the owner and operator of the El Estero Water Resource Center (hereinafter Facility), a publicly owned treatment works (POTW) that provides secondary treatment of municipal and industrial wastewater. The City of Santa Barbara also owns a seawater desalination facility. When in operation, waste brine from the desalination facility is commingled with secondary treated wastewater from the Facility for disposal.

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

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order No. R3-2010-0011, which was adopted on May 13, 2010, amended on January 30, 2015, and expired on May 13, 2015. The terms and conditions of the current Order have been automatically continued and remain in effect until new waste discharge requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic for the Facility.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its WDRs and NPDES permit on November 10, 2014.

D. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

The Discharger owns and operates a wastewater treatment and disposal system to provide sewerage service to the City of Santa Barbara and portions of Santa Barbara County, serving a population of approximately 98,818. Santa Barbara County retains ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into interceptors owned and operated by the City. The County of Santa Barbara owns five miles of mainlines in Mission Canyon that is maintained by the City. The Central Coast Water Board regulates the collection system under General Order No. 2006-0003-DWQ.

Secondary treatment of domestic and industrial wastewater consists of screening and grinding, aerated grit removal, primary sedimentation, activated sludge stabilization, secondary clarification, disinfection (with sodium hypochlorite) and dechlorination (with sodium bisulfite). Biosolids are processed by gravity thickening, dissolved air floatation thickening, anaerobic digestion, and belt press dewatering. Dewatered solids are transported off-site for disposal. In 2016, the City of Santa Barbara installed two high-density polyethylene (HDPE) 55-gallon capacity in-line containers along with the chemical feed system to drain hypochlorite into the chlorine contact chamber to address the reporting issues associated with chemical feed disruption.

Prior to the chlorine contact chamber, a portion of the secondary treated effluent is diverted to a newly modified tertiary membrane filtration system. The secondary treated effluent is pretreated before passing through the membrane filtration system. The membrane filtration system includes feed pumps, automatic strainers, microfiltration/ultrafiltration membranes, and filtrate tank. After filtration, the effluent is chlorinated in a chlorine contact basin and used for non-potable water reuse applications (e.g. landscape irrigation, construction for dust control and soil compaction, toilet flushing, and the Facility's process water). This Order covers the production of the tertiary treated water for recycling. The distribution and use of recycled water for irrigation are regulated separately by SWRCB General Water Reclamation Requirements for Recycled Water Use (currently Order No. 2016-0068).

The remaining secondary treated effluent goes through the disinfection and dechlorination process prior to discharge to the Pacific Ocean. The design average dry weather flow treatment capacity of the wastewater treatment system is 11 million gallons per day (MGD), with a design peak flow of 19 MGD. The average influent flow from May 2010 to November 2018 was 7.53 MGD, and the average daily final effluent flow was 7.44 MGD.

The City of Santa Barbara also owns a seawater desalination facility (Charles Meyer Desalination Plant). The desalination facility was operational for a short time in 1994; however, it was placed in standby mode in 1996 and has been operational since 2017 to address drought-related water supply shortages. Depending on the desalination facility's freshwater production rate, the following waste brine and other supplemental desalination flows are discharged to the ocean outfall at flow rates that may range from 1.2 to 12.5 MGD with and without mixing with El Estero secondary effluent:

- Brine resulting from the reverse osmosis desalination process operation.
- Treated filter backwash water, including dewatering of backwash and lime clarifier solids. Backwash water is produced by the desalination facility's granular media filtration process, which removes naturally occurring solids and biological material from the seawater before it is desalinated by the facility's reverse osmosis process. Ferric sulfate and polymer may be added to the influent seawater to assist in the removal of the particulate matter by the granular media filtration process. Upon backwashing the filters, the backwash water is treated by a sedimentation process, aided by more polymer addition, where the backwash solids are thickened into a sludge that is subsequently dewatered and disposed of at a landfill. Solids and maintenance flows produced by the desalination facility's lime treatment system are also discharged to the backwash water treatment system where these solids and flows are treated and dewatered with the filter backwash water. The treated backwash water is subsequently combined with discharges that flow to the ocean outfall.
- Start-up and maintenance flows, off-spec treated seawater, and potable water may be temporarily discharged to the ocean outfall during initial facility start-up, during or after facility maintenance, or other times when the desalination facility is not delivering potable water to the City's customers. During such periods, the total maximum discharge rate shall not exceed 12.5 MGD. Temporarily discharging such water does not constitute a "bypass" as defined in Attachment D of this Order. All limits and requirements, including monitoring, specified in this Order remain applicable during these temporary discharges.
- Tank overflows and process water drains containing seawater, desalinated water, and potable water are also combined with brine flows discharged to the ocean outfall.

The Discharger conducted a hydrodynamic analysis in 2014 (updated in 2016 based upon the final design) titled: *Hydrodynamic Modeling of Brine Dilution and Dispersion from the El Estero Wastewater Treatment Plant Outfall, Santa Barbara, CA*. This study confirms that the waste brine and commingled brine/secondary treated effluent discharges at the outfall will satisfy NPDES permit requirements. The study also specifies that the present outfall design is capable of satisfying the initial dilution requirements under varying effluent flow rate conditions, with the worse mixing conditions resulting from low flow and brine only (i.e., no secondary effluent) discharge.

The Discharger constructed a brine disposal facility in 2018 where brine originating from a local water conditioning facility (Rayne of Santa Barbara, Inc.) is trucked in and discharged

through the Facility's existing outfall. This discharge is covered by the General Permit for Discharges with Low Threat to Water Quality (Order No. R3-2017-0042, CAG993001). During the previous permit term, the Discharger also upgraded various components of the brine discharge structure.

B. Discharge Points and Receiving Waters

Disinfected and dechlorinated secondary treated wastewater and waste brine are discharged to the Pacific Ocean through an 8,720-foot outfall system with diffusers located along the terminal 720 feet of the outfall. The outfall terminates in the Santa Barbara Channel (34.39194° N latitude; 119.6675° longitude) in approximately 70 feet of water. The minimum initial dilution ratio of the outfall/diffuser system is 120 to 1 (seawater to effluent) when no brine discharge occurs. When brine discharge does occur, the minimum initial dilution ratio is 44 to 1 (seawater to effluent). The hydraulic capacity of the outfall is 28 MGD.

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

Effluent limitations contained in Order R3-2010-0011 for discharges from Discharge Point No. 001 and representative monitoring data for Monitoring Locations M-001, EFF-001A, and EFF-001B from the term of the previous order are summarized below.

Table F-2. Historic Effluent Limitations for Major Constituents and Monitoring Data –Treated Wastewater Prior to Commingling

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)	mg/L	25	40	90	12	132	36
	lbs/day	2,290	3,670	8,260	721	846	1,299
	% Removal	85	---	---	88[1]	---	---
Total Suspended Solids (TSS)	mg/L	30	45	90	24	44	195
	lbs/day	2,750	4,130	8,260	1,432	2,528	1,024
	% Removal	85	---	---	91[1]	---	---
pH	standard units	6.0 – 9.0 at all times			6.5 – 8.2		

[1] Lowest percent removal.

Table F-3. Historic Effluent Limitations for Major Constituents and Monitoring Data – Final Effluent

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Oil and Grease	mg/L	25	40	75	4	14	27
Settleable Solids	mL/L	1.0	1.5	3.0	0.1	0.9	18

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Turbidity	NTU	75	100	225	11	12	100
pH	standard units	6.0 – 9.0 at all times			6.5 – 8.2		

Table F-4. Historic Effluent Limitations for the Protection of Marine Aquatic Life – When Not Discharging Desalination Brine

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		6-Month Median	Maximum Daily	Instant Max	Highest 6-Month Median Discharge	Highest Maximum Daily Discharge	Highest Instant Max Discharge
Arsenic, Total Recoverable	µg/L	608	3,512	9,320	18	23	NR
Cadmium, Total Recoverable	µg/L	121	484	1,210	5.0	<0.13	NR
Chromium (VI), Total Recoverable	µg/L	242	968	2,420	NR	6.2	NR
Copper, Total Recoverable	µg/L	123	1,212	3,390	91	91	NR
Lead, Total Recoverable	µg/L	242	968	2,420	5.5	5.9	NR
Mercury, Total Recoverable	µg/L	4.78	19.3	48.34	0.20	<0.045	NR
Nickel, Total Recoverable	µg/L	605	2,420	6,050	8.2	8.2	NR
Selenium, Total Recoverable	µg/L	1,815	7,260	18,150	5.0	4.1	NR
Silver, Total Recoverable	µg/L	66.5	319.6	827.8	8.5	34	NR
Zinc, Total Recoverable	µg/L	1,460	8,720	23,240	250	475	NR
Cyanide, Total	µg/L	121	484	1,210	20	<7	NR
Total Chlorine Residual	µg/L	242	968	7,260	6,000	676	NR
Ammonia (expressed as nitrogen)	µg/L	72,600	290,400	726,000	97,700	64.2	NR
Acute Toxicity	TUa	---	3.9	---	---	2.2	---
Chronic Toxicity	TUc	---	121	---	---	31	---
Non-Chlorinated Phenolics	µg/L	3,630	14,520	36,300	NR	630	NR

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		6-Month Median	Maximum Daily	Instant Max	Highest 6-Month Median Discharge	Highest Maximum Daily Discharge	Highest Instant Max Discharge
Chlorinated Phenolics	µg/L	121	484	1,210	NR	<1.9	NR
Endosulfan	µg/L	1.09	2.18	3.27	NR	<0.0047	NR
Endrin	µg/L	0.24	0.48	0.73	NR	<0.0047	NR
HCH	µg/L	0.48	0.97	1.45	NR	NR	NR
Radioactivity	[1]				---	---	---

NR = Not Reported

[1] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

Table F-5. Historic Effluent Limitations for the Protection of Human Health – When Not Discharging Desalination Brine

Parameter	Units	Effluent Limitation	Monitoring Data (From May 2010 To September 2018)
		30-Day Average	Highest 30-Day Average Discharge
Non-Carcinogens			
Acrolein	µg/L	26,600	<3.8
Antimony	µg/L	145,200	2.2
Bis(2-chloroethoxy) Methane	µg/L	532.4	<0.47
Bis(2-chloroisopropyl) Ether	µg/L	145,200	<0.47
Chlorobenzene	µg/L	68,970	<0.40
Chromium (III)	µg/L	22,990,000	2
Di-n-butyl Phthalate	µg/L	423,500	<1.0
Dichlorobenzenes	µg/L	617,100	<0.48
Diethyl Phthalate	µg/L	3,993,000	<0.94
Dimethyl Phthalate	µg/L	99,220,000	<0.47
4,6-dinitro-2-methylphenol	µg/L	26,620	<4.7
2,4-dinitrophenol	µg/L	484	<3.0
Ethylbenzene	µg/L	496,100	<0.40
Fluoranthene	µg/L	1,815	<0.050
Hexachlorocyclopentadiene	µg/L	7,018	<0.47
Nitrobenzene	µg/L	529.9	<0.94
Thallium	µg/L	242	2.1
Toluene	µg/L	10,285,000	<0.40
Tributyltin	µg/L	0.17	0.035
1,1,1-trichloroethane	µg/L	65,340,000	<0.40
Carcinogens			
Acrylonitrile	µg/L	12.1	<1.7
Aldrin	µg/L	0.0027	<0.0047

Parameter	Units	Effluent Limitation	Monitoring Data (From May 2010 To September 2018)
		30-Day Average	Highest 30-Day Average Discharge
Benzene	µg/L	713.9	<0.20
Benzidine	µg/L	0.0083	<4.7
Beryllium	µg/L	3.99	<0.29
Bis(2-chloroethyl) Ether	µg/L	5.45	<0.47
Bis(2-ethylhexyl) Phthalate	µg/L	423.5	7
Carbon Tetrachloride	µg/L	108.9	<0.20
Chlordane	µg/L	0.0028	<0.097
Chlorodibromomethane	µg/L	1,040.6	<0.40
Chloroform	µg/L	15,730	2.7
DDT	µg/L	0.0206	0.066
1,4-dichlorobenzene	µg/L	2,178	<0.40
3,3-dichlorobenzidine	µg/L	0.98	<2.5
1,2-dichloroethane	µg/L	3,388	<0.40
1,1-dichloroethylene	µg/L	108.9	<0.40
Dichlorobromomethane	µg/L	750.2	<0.40
Dichloromethane	µg/L	54,450	3.3
1,3-dichloropropene	µg/L	1,076.9	<0.20
Dieldrin	µg/L	0.0048	<0.0047
2,4-dinitrotoluene	µg/L	314.6	<1.0
1,2-diphenylhydrazine	µg/L	19.36	<0.94
Halomethanes	µg/L	15,730	2.0
Heptachlor	µg/L	0.006	11
Heptachlor Epoxide	µg/L	0.0024	0.014
Hexachlorobenzene	µg/L	0.025	<0.94
Hexachlorobutadiene	µg/L	1,694.6	<1.0
Hexachloroethane	µg/L	302.5	<1.0
Isophorone	µg/L	88,330	<0.94
N-nitrosodimethylamine	µg/L	883.3	39
N-nitrosodi-N-propylamine	µg/L	45.98	<1.0
N-nitrosodiphenylamine	µg/L	302.5	<0.94
PAHs	µg/L	1.06	<1.0
PCBs	µg/L	0.0023	<0.10
TCDD Equivalents	µg/L	4.7E-07	1.3E-06
1,1,2,2-tetrachloroethane	µg/L	278.3	<0.40
Tetrachloroethylene	µg/L	242	<0.40
Toxaphene	µg/L	0.025	<0.47
Trichloroethylene	µg/L	3,267	<0.40
1,1,2-trichloroethane	µg/L	1,137	<0.40
2,4,6-trichlorophenol	µg/L	35.09	<0.94
Vinyl Chloride	µg/L	4,356	<0.20

Table F-6. Historic Effluent Limitations for the Protection of Marine Aquatic Life- When Discharging Desalination Brine

Parameter	Units	Effluent Limitation			Monitoring Data (From May 2010 To September 2018)		
		6-Month Median	Maximum Daily	Instant Max	Highest 6-Month Median Discharge	Highest Maximum Daily Discharge	Highest Instant Max Discharge
Arsenic, Total Recoverable	µg/L	228	1,308	3,468	<10	3.1	NR
Cadmium, Total Recoverable	µg/L	45	180	450	<10	<1.0	NR
Chromium (VI), Total Recoverable[1]	µg/L	90	360	900	NR	22	NR
Copper, Total Recoverable	µg/L	47	452	1,262	11	12	NR
Lead, Total Recoverable	µg/L	90	360	900	<10	<1.0	NR
Mercury, Total Recoverable	µg/L	1.78	7.18	17.98	<0.20	<0.20	NR
Nickel, Total Recoverable	µg/L	225	900	2,250	<10	16	NR
Selenium, Total Recoverable	µg/L	675	2,700	6,750	13	120	NR
Silver, Total Recoverable	µg/L	24.46	118.96	307.96	<10	<1.0	NR
Zinc, Total Recoverable	µg/L	548	3,248	8,648	59	108	NR
Cyanide, Total Recoverable	µg/L	45	180	450	NR	NR	NR
Total Residual Chlorine	µg/L	90	360	2,700	<100	540	NR
Ammonia (expressed as nitrogen)	µg/L	27,000	108,000	270,000	23	30	NR
Acute Toxicity	TUa	---	1.62	---	---	0.94	---
Chronic Toxicity	TUc	---	45	---	---	18	---
Non-Chlorinated Phenolics	µg/L	1,350	5,400	13,500	<100	<100	NR
Chlorinated Phenolics	µg/L	45	180	450	<24	<24	NR
Endosulfan	µg/L	0.41	0.81	1.22	NR	NR	NR
Endrin	µg/L	0.09	0.17	0.27	NR	NR	NR
HCH	µg/L	0.18	0.36	0.54	NR	NR	NR
Radioactivity	[2]				---	---	---

NR = Not Reported

[1] Reported monitoring data are for total chromium.

[2] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

Table F-7. Historic Effluent Limitations for the Protection of Human Health – When Discharging Desalination Brine

Parameter	Units	Effluent Limitation	Monitoring Data (From May 2010 To September 2018)
		30-Day Average	Highest 30-Day Average Discharge
Non-Carcinogens			
Acrolein	µg/L	9,900	NR
Antimony	µg/L	54,000	NR
Bis(2-chloroethoxy) Methane	µg/L	198	NR
Bis(2-chloroisopropyl) Ether	µg/L	54,00	NR
Chlorobenzene	µg/L	25,650	NR
Chromium (III)	µg/L	8,550,000	NR
Di-n-butyl Phthalate	µg/L	157,500	NR
Dichlorobenzenes	µg/L	229,500	NR
Diethyl Phthalate	µg/L	1,485,000	NR
Dimethyl Phthalate	µg/L	36,900,000	NR
4,6-dinitro-2-methylphenol	µg/L	9,900	NR
2,4-dinitrophenol	µg/L	180	NR
Ethylbenzene	µg/L	184,500	NR
Fluoranthene	µg/L	675	NR
Hexachlorocyclopentadiene	µg/L	2,610	NR
Nitrobenzene	µg/L	220.5	NR
Thallium	µg/L	90	NR
Toluene	µg/L	3,825,000	NR
Tributyltin	µg/L	0.06	<0.003
1,1,1-trichloroethane	µg/L	24,300,000	NR
Carcinogens			
Acrylonitrile	µg/L	4.5	NR
Aldrin	µg/L	0.001	NR
Benzene	µg/L	265	NR
Benzidine	µg/L	0.003	NR
Beryllium	µg/L	1.48	NR
Bis(2-chloroethyl) Ether	µg/L	2.02	NR
Bis(2-ethylhexyl) Phthalate	µg/L	157.5	NR
Carbon Tetrachloride	µg/L	40.5	NR
Chlordane	µg/L	0.001	NR
Chlorodibromomethane	µg/L	3.387	NR
Chloroform	µg/L	5,850	NR
DDT	µg/L	0.0076	NR
1,4-dichlorobenzene	µg/L	810	NR
3,3-dichlorobenzidine	µg/L	0.36	NR
1,2-dichloroethane	µg/L	1,260	NR
1,1-dichloroethylene	µg/L	40.5	NR

Parameter	Units	Effluent Limitation	Monitoring Data (From May 2010 To September 2018)
		30-Day Average	Highest 30-Day Average Discharge
Dichlorobromomethane	µg/L	279	NR
Dichloromethane	µg/L	20,250	NR
1,3-dichloropropene	µg/L	400.5	NR
Dieldrin	µg/L	0.0018	NR
2,4-dinitrotoluene	µg/L	117	NR
1,2-diphenylhydrazine	µg/L	7.2	NR
Halomethanes	µg/L	5,850	NR
Heptachlor	µg/L	0.0023	NR
Heptachlor Epoxide	µg/L	0.0009	NR
Hexachlorobenzene	µg/L	0.009	NR
Hexachlorobutadiene	µg/L	630	NR
Hexachloroethane	µg/L	112.5	NR
Isophorone	µg/L	32,850	NR
N-nitrosodimethylamine	µg/L	328.5	NR
N-nitrosodi-N-propylamine	µg/L	17.1	NR
N-nitrosodiphenylamine	µg/L	112.5	NR
PAHs	µg/L	0.396	NR
PCBs	µg/L	0.00086	NR
TCDD Equivalents	µg/L	0.00000018	NR
1,1,2,2-tetrachloroethane	µg/L	103.5	NR
Tetrachloroethylene	µg/L	90	NR
Toxaphene	µg/L	0.0095	NR
Trichloroethylene	µg/L	1,215	NR
1,1,2-trichloroethane	µg/L	423	NR
2,4,6-trichlorophenol	µg/L	13.05	NR

NR = Not Reported

D. Compliance Summary

The following table summarizes the Discharger's violations of effluent limitations and Facility incidents during the term of the previous order. Most of the exceedances were for coliform, total suspended solids (TSS), and settleable solids between July 2011 and March of 2012. The majority of these exceedances were caused by a filamentous bacteria upset in the secondary clarifiers. The discharger implemented corrective actions to prevent further recurrences. These effluent violations met the criteria for assessing mandatory minimum penalties, and the discharger paid a $96,000 penalty in 2013. Another effluent violation for TSS in August 2017 met the criteria for assessing mandatory minimum penalties, and a penalty of $3000 was assessed and paid in 2019. At the beginning of 2019, the secondary process system improvement project was commissioned. The newly configured secondary treatment process enables the system to produce high quality effluent, limiting or eliminating such violations from occurring again. Of the remaining violations, five were for deficient monitoring and one was for an unauthorized discharge. The discharger has taken several precautions to prevent future occurrences of untreated wastewater discharges and has

implemented laboratory procedures to ensure monitoring is conducted as required by the order.

Table F-8. Effluent Limitations Compliance Summary

Monitoring Location	Violation Date	Violation	Effluent Limitation	Reported Value	Units
EFF-001A	9/2/2018	Deficient monitoring of TSS daily maximum data. Operations staff mistakenly discarded the composite sample instead of collecting it.	90	15.5	mg/L
---	6/20/2018	Unauthorized discharge. Tertiary feed pump discharge pipe ruptured causing an unauthorized discharge of secondary treated effluent. The majority of the discharge returned to the influent sewer and approximately 1100 gallons was discharge to the Laguna Channel.	---	---	---
EFF 001A	5/29/2018	Deficient monitoring of ammonia. Ammonia sample was collected at the wrong sample location. Location EFF-001B (the last sample point before discharge) was analyzed for ammonia instead of EFF-001A.	---	---	---
EFF-001B	3/31/2018	The laboratory was unaware of the testing method for ammonia.	---	---	---
M-001	8/21/2017	TSS, Maximum Daily	90	195	mg/L
EFF-001B	9/16/2017	Total Chlorine Residual, Maximum Daily	360	540	µg/L
EFF-001B	3/8/2017	Settleable Solids, Maximum Daily	3.0	3.5	ml/L
EFF-001B	3/2/2017	Deficient monitoring. Total chlorine residual sample was not collected due to the unawareness of brine discharge event.	---	---	---
M-001	2/17/2017	TSS, Maximum Daily	8,260	10,263	lbs/day
EFF-001B	2/9/2017	Unauthorized discharge of the effluent.	---	---	---
EFF-001B	2/8/2017	Unauthorized discharge of the effluent.	---	---	---
---	1/20/2017	Unauthorized discharge of the effluent.	---	---	---
---	1/05/2017	Deficient monitoring of total chlorine residual.	---	---	---
---	8/11/2014	Loss of disinfection due to a breaker failure for the power supply to the sodium hypochlorite facility.	---	---	---
EFF-001	9/11/2013	Heptachlor, 30-Day Average	0.0023	0.11	µg/L
EFF-001	8/13/2013	TSS, Maximum Daily	90	96.4	mg/L
EFF-001	5/4/2012	Settleable Solids, Instantaneous Maximum	3.0	5.0	ml/L
EFF-001	3/20/2012	Total Coliform, 7-Day Median	2,300	3,000	MPN/100 mL
EFF-001	3/19/2012	Total Coliform, 7-Day Median	2,300	3,000	MPN/100 mL
EFF-001	3/18/2012	Total Coliform, 7-Day Median	2,300	3,000	MPN/100 mL
EFF-001	3/17/2012	Fecal Coliform, 7-Day Median	460	500	MPN/100 mL
EFF-001	3/17/2012	Total Coliform, 7-Day Median	2,300	9,000	MPN/100 mL
EFF-001	3/16/2012	Fecal Coliform, 7-Day Median	460	900	MPN/100 mL
EFF-001	3/16/2012	Total Coliform, 7-Day Median	2,300	9,000	MPN/100 mL
EFF-001	3/15/2012	Fecal Coliform 7-Day Median	460	400	MPN/100 mL
EFF-001	3/15/2012	Total Coliform, 7-Day Median	2,300	9,000	MPN/100 mL

Monitoring Location	Violation Date	Violation	Effluent Limitation	Reported Value	Units
EFF-001	3/14/2012	Settleable Solids, 30-Day Average	1.5	2.34	ml/L
EFF-001	3/14/2012	Settleable Solids, Maximum Daily	3.0	10	ml/L
EFF-001	3/11/2012	Total Coliform, 30-Day Period Maximum	16,000	30,000	MPN/100 mL
EFF-001	10/24/2011	Settleable Solids, Maximum Daily	3.0	7.5	ml/L
EFF-001	9/8/2011	Heptachlor Epoxide, 30-Day Average	0.0024	0.014	µg/L
EFF-001	9/1/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/31/2011	TSS, Monthly Average	30	38	mg/L
EFF-001	8/31/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/30/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/24/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/23/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/22/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/21/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/21/2011	TSS, Weekly Average	45	54.1	mg/L
EFF-001	8/20/2011	Total Coliform, 7-Day Median	2,300	2,400	MPN/100 mL
EFF-001	8/19/2011	Settleable Solids, Maximum Daily	3.0	10	ml/L
EFF-001	8/14/2011	Settleable Solids, Weekly Average	1.5	2.66	ml/L
EFF-001	8/14/2011	TSS, Weekly Average	45	54.7	mg/L
EFF-001	8/8/2011	Settleable Solids, Maximum Daily	3.0	18	ml/L
EFF-001	7/31/2011	TSS, Monthly Average	3.0	32.3	mg/L
EFF-001	7/12/2011	Total Coliform, 7-Day Median	2,300	5,000	MPN/100 mL
EFF-001	7/11/2011	Total Coliform, 7-Day Median	2,300	5,000	MPN/100 mL
EFF-001	7/10/2011	Total Coliform, 7-Day Median	2,300	5,000	MPN/100 mL
EFF-001	6/27/2011	Settleable Solids, Maximum Daily	3.0	5	ml/L

E. Planned Changes

During the term of this Order, the Discharger plans to upgrade treatment processes and related infrastructure through a variety of projects. These projects include:

- Influent Flow Monitoring and Sampling Project;
- Lift Station Rehabilitation Project;
- Update O&M Manual and related SOP Project;
- Concrete Repairs;
- Solids/Biosolids Assessment Project;
- El Estero Drainage Mitigation & Restoration Project;
- Recycle Water Pasteurization Feasibility Project; and
- Secondary Process System Improvement Project

The Secondary Process System Improvement Project has been implemented by the City to achieve better performance of the secondary treatment system at the Facility. Major upgrades will be made to multiple systems including the aeration system, secondary clarifier flow distribution, and return activated sludge/waste activated sludge system. The project is anticipated to be completed by 2019.

The El Estero Water Resource Center has increased the City capacity for self sufficient water supplies through increased recycling and desalination. Additionally, the City has evaluated the feasibility of future potable reuse. The alternatives that were evaluated in the *Potable*

Reuse Feasibility Study will provide useful information for a future update to the *City's Long Term Water Supply Plan* and provide for increased mitigation to more frequent drought cycles related to climate change.

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 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 U.S. EPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from the 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. This action also includes the reissuance of recycling specifications to the Facility to produce disinfected tertiary recycled wastewater. The issuance of a permit to an existing facility involving negligible or no expansion on an existing use is categorically exempt from CEQA under CEQA Guidelines, title 14 Code of California Regulations section 15301.

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

1. **Water Quality Control Plan.** The Central Coast Water Board adopted the *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean**.** Requirements in this Order implement the Basin Plan.

   Beneficial uses applicable to the coastal waters between Coal Oil Point and Rincon Point are as follows:

Table F-9. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Coastal Waters from Coal Oil Point to Rincon Point	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. **Thermal Plan.** The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters.

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

The California Ocean Plan defines elevated temperature wastes as:

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

Requirements of this Order implement the Thermal Plan.

3. **California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, 2015 and 2019. The State Water Board adopted the latest amendment on August 7, 2018, and it became effective on February 4, 2019, when approved by U.S. EPA. 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-10. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	Industrial water supply; Water contact and non-contact recreation, including aesthetic enjoyment; Navigation; Commercial and sport fishing; Mariculture; Preservation and enhancement of designated Areas of Special Biological Significance; Rare and endangered species; Marine habitat; Fish spawning and shellfish harvesting

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. The Ocean Plan supports the use of ocean water as a reliable supplement to traditional water supplies while protecting marine life and water quality. The Ocean Plan also includes receiving water limitations for salinity that are applicable to all desalination facilities discharging brine into ocean waters, including facilities that commingle brine and wastewater. Requirements of this Order implement the Ocean Plan.

4. **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 No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The 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 No. 68-16.

5. **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.

6. **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.

7. **Water Code section 13142.5(b) Requirements.** The Ocean Plan addresses effects associated with the construction and operation of seawater desalination facilities and associated intakes and requires the Central Coast Water Board to conduct a Water Code section 13142.5(b) analysis of all new and expanded desalination facilities to determine whether the best available site, design, technology, and mitigation measures feasible will be used to minimize the intake and mortality of all forms of marine life. Based on the best available science, the Ocean Plan identifies preferred technologies; however, alternative intake and disposal methods can be used if demonstrated to be as protective of marine life as the preferred technologies. Additionally, mitigation measures are required in order to address damage to marine life that occurs after the best available site, design, and technology feasible are used. Order No. R3-2010-0011, as amended, has regulated the Facility and includes the Central Coast Water Board's determination of the best site, design, technology, and mitigation measures feasible, pursuant to Water Code section 13142.5(b). The Facility is an existing desalinization facility as defined by the Ocean Plan and complies with all requirements of CWC section 13142.5(b).

8. **Water Code section 13267 Requirements.** The technical and monitoring reports for recycled water in this Order are required in accordance with Water Code section 13267, which states the following in subsection (b)(1), "In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports."

   The Discharger owns the Facility subject to this Order. The recycled water monitoring and reporting requirements are necessary to determine compliance with this Order. The burden and cost of preparing the reports is reasonable and consistent with the interest of the state in maintaining water quality and developing alternative water supplies to increase water resiliency.

D. Impaired Water Bodies on the CWA section 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 section 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 for point sources and load allocations for non-point sources.

The Pacific Ocean at the Santa Barbara Channel is not identified as impaired on the state's 2014-2016 section 303 (d) list of impaired water bodies, which was approved by U.S. EPA on April 06, 2018.

E. Other Plans, Polices and Regulations

1. **Discharges of Storm Water.** For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, the Order requires, if applicable, the Discharger to seek authorization to discharge under and meet the requirements of the State Water Resources Control Board's Water Quality Order 2014-0057-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

2. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Water Quality Order 2006-0003-DWQ).** Water Quality Order 2006-0003-DWQ, 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 or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of Water Quality Order 2006-0003-DWQ 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.

3. **State Water Board Recycled Water Policy and State Board Order WQ 2019-0037-EXEC.** The Recycled Water Policy was approved by the State Water Board on December 11, 2018, and became effective on April 8, 2019. The purpose of the Recycled Water Policy is to encourage the safe use of recycled water in a manner that is protective of public health and the environment. State Board Order WQ 2019-0037-EXEC implements the Recycled Water Policy by amending the monitoring and reporting programs (MRPs) for dischargers subject to National Pollutant Discharge Elimination System (NPDES) permits, waste discharge requirements (WDRs), master recycling permits, and water reclamation requirements (WRRs) to require annual reporting of volumetric data on wastewater and, if applicable, recycled water use by volume and category of reuse. Under State Board Order WQ-2019-0037-EXEC, the regional boards are expected to reissue or otherwise amend MRPs to incorporate the requirements of State Board Order WQ 2019-0037-EXEC.

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 to a Pacific Ocean at a location other than as described in this Order is prohibited.). This Order authorizes a single, specific point of discharge to the Pacific Ocean. This prohibition reflects CWA section 402's prohibition

against discharges of pollutants except in compliance with the act's permit requirements, effluent limitations, and other enumerated provisions. This prohibition is also retained from the previous permit.

2. **Discharge Prohibition III. B** (Discharges in a manner except as described by this Order are prohibited). Because limitations and conditions of this Order have been prepared based on specific information provided by the Discharger and specific wastes described by the Discharger, the limitations and conditions of this Order do not adequately address waste streams not contemplated during drafting of this Order. To prevent the discharge of such waste streams that may be inadequately regulated, this Order prohibits the discharge of any waste that was not described by the Discharger to the Central Coast Water Board during the process of permit reissuance.

3. **Discharge Prohibition III. C** (The dry weather average monthly rate of discharge from the Water Resource Center shall not exceed 11 MGD. The average monthly rate of discharged from the desalination facility shall not exceed 12.5 MGD when the desalination facility is operational.) This prohibition is retained from the previous permit and reflects the current design treatment capacity of the Facility. The prohibition ensures that the influent flow will not exceed the Facility's hydraulic and treatment capacity.

4. **Discharge Prohibition III. D** (Discharges of radiological, chemical, or biological warfare agent or high-level radioactive waste to the Ocean is prohibited). This prohibition has been retained from the previous Order and is consistent with section III.I.1 of the Ocean Plan.

5. **Discharge Prohibition III. E** (Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited.) This prohibition reflects the prohibition in Chapter III.I.3 of the Ocean Plan.

6. **Discharge Prohibition III. F** (The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G.2 (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. section 122.41(m) or an unauthorized discharge, which poses a threat to human health or aquatic life, and therefore, is explicitly prohibited by this Order.

7. **Discharge Prohibition III.G.** (Materials and substances that are prohibited). This prohibition has been retained from the previous Order and reflects water quality objectives at Chapter II.C the Ocean Plan.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Where U.S. EPA has not yet developed technology-based standards for a particular industry or a particular pollutant, CWA Section 402(a)(1) and U.S. EPA regulations at 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 C.F.R. section 125.3.

a. **BOD_5 and TSS.** Federal Regulations, 40 C.F.R. part 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD_5 and TSS. A daily maximum effluent limitation for BOD_5 and TSS is also included in the Order for the secondary treated wastewater on the basis of BPJ to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. In addition, 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. Effluent limitations for $CBOD_5$ may be established in lieu of the parameter BOD_5 as specified in 40 C.F.R. section 133.102(a). Consistent with the Order R3-2010-0011, this Order establishes effluent limitations for $CBOD_5$ in lieu of BOD_5.

   Consistent with 40 C.F.R. section 133.102, this Order contains a limitation requiring an average of 85 percent removal of $CBOD_5$ and TSS over each calendar month.

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

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

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

Table F-11. Secondary Treatment Requirements

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
$CBOD_5$[1]	mg/L	25	40	75
TSS[1]	mg/L	1.0	1.5	3.0
pH	standard units	6.0 to 9.0 at all times		

[1] The monthly average percent removal, by concentration, is not to be less than 85 percent.

c. Table 4 of the Ocean Plan establishes technology-based requirements, applicable to POTWs and industrial discharges for which Effluent Limitations Guidelines have not been established. The Table 4 Ocean Plan effluent limitations are summarized below:

Table F-12. Table 4 Effluent Limitations

Parameter	Units	30-Day Average	7-Day Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225

Table 4 of the Ocean Plan establishes effluent limitations for pH, which require pH to be within 6.0 and 9.0 pH units at all times. Further, Table 4 establishes a 75 percent minimum removal requirement for suspended solids, unless the effluent limitation is less than 60 mg/L.

The effluent limitations contained in Table 4 of the Ocean Plan are applicable to the combined discharge of POTW wastewater and desalination brine from the Facility.

Because desalination brine is not treated and contains no suspended solids, a 75 percent removal of suspended solids is not applicable for the combined discharge of secondary treated wastewater and desalination brine. However, as discussed above, a percent removal of 85 percent is required for the secondary treated wastewater from the Facility as well as for combined discharges of wastewater and supplemental desalination flows.

2. Applicable Technology-Based Effluent Limitations

Title 40 C.F.R. section 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 C.F.R. section 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. section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration and mass limitations are not necessary to protect the beneficial uses of the receiving water.

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

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

Effluent limitations established in the permit based on Table 4 of the Ocean Plan are not required to be applied to individual wastewaters and may be applied at end-of-pipe similar to water quality-based effluent limitations. Thus, effluent limitations based on Table 4 of the Ocean Plan are applicable to the total wastewater discharged (secondary treated wastewater and brine from the desalination facility).

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

Table F-13. Technology-Based Effluent Limitations for Secondary Treated Wastewater

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

[1] The average monthly percent removal of $CBOD_5$ and TSS shall not be less than 85 percent.
[2] Per 40 C.F.R. 133.102, this Order substitutes $CBOD_5$ effluent limits in place of five-day biochemical oxygen demand (BOD_5) effluent limits.

Table F-14. Technology-Based Effluent Limitations for Commingled Secondary Treated Wastewater and Desalination Brine

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
Oil and Grease	mg/L	25	40	75
pH	standard units	6.0 – 9.0 at all times		

C. Water Quality-Based Effluent Limitations (WQBELs)

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, 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 sections III.C.1 and III.C.3, respectively, of the Fact Sheet. The water quality objectives (WQOs) from the Ocean Plan are incorporated as receiving water limitations into this Order.

Water quality objectives applicable to ocean waters of the Central Coast Region include water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. In addition, Table 3 of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 C.F.R. section 122.44(d)(1) and in accordance with procedures established by the Ocean Plan, the Central Coast Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table 3 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 (RPcalc 2.2), which is available at:

http://www.swrcb.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 ML (the mean of the natural log of transformed data) and SL (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.

An RPA was conducted for the Facility using effluent monitoring data reported by the Discharger between May 2010 and September 2018. The implementation provisions for Table 3 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 R3-2010-0011 established minimum initial dilution factors (Dm) of 120 to 1 (seawater to effluent) for solely POTW effluent and 44 to 1 (seawater to effluent) for POTW effluent commingled with desalination brine. The Dm of 44 to 1 is achieved within 59 meters in the absence of any currents. Section III.M.3 of the Ocean Plan requires that the mixing zone for salinity be based on 100 meters or initial dilution, whichever is smaller. Thus, a brine mixing zone consistent with the zone of initial dilution at 59 meters from the point of discharge has been established. The Dm of 120:1 without brine discharge and 44:1 with brine discharge are retained from this Order and applied to the WQBELs established herein. Separate RPAs were conducted for the discharge when desalination brine is not being commingled with POTW effluent (Monitoring Locations EFF-001A and M-001) and commingled discharge (Monitoring Location EFF-001B).

A summary of the RPA results is provided below. As shown in the tables, due to insufficient data, the RPA frequently leads to Endpoint 3 meaning that the RPA was inconclusive. In these circumstances, the Ocean Plan requires that existing effluent limitations for those pollutants (for which the RPA is inconclusive) remain in the reissued permit. When the RPA leads to Endpoint 2 meaning there is no reasonable potential for that pollutant, the limit has been removed for this permit term.

When using all available data for the past permit term, the RPA displayed "reasonable potential," indicated by a result of Endpoint 1, for silver, total chlorine residual, chronic toxicity, heptachlor, and heptachlor epoxide at when desalination brine was not being commingled with treated wastewater (Table F-15), and for selenium, total chlorine residual, and acute toxicity when desalination brine was being commingled with treated wastewater (Table F-16). RPA results that did not result in Endpoint 3 are bolded in the following tables.

Table F-15. RPA Results When Not Discharging Desalination Brine (120:1 Dilution Ratio)

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Objectives for Protection of Marine Aquatic Life					
Arsenic, Total Recoverable	8	14	6	23	**Endpoint 2 – Effluent limitation not required.**
Cadmium, Total Recoverable	1	14	14	<0.13	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (VI), Total Recoverable	2	8	7	0.32	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Copper, Total Recoverable	3	14	0	91	**Endpoint 2 – Effluent limitation not required.**
Lead, Total Recoverable	2	14	4	5.9	**Endpoint 2 – Effluent limitation not required.**
Mercury, Total Recoverable	0.04	14	14	<0.045	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nickel, Total Recoverable	5	14	0	8.2	**Endpoint 2 – Effluent limitation not required.**
Selenium, Total Recoverable	15	14	7	4.1	**Endpoint 2 – Effluent limitation not required.**
Silver, Total Recoverable	0.7	14	11	34	**Endpoint 1 – Effluent limitation is necessary.**
Zinc, Total Recoverable	20	14	0	475	**Endpoint 2 – Effluent limitation not required.**
Cyanide, Total	1	8	8	<7.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Total Chlorine Residual	2	3,076	0	676	**Endpoint 1 – Effluent limitation is necessary.**
Ammonia (expressed as nitrogen)	600	2,778	2	64,200	**Endpoint 2 – Effluent limitation not required.**
Acute Toxicity[5]	0.3	23	0	2.2	**Endpoint 2 – Effluent limitation not required.**
Chronic Toxicity[6]	1	15	0	31	**Endpoint 1 – Effluent limitation is necessary.**
Non-Chlorinated Phenolics	30	27	22	630	**Endpoint 2 – Effluent limitation not required.**
Chlorinated Phenolics	1	27	27	<1.9	**Endpoint 2 – Effluent limitation not required.**
Endosulfan	0.009	8	8	<0.0047	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Endrin	0.002	8	8	<0.0047	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
HCH	0.004	8	7	0.027	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Radioactivity	---	---	---	---	---
Objectives for Protection of Human Health – Non-Carcinogens					
Acrolein	220	8	8	<3.8	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Antimony, Total Recoverable	1,200	8	2	2.2	**Endpoint 2 – Effluent limitation not required.**
Bis(2-chloroethoxy) Methane	4.4	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Bis(2-chloroisopropyl) Ether	1,200	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND
Chlorobenzene	570	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (III), Total Recoverable	190,000	8	6	2.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Di-n-butyl Phthalate	3,500	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobenzenes	5,100	8	8	<0.48	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Diethyl Phthalate	33,000	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dimethyl Phthalate	820,000	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
4,6-dinitro-2-methylphenol	220	8	8	<4.7	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-dinitrophenol	4	8	8	<3.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Ethylbenzene	4,100	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Fluoranthene	15	8	8	<0.05	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorocyclopentadiene	58	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nitrobenzene	4.9	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Thallium	2	8	6	2.1	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toluene	85,000	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tributyltin	0.0014	19	18	0.035	**Endpoint 2 – Effluent limitation not required.**
1,1,1-trichloroethane	540,000	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Objectives for Protection of Human Health – Carcinogens					
Acrylonitrile	0.1	8	8	<2	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Aldrin	0.000022	8	8	<0.0047	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzene	5.9	8	8	<0.50	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzidine	0.000069	8	8	<4.7	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Beryllium, Total Recoverable	0.033	8	8	<0.50	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-chloroethyl) Ether	0.045	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-ethlyhexyl) Phthalate	3.5	8	7	7	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Carbon Tetrachloride	0.9	8	8	<0.2	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlordane	0.000023	8	8	<0.097	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorodibromomethane	8.6	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chloroform	130	8	1	2.7	**Endpoint 2 – Effluent limitation not required.**
DDT	0.000017	8	7	0.066	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,4-dichlorobenzene	18	8	8	<0.40	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
3,3'-dichlorobenzidine	0.0081	8	8	<2.5	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-dichloroethane	28	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1-dichloroethylene	0.9	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Dichlorobromomethane	6.2	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichloromethane (Methylene Chloride)	450	8	7	3.3	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,3-dichloropropene	8.9	9	9	<0.2	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dieldrin	0.00004	8	8	<0.0047	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-dinitrotoluene	2.6	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-diphenylhydrazine	0.16	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Halomethanes	130	3	2	2.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Heptachlor	0.00005	9	6	11	**Endpoint 1 – Effluent limitation is necessary.**
Heptachlor Epoxide	0.00002	8	7	0.014	**Endpoint 1 – Effluent limitation is necessary.**
Hexachlorobenzene	0.00021	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorobutadiene	14	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachloroethane	2.5	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Isophorone	730	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-nitrosodimethylamine	7.3	8	3	39	**Endpoint 2 – Effluent limitation not required.**
N-nitrosodi-N-propylamine	0.38	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-nitrosodiphenylamine	2.5	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
PAHs	0.0088	8	8	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
PCBs	0.000019	8	8	<0.10	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
TCDD Equivalents	3.9E-09	8	3	1.3E-06	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,2,2-tetrachloroethane	2.3	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tetrachloroethylene (Tetrachloroethene)	2	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toxaphene	0.00021	8	8	<0.47	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Trichloroethylene	27	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,2-trichloroethane	9.4	8	8	<0.4	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4,6-trichlorophenol	0.29	8	8	<0.94	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Vinyl Chloride	36	7	7	<0.2	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

[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.
[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] Reported as acute toxicity units (TUa).
[6] Reported as chronic toxicity units (TUc).

Table F-16. RPA Results When Discharging Commingled Treated Wastewater and Desalination Brine (44:1 Dilution Ratio)

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Objectives for Protection of Marine Aquatic Life					
Arsenic, Total Recoverable	8	3	2	3.1	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Cadmium, Total Recoverable	1	3	3	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Chromium (VI), Total Recoverable	2	3	2	22	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Copper, Total Recoverable	3	3	0	12	**Endpoint 2 – Effluent limitation not required.**
Lead, Total Recoverable	2	3	3	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Mercury, Total Recoverable	0.04	3	3	<0.2	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nickel, Total Recoverable	5	3	2	16	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Selenium, Total Recoverable	15	3	0	120	**Endpoint 1 – Effluent limitation is necessary.**
Silver, Total Recoverable	0.7	3	3	<1.0	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Zinc, Total Recoverable	20	3	1	108	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Cyanide, Total	1	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Total Chlorine Residual	2	592	545	540	**Endpoint 1 – Effluent limitation is necessary.**
Ammonia (expressed as nitrogen)	0.6	3	0	30	**Endpoint 2 – Effluent limitation not required.**
Acute Toxicity[5]	0.3	5	0	0.94	**Endpoint 1 – Effluent limitation is necessary.**
Chronic Toxicity[6]	1	3	0	18	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Non-Chlorinated Phenolics	30	7	7	<100	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorinated Phenolics	1	7	7	<24	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Endosulfan	0.009	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Endrin	0.002	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
HCH	0.004	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Radioactivity	---	---	---	---	---

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Objectives for Protection of Human Health – Non-Carcinogens					
Acrolein	220	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Antimony, Total Recoverable	1,200	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-chloroethoxy) Methane	4.4	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-chloroisopropyl) Ether	1,200	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorobenzene	570	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (III), Total Recoverable	190,000	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Di-n-butyl Phthalate	3,500	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobenzenes	5,100	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Diethyl Phthalate	33,000	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dimethyl Phthalate	820,000	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
4,6-dinitro-2-methylphenol	220	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-dinitrophenol	4	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Ethylbenzene	4,100	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Fluoranthene	15	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorocyclopentadiene	58	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Nitrobenzene	4.9	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
Thallium	2	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toluene	85,000	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tributyltin	0.0014	5	5	<0.003	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,1-trichloroethane	540,000	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Objectives for Protection of Human Health – Carcinogens					
Acrylonitrile	0.10	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Aldrin	0.000022	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzene	5.9	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Benzidine	0.000069	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Beryllium, Total Recoverable	0.033	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-chloroethyl) Ether	0.045	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Bis(2-ethlyhexyl) Phthalate	3.5	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Carbon Tetrachloride	0.9	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlordane	0.000023	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chlorodibromomethane	8.6	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chloroform	130	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
DDT	0.00017	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
1,4-dichlorobenzene	18	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
3,3'-dichlorobenzidine	0.0081	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-dichloroethane	28	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1-dichloroethylene	0.9	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobromomethane	6.2	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichloromethane (Methylene Chloride)	450	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,3-dichloropropene	8.9	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dieldrin	0.00004	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4-dinitrotoluene	2.6	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,2-diphenylhydrazine	0.16	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Halomethanes	130	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Heptachlor	0.00005	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Heptachlor Epoxide	0.00002	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorobenzene	0.00021	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachlorobutadiene	14	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Hexachloroethane	2.5	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Isophorone	730	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2][3]	RPA Result/Comment[4]
N-nitrosodimethylamine	7.3	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-nitrosodi-N-propylamine	0.38	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
N-nitrosodiphenylamine	2.5	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
PAHs	0.0088	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
PCBs	0.000019	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
TCDD Equivalents	3.9E-09	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,2,2-tetrachloroethane	2.3	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Tetrachloroethylene (Tetrachloroethene)	2	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Toxaphene	0.00021	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Trichloroethylene	27	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
1,1,2-trichloroethane	9.4	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
2,4,6-trichlorophenol	0.29	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Vinyl Chloride	36	---	---	---	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.

[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.
[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] Reported as acute toxicity units (TUa).
[6] Reported as chronic toxicity units (TUc).

4. WQBEL Calculations

Based on results of the RPA, the Central Coast Water Board is establishing WQBELs during periods when there is no desalination brine discharge (solely POTW effluent), and WQBELs during periods of combined discharge. The WQBELs applicable during periods with no desalination brine discharge were calculated based on a dilution factor of 120:1. WQBELs for combined discharges were calculated based on a dilution factor of 44:1.

a. **POTW Discharge (Dilution of 120:1).** Based on results of the RPA for POTW discharges only, the Central Coast Water Board is establishing WQBELs for those parameters demonstrating Endpoint 1: silver, total chlorine residual, chronic toxicity, heptachlor, and heptachlor epoxide. WQBELS established in the previous order for those parameters demonstrating Endpoint 3 were retained and WQBELS established in the previous order for those parameters demonstrating Endpoint 2 were removed in accordance with anti-backsliding and antidegradation requirements, discussed in sections IV.D.1 and IV.D.2 of this Fact Sheet.

b. **Combined Discharge (Dilution of 44:1).** Based on results of the RPA for POTW discharges only, the Central Coast Water Board is establishing WQBELs for those parameters demonstrating Endpoint 1: selenium, total chlorine residual, and acute toxicity. WQBELS established in the previous order for those parameters demonstrating Endpoint 3 were retained and WQBELS established in the previous order for those parameters demonstrating Endpoint 2 were removed in accordance with anti-backsliding and antidegradation requirements, discussed in sections IV.D.1 and IV.D.2 of this Fact Sheet.

As described by Section III. C of the Ocean Plan, effluent limitations for Table 3 pollutants are calculated according to the following equation.

$Ce = Co + Dm (Co – Cs)$

Where

Ce = the effluent limitation (µg/L)

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

Cs = background seawater concentration (µg/L)

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 120 without brine discharge, and 44 for the combined discharge)

Table 5 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-17. Background Concentrations (Cs) – Ocean Plan (Table 5)

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

Table F-18. Water Quality Objectives (C_o) – Ocean Plan (Table 3) Objectives for Protection Aquatic Life

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	µg/L	8	32	80
Cadmium	µg/L	1	4	10
Chromium (VI)	µg/L	2	8	20
Copper	µg/L	3	12	30
Lead	µg/L	2	8	20
Mercury	µg/L	0.04	0.16	0.4
Nickel	µg/L	5	20	50
Selenium	µg/L	15	60	150
Silver	µg/L	0.7	2.8	7
Zinc	µg/L	20	80	200
Cyanide	µg/L	1	4	10
Total Chlorine Residual	µg/L	2	8	60
Ammonia (expressed as nitrogen)	µg/L	600	2,400	6,000
Acute Toxicity	TUa	---	0.3	N/A
Chronic Toxicity	TUc	---	1	N/A
Non-Chlorinated Phenolics	µg/L	30	120	300
Chlorinated Phenolics	µg/L	1	4	10
Endosulfan	µg/L	0.009	0.018	0.027
Endrin	µg/L	0.002	0.004	0.006
HCH	µg/L	0.004	0.008	0.012
Radioactivity	µg/L	---	---	---

Table F-19. Water Quality Objectives (C_o) –Ocean Plan (Table 3) Objectives for Protection of Human Health

Pollutant	Units	30-Day Average
Non-Carcinogens		
Acrolein	µg/L	220
Antimony	µg/L	1,200
Bis(2-Chloroethoxy) Methane	µg/L	4.4
Bis(2-Chloroisopropyl) Ether	µg/L	1,200
Chlorobenzene	µg/L	570
Chromium (III)	µg/L	190,000
Di-n-butyl Phthalate	µg/L	3,500
Dichlorobenzenes	µg/L	5,100
Diethyl Phthalate	µg/L	33,000
Dimethyl Phthalate	µg/L	820,000
2-methyl-4,6-dinitrophenol	µg/L	220
2,4-dinitrophenol	µg/L	4.0
Ethylbenzene	µg/L	4,100

Pollutant	Units	30-Day Average
Fluoranthene	µg/L	15
Hexachlorocyclopentadiene	µg/L	58
Nitrobenzene	µg/L	4.9
Thallium	µg/L	2
Toluene	µg/L	85,000
Tributyltin	µg/L	0.0014
1,1,1-trichloroethane	µg/L	540,000
Carcinogens		
Acrylonitrile	µg/L	0.10
Aldrin	µg/L	0.000022
Benzene	µg/L	5.9
Benzidine	µg/L	0.000069
Beryllium	µg/L	0.033
Bis(2-Chloroethyl) Ether	µg/L	0.045
Bis(2-Ethylhexyl) Phthalate	µg/L	3.5
Carbon Tetrachloride	µg/L	0.90
Chlordane	µg/L	0.000023
Chlorodibromomethane	µg/L	8.6
Chloroform	µg/L	130
DDT	µg/L	0.00017
1,4 dichlorobenzene	µg/L	18
3,3'-dichlorobenzidine	µg/L	0.0081
1,2-dichloroethane	µg/L	28
1,1-dichloroethylene	µg/L	0.9
Dichlorobromomethane	µg/L	6.2
Dichloromethane	µg/L	450
1,3-dichloropropylene	µg/L	8.9
Dieldrin	µg/L	0.00004
2,4-dinitrotoluene	µg/L	2.6
1,2-diphenylhydrazine	µg/L	0.16
Halomethanes	µg/L	130
Heptachlor	µg/L	0.00005
Heptachlor Epoxide	µg/L	0.00002
Hexachlorobenzene	µg/L	0.00021
Hexachlorobutadiene	µg/L	14
Hexachloroethane	µg/L	2.5
Isophorone	µg/L	730
N-nitrosodimethylamine	µg/L	7.3
N-nitrosodi-N-propylamine	µg/L	0.38
N-nitrosodiphenylamine	µg/L	2.5
PAHs	µg/L	0.0088
PCBs	µg/L	0.000019
TCDD Equivalents	µg/L	0.0000000039
1,1,2,2-tetrachloroethane	µg/L	2.3

Pollutant	Units	30-Day Average
Tetrachloroethylene	µg/L	2
Toxaphene	µg/L	0.00021
Trichloroethylene	µg/L	27
1,1,2-trichloroethane	µg/L	9.4
2,4,6-trichlorophenol	µg/L	0.29
Vinyl Chloride	µg/L	36

Effluent limitations are calculated using the equation Ce = Co + Dm (Co – Cs) as outlined above. For example, the effluent limitations for copper are calculated under the no brine discharge scenario as follows (all limits calculated are expressed with two significant digits).

Copper

C_e = 3+120 (3–2) = 120 µg/L (6-Month Median)

C_e = 12+120 (12–2) = 1,200 µg/L (Daily Maximum)

C_e = 30+120 (30–2) = 3,400 µg/L (Instantaneous Maximum)

Chronic Toxicity

C_e = 1 + 120 (1 - 0) = 120 TUc (Daily Maximum)

Acute Toxicity

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

$C_e = C_o + (0.1)\ Dm\ (Co)$

Where C_o equals 0.3 and Dm equals 120, the effluent limitation for acute toxicity is 36 TUa.

Table F-20. Effluent Limitations for the Protection of Marine Aquatic Life – When Not Discharging Desalination Brine

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Cadmium, Total Recoverable	µg/L	120	480	1,200
Chromium (VI), Total Recoverable[4]	µg/L	240	970	2,400
Mercury, Total Recoverable	µg/L	4.8	19	48
Silver, Total Recoverable	µg/L	67	320	830
Cyanide, Total[5]	µg/L	120	480	1,200
Total Chlorine Residual[6]	µg/L	240	970	7,300
Chronic Toxicity	TUc	---	120	---
Endosulfan	µg/L	1.1	2.2	3.3
Endrin	µg/L	0.24	0.48	0.73
HCH	µg/L	0.48	0.97	1.5

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

[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 to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[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 Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

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

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

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

Table F-21. Effluent Limitations for the Protection of Human Health – When Not Discharging Desalination Brine

Parameter	Units	30-Day Average
Non-Carcinogens		
Acrolein	µg/L	27,000
Bis(2-chloroethoxy) Methane	µg/L	530
Bis(2-chloroisopropyl) Ether	µg/L	150,000
Chlorobenzene	µg/L	69,000
Chromium (III), Total Recoverable	µg/L	23,000,000
Di-n-butyl Phthalate	µg/L	420,000
Dichlorobenzenes[1]	µg/L	620,000
Diethyl Phthalate	µg/L	4,000,000
Dimethyl Phthalate	µg/L	99,000,000
4,6-dinitro-2-methylphenol	µg/L	27,000
2,4-dinitrophenol	µg/L	480
Ethylbenzene	µg/L	500,000
Fluoranthene	µg/L	1,800
Hexachlorocyclopentadiene	µg/L	7,000
Nitrobenzene	µg/L	590
Thallium, Total Recoverable	µg/L	240
Toluene	µg/L	10,000,000

Parameter	Units	30-Day Average
1,1,1-trichloroethane	µg/L	65,000,000
Carcinogens		
Acrylonitrile	µg/L	12
Aldrin	µg/L	0.0027
Benzene	µg/L	710
Benzidine	µg/L	0.0083
Beryllium, Total Recoverable	µg/L	4
Bis(2-chloroethyl) Ether	µg/L	5.4
Bis(2-ethlyhexyl) Phthalate	µg/L	420
Carbon Tetrachloride	µg/L	110
Chlordane[2]	µg/L	0.0028
Chlorodibromomethane	µg/L	1,000
DDT[3]	µg/L	0.021
1,4-dichlorobenzene	µg/L	2,200
3,3'-dichlorobenzidine	µg/L	0.98
1,2-dichloroethane	µg/L	3,400
1,1-dichloroethylene	µg/L	110
Dichlorobromomethane	µg/L	750
Dichloromethane (Methylene Chloride)	µg/L	54,000
1,3-dichloropropene	µg/L	1,100
Dieldrin	µg/L	0.0048
2,4-dinitrotoluene	µg/L	310
1,2-diphenylhydrazine	µg/L	19
Halomethanes[4]	µg/L	16,000
Heptachlor	µg/L	0.006
Heptachlor Epoxide	µg/L	0.0024
Hexachlorobenzene	µg/L	0.025
Hexachlorobutadiene	µg/L	1,700
Hexachloroethane	µg/L	300
Isophorone	µg/L	88,000
N-nitrosodi-N-propylamine	µg/L	46
N-nitrosodiphenylamine	µg/L	300
PAHs[5]	µg/L	1.1
PCBs[6]	µg/L	0.0023
TCDD Equivalents[7]	µg/L	0.00000047
1,1,2,2-tetrachloroethane	µg/L	280
Tetrachloroethylene (Tetrachloroethene)	µg/L	240
Toxaphene	µg/L	0.025
Trichloroethylene	µg/L	3,300
1,1,2-trichloroethane	µg/L	1,100
2,4,6-trichlorophenol	µg/L	35
Vinyl Chloride	µg/L	4,400

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

[2] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4'DDE; 2,4'DDE; 4,4'DDD; and 2,4'DDD.
[4] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).
[5] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.
[6] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

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

Table F-22. Effluent Limitations for the Protection of Marine Aquatic Life – When Discharging Commingled Treated Wastewater and Desalination Brine

Parameter	Units	Effluent Limitation		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Arsenic, Total Recoverable	µg/L	228	1,308	3,468
Cadmium, Total Recoverable	µg/L	45	180	450
Chromium (VI), Total Recoverable[4]	µg/L	90	360	900
Lead, Total Recoverable	µg/L	90	360	900
Mercury, Total Recoverable	µg/L	1.8	7.2	18
Nickel, Total Recoverable	µg/L	225	900	2,250
Selenium, Total Recoverable	µg/L	675	2,700	6,750
Silver, Total Recoverable	µg/L	24	120	310
Zinc, Total Recoverable	µg/L	550	3,200	8,600
Cyanide, Total[5]	µg/L	45	180	450
Total Chlorine Residual[6]	µg/L	90	360	2,700
Acute Toxicity	µg/L	---	1.62	---
Chronic Toxicity	µg/L	---	45	---

Parameter	Units	Effluent Limitation		
		6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum[3]
Non-Chlorinated Phenolics	µg/L	1,350	5,400	13,500
Chlorinated Phenolics	µg/L	45	180	450
Endosulfan	µg/L	0.41	0.81	1.2
Endrin	µg/L	0.09	0.18	0.27
HCH	µg/L	0.18	0.36	0.54
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

[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 to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[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 Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

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

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

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by Standard Methods 412F, G, and H (Standard Methods for the Examination of Water and Wastewater).

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

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

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

Table F-23. Effluent Limitations for the Protection of Human Health – When Discharging Commingled Treated Wastewater and Desalination Brine

Parameter	Units	30-Day Average
Non-Carcinogens		
Acrolein	µg/L	9,900
Antimony, Total Recoverable	µg/L	54
Bis(2-chloroethoxy) Methane	µg/L	200
Bis(2-chloroisopropyl) Ether	µg/L	54,000
Chlorobenzene	µg/L	26,000
Chromium (III), Total Recoverable	µg/L	8,600,000
Di-n-butyl Phthalate	µg/L	160,000
Dichlorobenzenes[1]	µg/L	230,000
Diethyl Phthalate	µg/L	1,500,000
Dimethyl Phthalate	µg/L	37,000,000
4,6-dinitro-2-methylphenol	µg/L	9,900

Parameter	Units	30-Day Average
2,4-dinitrophenol	µg/L	180
Ethylbenzene	µg/L	180,000
Fluoranthene	µg/L	680
Hexachlorocyclopentadiene	µg/L	2,600
Nitrobenzene	µg/L	220
Thallium, Total Recoverable	µg/L	90
Toluene	µg/L	3,800,000
Tributyltin	µg/L	0.06
1,1,1-trichloroethane	µg/L	24,000,000
Carcinogens		
Acrylonitrile	µg/L	4.5
Aldrin	µg/L	0.001
Benzene	µg/L	270
Benzidine	µg/L	0.003
Beryllium, Total Recoverable	µg/L	1.5
Bis(2-chloroethyl) Ether	µg/L	2
Bis(2-ethlyhexyl) Phthalate	µg/L	160
Carbon Tetrachloride	µg/L	41
Chlordane[2]	µg/L	0.001
Chlorodibromomethane	µg/L	390
Chloroform	µg/L	5,850
DDT[3]	µg/L	0.0076
1,4-dichlorobenzene	µg/L	810
3,3'-dichlorobenzidine	µg/L	0.36
1,2-dichloroethane	µg/L	1,300
1,1-dichloroethylene	µg/L	41
Dichlorobromomethane	µg/L	280
Dichloromethane (Methylene Chloride)	µg/L	20,000
1,3-dichloropropene	µg/L	400
Dieldrin	µg/L	0.0018
2,4-dinitrotoluene	µg/L	120
1,2-diphenylhydrazine	µg/L	7.2
Halomethanes[4]	µg/L	5,900
Heptachlor	µg/L	0.0023
Heptachlor Epoxide	µg/L	0.0009
Hexachlorobenzene	µg/L	0.009
Hexachlorobutadiene	µg/L	630
Hexachloroethane	µg/L	110
Isophorone	µg/L	33,000
N-nitrosodimethylamine	µg/L	328.5
N-nitrosodi-N-propylamine	µg/L	17
N-nitrosodiphenylamine	µg/L	110
PAHs[5]	µg/L	0.40
PCBs[6]	µg/L	0.00086

Parameter	Units	30-Day Average
TCDD Equivalents[7]	µg/L	0.00000018
1,1,2,2-tetrachloroethane	µg/L	100
Tetrachloroethylene (Tetrachloroethene)	µg/L	90
Toxaphene	µg/L	0.0095
Trichloroethylene	µg/L	1,200
1,1,2-trichloroethane	µg/L	420
2,4,6-trichlorophenol	µg/L	13
Vinyl Chloride	µg/L	1,600

[1] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.
[2] Chlordane shall mean the sum of chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4'DDE; 2,4'DDE; 4,4'DDD; and 2,4'DDD.
[4] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride). Based on data for 2010, 2011, and 2012. Missing data for 2013, 2014, and 2015.
[5] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.
[6] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

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

5. Bacteria

Effluent limitations for total coliform organisms have been established based on beneficial uses of the receiving water and shellfish harvesting standards in section II.B.2 of the Ocean Plan. Although the Ocean Plan typically establishes a 30-day time period for certain water quality standards, the total coliform effluent limitation has been established based on a monthly time period. This time period is similar to a 30-day time period and allows the discharger to more easily determine compliance. The monthly time period is similar to frequencies established by U.S. EPA for secondary treatment standards for BOD_5 and TSS.

Effluent limitations have also been established for fecal coliform and enterococcus based on the bacterial standards in section II.1.a.(1) of the 2019 Ocean Plan. Bacteria effluent limitations are necessary to ensure the proper functioning of the Facility's disinfection

system, and to protect the beneficial uses of the receiving water prescribed in the Basin Plan and in the Ocean Plan.

6. Salinity

The Ocean Plan section III.M.3 requires salinity receiving water limitations for all desalination facilities discharging brine into the ocean waters as follows:

(1) Discharges shall not exceed a daily maximum of 2.0 parts per thousand (ppt) above natural background salinity measured no further than 100 meters (328 ft.) horizontally from each discharge point. There is no vertical limit to this zone.

The Ocean Plan provides the following equation to be used in developing effluent limitations necessary to meet the receiving water limitation:

Ce = Co + Dm (2.0 ppt)

Where:

Ce = the effluent concentration limitation, ppt

Co = the salinity concentration to be met at the completion of initial dilution

= 2.0 ppt + Cs

Cs = the natural background salinity, ppt

Dm = minimum probable initial dilution expressed as parts seawater per part brine discharge

The Ocean Plan further specifies that in determining the minimum probable initial dilution for brine discharges, the fixed distance referenced in the initial dilution definition shall be no more than 100 meters (328 ft.). Using a Dm of 44, applicable to the combined discharge from the POTW and the brine discharge, the daily maximum effluent limitation equation is simplified as follows:

Ce = 2 ppt + Cs + 44 (2.0 ppt)

Ce = 90 ppt + Cs

The natural background salinity has been determined based on the average of 20 years of historical data at a representative reference site, REF-001. The long-term average surface salinity at the El Estero Water Resource Center discharge location is 33.5 ppt. Therefore, based on the above equation, the effluent limitation is 123.5 ppt. The maximum effluent concentration observed from the facility is 44.4 ppt, thus compliance with this WQBEL appears feasible on the effective date of this order.

7. Whole Effluent Toxicity (WET)

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

Central Coast Water Board staff has determined that treated wastewater from the Facility has a reasonable potential to cause or contribute to acute and/or chronic toxicity in the

discharge. Such a determination is consistent with the RPA procedure of the Ocean Plan which requires consideration of all available information, including the "potential toxic impact of the discharge" to determine if WQBELs are necessary, notwithstanding the statistical procedure with which the RPA is conducted for most pollutants. Due to the multiple residential, commercial, and industrial contributors to the influent flow of the Facility, and because the cumulative effects of various pollutants present at low levels in the discharge are unknown, acute and chronic toxicity limitations are retained from the previous permit.

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

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

The CWA specifies that a renewed permit may not include effluent limitations that are less stringent than the previous permit unless the less stringent limitations are justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l).

The Order retains effluent limitations established by the previous Order for $CBOD_5$, TSS, oil and grease, settleable solids, turbidity, and pH.

The Order also retains most of the effluent limitations from the previous Order for the Ocean Plan Table 3 pollutants. The Ocean Plan was amended in 2005 to include a procedure for determining “reasonable potential” by characterization of effluent monitoring data. The procedure described in Appendix VI of the Ocean Plan resulted in a finding of endpoint 2 (i.e., “no reasonable potential”) for ammonia, antimony, arsenic, acute toxicity, chlorinated phenolics, non-chlorinated phenolic compounds, chloroform, copper, lead, nickel, n-nitrosidomethylamine, selenium, tributyltin and zinc in the discharge when not discharging desalination brine; and Endpoint 2 for ammonia and copper in the commingled discharge when discharging desalination brine. Pollutants resulting in Endpoint 2 do not have reasonable potential to cause or contribute to an exceedance of waste quality standards, and effluent limitations are not required for those pollutants.

CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is now available that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and that would have justified the application of a less stringent effluent limitation at the time of permit issuance. The reasonable potential analyses conducted for ammonia, antimony, arsenic, acute toxicity, chlorinated phenolics, non-chlorinated phenolic compounds, chloroform, copper, lead, nickel, n nitrosidomethylamine, selenium, tributyltin and zinc in the discharge when not discharging desalination brine; and for ammonia and copper in the commingled discharge when discharging desalination brine resulted in new information not available at the time of permit issuance that would have justified a less stringent (i.e., no) effluent limitation at the time of permit issuance. The

removal of these effluent limitations from this Order is consistent with CWA section 402(o)(2) and anti-backsliding regulations.

All other Ocean Plan Table 3 pollutants resulted in an Endpoint 1 (i.e., "reasonable potential") or Endpoint 3 (i.e., "inconclusive"). Therefore, the limitations for these pollutants are retained in this Order. The Central Coast Water Board is also retaining WQBELs for acute toxicity when discharging commingled desalination brine effluent and chronic toxicity in all discharges, which are also pollutants or pollutant parameters identified by Table 3 of the Ocean Plan.

The previous Order's effluent limitations have also been updated to be consistent with mathematical calculations for the significant figures presented in the Ocean Plan's water quality objectives (i.e., two significant figures). This correction has resulted in relatively minor changes to several effluent limitations. No negative impacts to receiving water quality are anticipated as a result of these changes.

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 ensure maintenance of the existing quality of receiving waters; therefore, a complete antidegradation analysis is not necessary. The Order requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on $CBOD_5$, TSS, settleable solids, turbidity, oil and grease, and pH. Restrictions on these pollutants are discussed in section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These water quality-based limitations implement water quality objectives that protect beneficial uses, both of which have been approved by federal law and are the applicable federal water quality standards. The final effluent limitations are not more stringent than required by the CWA.

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

E. Interim Effluent Limitations

The Order does not establish interim effluent limitations and schedules for compliance with final limitations. Interim limitations are authorized only in certain circumstances when immediate compliance with newly established final water quality-based limitations is not feasible.

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications

The Order allows the production of disinfected tertiary recycled wastewater in compliance with applicable state and local requirements regarding the production and use of reclaimed wastewater, including those requirements established by the California Department of Public Health at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Criteria.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the discharge on the receiving water. Receiving water limitations within this Order generally include the receiving water limitations of the previous order; however, these limitations have been supplemented and modified to reflect all applicable, general water quality objectives of the Ocean Plan (2019).

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. sections 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 U.S. EPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order will be reopened to incorporate such limitations.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

The requirement to maintain a toxicity reduction work plan is retained from Order R3-2010-0011. When toxicity monitoring measures acute or chronic toxicity in the effluent above the limitation established by this Order, the Discharger is required to resample and retest, if the discharge is continuing. When all monitoring results are available, the Executive Officer can determine whether to initiate enforcement

action, whether to require the Discharger to implement toxicity reduction evaluation requirements or whether other measures are warranted.

b. **Desalination Monitoring and Reporting Plan**

The Ocean Plan section III.M.4 requires existing, new, and expanded Desalination Facilities to submit a Monitoring and Reporting Plan to monitor the effluent and receiving water characteristics and impacts to all forms of marine life. In accordance with the Ocean Plan, this Order requires the Discharger to submit a Monitoring and Reporting Plan within 180 days of the effective date of this Order. The monitoring and reporting plan shall address Discharge Point 001 and shall include the effluent and receiving water monitoring requirements contained in Attachment E to this Order and shall include additional monitoring, at a minimum, for benthic community health, aquatic life toxicity, hypoxia, and receiving water characteristics consistent with Appendix III of the Ocean Plan. In addition, the monitoring and reporting plan shall address compliance with the salinity receiving water limitation required in section III.M.3 of the Ocean Plan, implemented as effluent limitations in section IV.A.1 and a receiving water limitation in section V.A.7 of this Order. Receiving water monitoring for salinity shall be conducted at times when the monitoring locations are most likely affected by the discharge. Monitoring to demonstrate compliance with the salinity receiving water limitation shall include a salinity reference monitoring station as described in the following paragraph.

c. **Establishment of Salinity Reference Monitoring Station**

This Order includes receiving water limitations for salinity equal to 2 ppt above "*natural background salinity*", which is defined as "…*the salinity at a location that results from naturally occurring processes and is without apparent human influence.*" The Ocean Plan Appendix I Definitions section further describes two methods to determine natural background salinity. The first involves using existing receiving water concentrations of salinity to calculate and establish mean monthly natural background salinity. The second method is to use the actual salinity at a reference location. In the latter case, the reference location would include salinity data collected at approximately the same time as the effluent concentrations. This Order utilizes long term salinity monitoring data that has been compiled since 1949 by the California Cooperative Oceanic Fisheries Investigation (CalCOFI). A peer-reviewed paper (Schneider, et al., 2005) provides a comprehensive analysis to show that there is minimal variability in salinity over time and throughout the entire region of the Southern California Bight. Across 100,000 square kilometers of the Southern California Bight, the surface salinity varies by no more than 0.3 ppt, from 33.3 ppt at the northern end of the Bight to 33.6 at the southern end. This allows the conclusion that all data collected within the Southern California Bight can be considered in proximity of and representative of natural background salinity at the El Estero Water Resource Center discharge location (Discharge Point-001). CalCOFI Station 40.6 in the Santa Barbara Channel at 34.23 deg. N, 119.41 deg. W will serve as the Salinity Reference Monitoring Station for the determination of natural background salinity. The long-term average natural background salinity used for the El Estero Water Resource Center discharge in this Order is 33.5 ppt.

d. **Determination of Compliance with Receiving Water Salinity Limits**

The discharge salinity measured at monitoring location RSW-1 (located 100 m from the El Estero Outfall Diffuser) will be compared to the mean monthly salinity (33.5 ppt) calculated from 20-year averages of salinity data at CalCOFI Station 40.6 to

determine compliance with the receiving water limitation. For the first year of operation, discharge salinity must be measured at monitoring location RSW-1 on a sampling frequency of once per month. Receiving water monitoring for salinity* shall be conducted at times when the monitoring locations are most likely affected by the discharge. Discharge salinity measurements at RSW-1 should be vertical salinity profiles from near-surface to near-bottom using a conductivity/temperature/depth (CTD) sensor (e.g. Seabird SBE 19 or 25 or equivalent). Salinity sampling events should be correlated to brine and effluent flow rates. If monthly discharge salinity samples demonstrate compliance with the receiving water limitation, subsequent salinity sampling events may be reduced to once every year.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program**

The 2019 Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. The Central Coast Water Board will notify the Discharger in writing if such a program becomes necessary.

4. Construction, Operation, and Maintenance Specifications – Not Applicable

5. Special Provisions for Publicly Owned Treatment Works (POTWs)

a. **Biosolids Management**

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

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

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

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

b. **Pretreatment**

Pretreatment requirements for POTWs are contained within 40 C.F.R. part 403. Per 40 C.F.R. part 403.8, any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 MGD and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards will be required to establish a POTW pretreatment program unless the NPDES state exercises its option to

assume local responsibilities as provided for in section 403.10(e). The Executive Officer may require that a POTW with a design flow of 5 MGD or less develop a POTW pretreatment program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent interference with the POTW or pass through as defined in 40 C.F.R. part 403.3.

This Order includes pretreatment requirements since the Facility has total effluent flows in excess of 5 MGD and a number of significant industrial users.

6. Other Special Provisions

a. **Discharges of Storm Water**

This Order does not address discharges of storm water from the treatment and disposal site, except to require coverage by and compliance with applicable provisions of NPDES General Permit CAS000001 - *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.*

b. **Sanitary Sewer System Requirements**

Order R3-2010-0011 established wastewater collection system requirements for the proper operation, maintenance, and monitoring of the Discharger's collection system. Since the adoption of the previous Order in October 2004, the State Water Board has adopted a State-wide general permit for the regulation of the operation, maintenance, and monitoring of collection systems. This Order requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). This General Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger is enrolled under the General Permit.

7. Salt and Nutrient Management Plan

a. This Order requires the Discharger to submit documentation and summary of participation in a regional salt/nutrient management plan implemented under the provisions of the State Board's Recycled Water Policy.

8. Compliance Schedules – Not Applicable

9. Climate Change Adaptation

The Central Coast Water Board is addressing the threat of climate change, sea-level rise, and flooding by including provisions in new orders that ensure mitigation and adaptation strategies are implemented. There is widespread scientific consensus that climate change and sea-level rise are occurring and will continue at an accelerating rate into the future. Extreme weather events, including drought, high-intensity precipitation, flooding, and extreme heat have occurred through much of California in the recent years and are projected to increase in frequency, extent, or intensity due to climate change.

To help with increasing droughts, the El Estero Water Resource Center has increased the City's capacity for self-sufficient water supplies through increased recycling and desalination. Additionally, the City has evaluated the feasibility of future potable reuse. The alternatives that were evaluated in the *Potable Reuse Feasibility Study* will provide useful information for a future update to the City's *Long-Term Water Supply Plan* and provide for increased mitigation to more frequent drought cycles related to climate change.

Sea level rise has the potential to impact coastal discharging facilities through inundation, storm impacts, erosion, and saltwater intrusion and backflows, increasing the risk of accidental discharge that results in discharge permit violations. These events have significant implications for wastewater treatment and operations, such as increased corrosion, deposition of solids, infiltration, overflows, inundation of facilities, impairment of treatment processes, and disruption of power or electrical components. Due to the long-term nature of sea level rise risks, there is a need to avoid piecemeal or reactionary adaptation and instead undertake proactive, long-term planning with consideration of various adaptation strategies that both keep facilities safe, maintain safe discharging practices, and avoid impacts to coastal resources.

The City of Santa Barbara completed a draft *Sea Level Rise Vulnerability Assessment* in spring 2019. This document incorporated the current, best-available science on sea-level rise in California provided in the Ocean Protection Council's 2018 *Sea-Level Rise Guidance*, and the projections, planning steps, and principles provided in this report were used to analyze potential impacts to the facility, considering a range of possible sea-level rise scenarios. The vulnerability assessment evaluated coastal hazards for existing conditions and three main future sea-level rise scenarios: 0.8 feet at 2030, 2.5 feet at 2060, and 6.6 feet at 2100.Use of these scenarios is consistent with the recommendations of the *State of California Sea-level Rise Guidance* (OPC, 2018) and the California Coastal Commission's *Sea Level Rise Policy Guidance* (CCC, 2015). These scenarios are the "High Emissions" (RCP 8.5) and "Medium-High Risk Aversion" (0.5% probability) projections for Santa Barbara contained in the 2018 *State of California Sea-Level Rise Guidance*.

Because the El Estero Water Resource Center is located at a ground elevation of approximately 12 to 14 feet above historic mean sea level and is located approximately 0.25 miles inland from East Beach, it does not face an imminent threat from tidal flooding or coastal hazards. While it does not appear likely that the plant could be subject to flooding with modest rises in sea level, projections show that the El Estero Water Resource Center would be increasingly vulnerable over time to a 100-year flood event with a 4.6-foot rise in sea level. Modeling from the assessment identified tidal inundation in 2060 under the Higher Emission 1-In-200 Chance Scenario (2.5ft of SLR in 2060 for the Santa Barbara region). Modeling in the *Sea Level Rise Vulnerability Assessment* also showed regular temporary flooding during 100-year storm events could temporarily affect portions of the wastewater collection system south of Cabrillo Boulevard in 2030 in coastal low-lying areas (0.8ft of SLR). Thus, sea-level rise may necessitate the modification of plant facilities or operations in the coming decades.

The City is currently working on a California Coastal Commission-funded *Sea Level Rise Adaption Plan,* and a draft is expected to be completed and circulated to the public before the end of 2019. As part of the grant, the Coastal Commission is requiring that the City develop new policies to provide for sea-level rise adaptation consistent with the Coastal Act. The *Sea Level Rise Adaption Plan* will identify next steps for ensuring that critical City infrastructure, including the El Estero Water Resource Center, is made

resilient to projected sea level rise. The adaption plan and its policies are scheduled to be adopted in 2020 by Santa Barbara City Council. City of Santa Barbara staff expects to present draft policies to the Coastal Commission in 2021.

No later than May 10, 2022, this permit requires the Discharger to submit the *Sea Level Rise Adaption Plan* and an updated hazard mitigation plan to the Central Coast Water Board for Executive Officer review. The *Sea Level Rise Adaption Plan* will include recommendations for monitoring, a vulnerability analysis, and provide a clear, long-term plan for addressing flooding and other coastal hazards and coastal resource impacts to public and private infrastructure along the City's coastline, including the El Estero Water Resource Center. The *Sea Level Rise Adaption Plan* will analyze a range of sea-level rise scenarios applicable to the anticipated life of the facility and utilize the latest *State of California Sea Level Rise Guidance* (OPC, 2018) and the California Coastal Commission's *Sea Level Rise Policy Guidance* (CCC, 2015). The City's *Sea Level Rise Adaption Plan* will describe the City's process and schedule for a facility-specific analysis of the El Estero Water Resource Center. In addition to the *Sea Level Rise Adaption Plan*, the City will submit an updated hazard mitigation plan to provide a clear, long-term plan for addressing flooding and other coastal hazards, as well as coastal resource impacts at the El Estero Water Resource Center over the long term.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping 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, influent monitoring for $CBOD_5$ and TSS is required to determine compliance with the Order's 85 percent removal requirement for those pollutants. Influent monitoring has been retained from the previous order.

B. Effluent Monitoring

Effluent monitoring requirements for Discharge Point No. 001 have been established at three locations, M-001, EFF-001A, and EFF-001B. Monitoring requirements established at M-001 are intended to evaluate compliance with effluent limitations for the POTW effluent when there is not discharge of desalination brine. Monitoring requirements at EFF-001A are intended to evaluate compliance with technology-based effluent limitations for the POTW effluent, which are applicable prior to commingling with any other waste streams. Monitoring requirements at EFF-001B are intended to evaluate compliance with technology-based effluent limitations for the effluent when treated wastewater and desalination brine are commingled. Effluent monitoring for salinity and enterococcus are necessary to demonstrate compliance with the effluent limitations for these parameters.

The monitoring frequency for silver, heptachlor, and heptachlor epoxide at Monitoring Location M-001 has been increased from annually to quarterly, and monitoring frequencies for tributylin and chlorinated phenolics has been decreased from quarterly to annually based on results of the RPA. The monitoring frequency of selenium at Monitoring Location EFF-001B has been increased from annually to quarterly based on results of the RPA. All other monitoring frequencies have been retained from the previous order.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. This Order retains acute and chronic monitoring requirements from the previous order for Discharge Point No. 001.

D. Recycled Water Monitoring

The Recycled Water Policy requires wastewater treatment plants and recycled water producers to submit annual reports of monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type, as well as annual reports of recycled water use by volume and category of reuse. State Board Order WQ 2019-0037-EXEC amended the monitoring and reporting program for Order No. R3-2010-011 to include these requirements, which are retained and incorporated in this Order. Recycling water monitoring requirements in this Order are based on title 22 criteria and the title 22 engineering report approved by DDW.

E. Receiving Water Monitoring

1. Surface Water

Shoreline bacteria monitoring is required, as it was in Order R3-2010-0011, in the event that three consecutive effluent total coliform and/or fecal coliform bacteria tests, in any combination, exceed 16,000 per 100 mL or 3,200 per 100 mL, respectively. Receiving water monitoring is necessary to evaluate compliance with water quality objectives contained in the Ocean Plan, and for the protection of human health.

This Order has determined natural background salinity through a reference location with extensive historical data. The Facility must submit receiving water salinity data in order to verify compliance with requirements in Ocean Plan section III.M.3. The Discharger is required to monitor salinity at a frequency of once per month to verify compliance with the receiving water limitation. The Ocean Plan specifies “the permit should specify that historical data shall be used if reference location data becomes unavailable.” Therefore, in the event that the Discharger is unable to collect salinity data at RSW-1, the Discharger shall use the best available data to calculate natural background salinity as the average of 20 years of historical salinity collected in the proximity of discharge.

2. Groundwater

Groundwater monitoring requirements are not established by this Order.

F. Other Monitoring Requirements

1. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), U.S. EPA requires major and selected minor permittees under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by U.S. EPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution

Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

2. Biosolids/Sludge Monitoring.

Biosolids monitoring requirements are retained from the previous order.

3. Benthic Sediment, Biota, Monitoring and Chemical Analysis

Benthic sediment and biota monitoring, and chemical analysis monitoring requirements are retained from the previous order.

4. Pretreatment Monitoring

Pretreatment monitoring requirements are retained from the previous order. These requirements are authorized under 40 C.F.R. Part 403.8.

5. Outfall Inspection

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

VIII. PUBLIC PARTICIPATION

The Central Coast Water Board considered the issuance of WDRs that serve as an NPDES permit for the Facility. As a step in the WDR adoption process, Central Coast Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

A. Notification of Interested Persons

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 also provided through posting in the Santa Barbara News-Press newspaper on September 9, 2019, posting on the Central Coast Water Board's website, and posting at the Facility and Post Office.

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

B. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs as provided through the notification process. Comments were due either in person, by email, or by mail to the Executive Officer at the Central Coast Water Board at:

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906
Centralcoast@waterboards.ca.gov

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 October

9, 2019. A comment was received on October 8, 2019, from the Discharger requesting that the Order clarify that the desalination brine discharge also occasionally includes seawater, potable water, and filter backwash. Central Coast Water Board staff added this clarification to the proposed Order. In addition, references to Tables 1, 2, and 3 of the Ocean Plan have been edited to correctly reference Tables 3, 4 and 5 of the 2019 Ocean Plan, and other minor changes were made for clarity and legal clarification after the comment period closed.

C. Public Hearing

The Central Coast Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	December 13, 2019
Time:	9:00 a.m.
Location:	Central Coast Water Board 895 Aerovista Place, Suite 101 San Luis Obispo, CA 93401

Interested persons were invited to attend. At the public hearing, the Central Coast Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

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 Peter von Langen at (805) 549-3688 or peter.vonlangen@waterboards.ca.gov.