ORDER NO. R3-2018-0017
NPDES NO. CA0048551

WASTE DISCHARGE REQUIREMENTS FOR THE MONTEREY ONE WATER REGIONAL WASTEWATER TREATMENT PLANT AND ADVANCED WATER PURIFICATION FACILITY DISCHARGE TO THE PACIFIC OCEAN

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

Table 1. Discharger Information

Discharger	Monterey One Water[1]
Name of Facility	Regional Wastewater Treatment Plant (WWTP) and Advanced Water Purification Facility (AWPF), Marina, Monterey County
Facility Address	14811 Del Monte Boulevard
	Marina, CA 93933
	Monterey County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary Treated Wastewater, Saline Waste, and Reverse Osmosis (RO) Concentrate	36.72778º	-121.83750º	Pacific Ocean
002	Disinfected Tertiary Recycled Municipal Wastewater	_	_	Reclamation Use

[1] Monterey One Water (abbreviated M1W) was formerly called the "Monterey Regional Water Pollution Control Agency." Prior orders issued for this facility used this name for the Discharger.

Table 3. Administrative Information

This Order was adopted on:	**December 6, 2018**
This Order shall become effective on:	**April 1, 2019**
This Order shall expire on:	**March 31, 2024**
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:	**September 30, 2023**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Coast Region 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 Digitally signed by John M. Robertson
Date: 2018.12.10 18:00:32 -08'00'

John M. Robertson, Executive Officer

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Regional Wastewater Treatment Plant (WWTP) and Advanced Water Purification Facility (AWPF) (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 (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 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, V.B, VI.C.5.d, and VI.C.5.c. of this Order and Sections VI and VII of the Monitoring and Reporting Program are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

D. Notification of Interested 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.

E. Consideration of Public Comment. The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order No. R3-2014-0013 is revoked and rescinded upon the effective date of this Order except for enforcement purposes and that, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Coast Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater to the Pacific Ocean at a location other than as described by this Order at 36.72778º latitude, -121.83750º longitude is prohibited.

B. The secondary effluent dry weather average monthly rate of discharge from the WWTP shall not exceed 29.6 million gallons per day (MGD).

C. The influent flow to the secondary treatment system shall not exceed 29.6 MGD average dry weather flow and 75.6 MGD peak wet weather flow.

D. The rate of discharge to Monterey Bay shall not exceed 81.2 MGD.

E. The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.A.7 (Bypass), is prohibited

F. Discharge of any waste in any manner other than as described by this Order, excluding storm water regulated by General Permit No. CAS000001 (Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities), is prohibited.

G. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

H. 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.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Effluent Limitations – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 4. Effluent Limitations – Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75	--	--
	lbs/day[1]	6,200	10,000	19,000	--	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	230
pH[2]	standard units	--	--	--	6.0	9.0

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L

Q = observed flow rate in MGD

[2] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. § 401.17):
a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month, and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

b. The Discharger shall maintain compliance with the following effluent limitations with compliance measured at Monitoring Location EFF-001A as described in the Monitoring and Reporting Program, Attachment E:

Table 5. Effluent Limitations at EFF-001A

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)	mg/L	25	40	85	--	--
	lbs/day[1]	6,200	10,000	21,000	--	--
	% removal	not less than 85[2]	--	--	--	--
Total Suspended Solids (TSS)	mg/L	30	45	90	--	--
	lbs/day[1]	7,400	11,000	22,000	--	--
	% removal	not less than 85[2]	--	--	--	--
pH[3]	standard units	--	--	--	6.0	9.0

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the WWTP and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] The average monthly percent removal of $CBOD_5$ and TSS shall not be less than 85 percent.

[3] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. § 401.17):
a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month, and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH

values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

c. Toxic Pollutants

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

Table 6. Effluent Limitations for the Protection of Marine Aquatic Life – Discharge Point 001

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Daily Maximum[2]	Instantaneous Maximum[3]
Cadmium, Total Recoverable	µg/L	1.0	4.0	10
	lbs/day[4]	36	140	360
Lead, Total Recoverable	µg/L	2.0	8.0	20
	lbs/day[4]	72	290	720
Silver, Total Recoverable	µg/L	0.7	2.8	7.0
	lbs/day[4]	20	95	250
Cyanide, Total[5]	µg/L	1.0	4.0	10
	lbs/day[4]	36	140	360
Total Residual Chlorine[6], [7]	µg/L	2.0	8.0	60
	lbs/day[4]	72	290	2,200
Ammonia, Total (as N)	µg/L	600	2,400	6,000
	lbs/day[4]	22,000	87,000	220,000
Acute Toxicity[8]	Pass/Fail, % Effect	--	Pass	--
Chronic Toxicity [9]	Pass/Fail, % Effect	--	Pass	--
Endosulfan[10]	µg/L	0.009	0.018	0.027
	lbs/day[4]	0.32	0.65	0.97
Endrin	µg/L	0.002	0.004	0.006
	lbs/day[4]	0.071	0.14	0.21
Hexachlorocyclohexanes (HCH)[11]	µg/L	0.004	0.008	0.012
	lbs/day[4]	0.14	0.29	0.43
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 except total chlorine residual, ammonia, acute toxicity and chronic toxicity which are collected as grab 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] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to U.S. EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 C.F.R. part 136, as revised May 14, 1999.

[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.
The applicable effluent limitation must then be determined using Equation No. 1 from the Ocean Plan.

[7] The Discharger is not required to disinfect secondary effluent due to treatment system performance and outfall configuration and placement. The total chlorine residual effluent limitations are retained in this Order in the event the Discharger implements chlorine-based disinfection in the future and to verify compliance with Ocean Plan Table 1 pollutant monitoring requirements which include total chlorine residual.

[8] As specified in section VII.G of this Order and section V of the MRP (Attachment E).

[9] As specified in section VII.G of this Order and section V of the MRP (Attachment E).

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

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

[12] For compliance determination with effluent limitations, except acute and chronic toxicity, the Discharger shall report the calculated Co instantaneous maximum, daily maximum, and 6-month median results for comparison to effluent limitations.

The Co shall be calculated and reported using the equation below:

$$Co = \frac{Ce + DmCs}{1 + Dm}$$

where:

Co = the concentration at the completion of initial dilution to be compared to effluent limitations in Table 6 of this Order for compliance determination.
Ce = effluent concentration reported for Monitoring Location EFF-001.
Cs = background seawater concentration provided in Table 3 of the 2015 Ocean Plan (with all metals expressed as total recoverable concentration, µg/L
Dm = the minimum probable initial dilution corresponding to Concentrate Waste Dilution Ratio as follows:

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	Dm for Compliance with Ocean Plan Table 1 Parameters (except acute toxicity)
0-0.127	145
0.128 – 0.421	259
0.422 – 0.744	388
≥ 0.745	473

[13] For Acute and Chronic Toxicity, the Discharger shall calculate and report Pass/Fail at the Instream Waste Concentration (IWC) where the IWC is determined in the following table:

Table 7. Instream Waste Concentration (IWC)

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent[1]	Dm for Compliance with Whole Effluent Toxicity Limits		IWC (%)[3]	
	Acute Toxicity[2]	Chronic Toxicity	Acute Toxicity	Chronic Toxicity
0-0.127	14.5	145	6.4	0.68
0.128 – 0.421	25.9	259	3.7	0.38
0.422 – 0.744	38.8	388	2.5	0.26
≥ 0.745	47.3	473	2.0	0.21

[1] Where the toxicity test requires sample collection on multiple days, the Discharger shall base the IWC on the lowest anticipated concentrate waste dilution ratio over the course of the discharge. The minimum probable initial dilution is expressed as parts seawater per part wastewater. For example, a Dm of 145 represents 1 part solute to 145 parts dilutant for a total of 146 parts.

[2] Dm (acute toxicity) = 10% of Dm

[3] IWC $= \frac{1}{Dm+1}\ x\ 100$

Table 8. Effluent Limitations for the Protection of Human Health – (Non-Carcinogens)

Parameter	Units	Average Monthly
Acrolein	µg/L	220
	lbs/day[1]	7,900
Antimony	µg/L	1,200
	lbs/day[1]	43,000
Bis(2-Chloroethoxy)Methane	µg/L	4.4
	lbs/day[1]	160
Bis(2-Chloroisopropyl)Ether	µg/L	1,200
	lbs/day[1]	43,000
Chlorobenzene	µg/L	570
	lbs/day[1]	21,000
Di-n-Butyl Phthalate	µg/L	3,500
	lbs/day[1]	130,000
Dichlorobenzenes	µg/L	5,100
	lbs/day[1]	180,000
Diethyl Phthalate	µg/L	33,000

Parameter	Units	Average Monthly
	lbs/day[1]	1,200,000
Dimethyl Phthalate	µg/L	820,000
	lbs/day[1]	30,000,000
2-Methyl-4,6-Dinitrophenol	µg/L	220
	lbs/day[1]	7,900
2,4-Dinitrophenol	µg/L	4.0
	lbs/day[1]	140
Ethylbenzene	µg/L	4,100
	lbs/day[1]	150,000
Fluoranthene	µg/L	15
	lbs/day[1]	540
Hexachlorocyclopentadiene	µg/L	58
	lbs/day[1]	2,100
Nitrobenzene	µg/L	4.9
	lbs/day[1]	180
Thallium	µg/L	2.0
	lbs/day[1]	72
Toluene	µg/L	85,000
	lbs/day[1]	3,100,000
Tributyltin	µg/L	0.0014
	lbs/day[1]	0.050
1,1,1-Trichloroethane	µg/L	540,000
	lbs/day[1]	19,000,000

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

Table 9. Effluent Limitations for the Protection of Human Health – (Carcinogens)

Parameter	Units	Average Monthly
Acrylonitrile	µg/L	0.1
	lbs/day[1]	3.6
Aldrin	µg/L	0.000022
	lbs/day[1]	0.00079
Benzene	µg/L	5.9
	lbs/day[1]	210
Benzidine	µg/L	0.000069
	lbs/day[1]	0.0025
Beryllium	µg/L	0.033

Parameter	Units	Average Monthly
	lbs/day[1]	1.2
Bis(2-Chloroethyl)Ether	µg/L	0.045
	lbs/day[1]	1.6
Bis(2-Ethylhexyl)Phthalate	µg/L	3.5
	lbs/day[1]	130
Carbon Tetrachloride	µg/L	0.90
	lbs/day[1]	32
Chlordane[2]	µg/L	0.000023
	lbs/day[1]	0.00083
Chlorodibromomethane	µg/L	8.6
	lbs/day[1]	310
Chloroform	µg/L	130
	lbs/day[1]	4,700
1,4 Dichlorobenzene	µg/L	18
	lbs/day[1]	650
3,3'-Dichlorobenzidine	µg/L	0.0081
	lbs/day[1]	0.29
1,2-Dichloroethane	µg/L	28
	lbs/day[1]	1,000
1,1-Dichloroethylene	µg/L	0.9
	lbs/day[1]	32
Dichlorobromomethane	µg/L	6.2
	lbs/day[1]	220
Dichloromethane (Methylene Chloride)	µg/L	450
	lbs/day[1]	16,000
Dieldrin	µg/L	0.00004
	lbs/day[1]	0.0014
2,4-Dinitrotoluene	µg/L	2.6
	lbs/day[1]	94
1,2-Diphenylhydrazine	µg/L	0.16
	lbs/day[1]	5.8
Halomethanes[3]	µg/L	130
	lbs/day[1]	4,700
Heptachlor	µg/L	0.00005
	lbs/day[1]	0.0018
Heptachlor Epoxide	µg/L	0.00002
	lbs/day[1]	0.00072
Hexachlorobenzene	µg/L	0.00021
	lbs/day[1]	0.0076
Hexachlorobutadiene	µg/L	14
	lbs/day[1]	500
Hexachloroethane	µg/L	2.5

Parameter	Units	Average Monthly
	lbs/day[1]	90
Isophorone	µg/L	730
	lbs/day[1]	26,000
N-Nitrosodimethylamine	µg/L	7.3
	lbs/day[1]	260
N-Nitrosodi-n-Propylamine	µg/L	0.38
	lbs/day[1]	14
N-Nitrosodiphenylamine	µg/L	2.5
	lbs/day[1]	90
Polychlorinated Biphenyls (PCBs)[4]	µg/L	0.000019
	lbs/day[1]	0.00068
TCDD Equivalents[5]	µg/L	3.9E-09
	lbs/day[1]	1.4E-07
1,1,2,2-Tetrachloroethane	µg/L	2.3
	lbs/day[1]	83
Tetrachloroethylene	µg/L	2.0
	lbs/day[1]	72
Toxaphene	µg/L	0.00021
	lbs/day[1]	0.0076
Trichloroethylene	µg/L	27
	lbs/day[1]	970
1,1,2-Trichloroethane	µg/L	9.4
	lbs/day[1]	340
2,4,6-Trichlorophenol	µg/L	0.29
	lbs/day[1]	10
Vinyl Chloride	µg/L	36
	lbs/day[1]	1,300

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

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

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

[4] Polychlorinated biphenyls (PCBs) 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.

[5] 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. Bacteria. The following total coliform, fecal coliform, and enterococcus effluent limits apply at Discharge Point 001 (with compliance measured at Monitoring Location EFF-001B) if the Executive Officer concludes from a bacterial assessment (described in Receiving Water Limitation A.1) that the discharge consistently exceeds Receiving Water Limitation A.1.

i. The daily maximum total coliform density shall not exceed 10,000 MPN/100 mL.

ii. The daily maximum fecal coliform density shall not exceed 400 MPN/100 mL.

iii. The daily maximum enterococcus density shall not exceed 104 MPN/100 mL.

e. Minimum Initial Dilution. The minimum initial dilution of treated effluent at the point of discharge to Monterey Bay shall not be less than the minimum probable initial dilution (Dm) values in Table 10. The allowable Dm value corresponds to the associated ratio of seawater to the combined volume of AWPF reverse osmosis (RO) concentrate, hauled saline waste, and secondary effluent.

B. Land Discharge Specifications – Discharge Point – Not Applicable

C. 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 Salinas Valley Reclamation Project (SVRP) as per the September 12, 2017 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). Production and reuse of recycled water at the facility is currently regulated separately under Water Reclamation Requirements Order No. 94-082. Specifications related to recycled water production are also included here. The

Central Coast Water Board intends to rescind Order No. 94-082 and regulate the production of recycled water by this Order.

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 REC-001, as described in the attached MRP.

Table 9. Disinfected Tertiary Recycled Water Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD_5	mg/L	10	20
TSS	mg/L	10	20

6. The rate of filtration through the tertiary filters at INT-001 shall not exceed 7.5 gpm/ft^2 of surface area.

7. Filtered recycled water at INT-002 shall not exceed any of the following turbidity limits:

a. An average of 2 NTU within a 24-hour period,

b. 5 NTU more than 5 percent of the time within a 24-hour period, and

c. 10 NTU at any time.

8. The concentration of total coliform bacteria measured at REC-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 and 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. Recycled water shall be confined to areas of authorized use at the WWTP and permitted construction projects without discharge to surface waters or drainage ways.

14. 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.

15. Spray irrigation of recycled water at the WWTP or construction sites shall be accomplished at a time and in a manner to minimize ponding and contact with the public.

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

17. 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.

18. Recycled water systems at the WWTP site 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 Limitations

The following receiving water limitations are based on water quality objectives contained in the Ocean Plan and are a required part of this Order. Compliance shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. The discharge shall not cause the following in the Pacific Ocean.

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, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.

30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.

i. Total coliform density shall not exceed 1,000 MPN per 100 mL, nor shall a single sample density;

ii. Fecal coliform density shall not exceed 200 MPN per 100 mL; and

iii. Enterococcus density shall not exceed 35 MPN per 100 mL.

Single Sample Maximum (SSM) – The following standards are allowable single sample maximums.

i. Total coliform density shall not exceed 10,000 MPN per 100 ml;

ii. Fecal coliform density shall not exceed 400 MPN per 100 mL;

iii. Enterococcus density shall not exceed 104 MPN per 100 mL; and

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

2. Shellfish Harvesting Standards

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

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

3. Physical Characteristics

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

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

c. Natural light shall not be significantly reduced at any point outside the initial dilution zone 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. Discharges shall not cause exceedances of water quality objectives for ocean waters of the State established in Table 1 of the Ocean Plan.

4. Chemical Characteristics

a. The dissolved oxygen concentration shall not, at any time, be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen-demanding waste.

b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

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

d. The concentrations of substances set forth in Ocean Plan, Table 1, shall not be increased to levels in marine sediments that 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.

5. 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.

6. 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.

7. General Standards

a. The discharge shall not cause a violation of any applicable water quality objective or standard for receiving waters adopted by the Central Coast Water Board or State Water Resources Control Board (State Water Board), as required by the CWA and regulations adopted thereunder.

b. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

c. Waste effluents shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

B. Groundwater Limitations

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

1. Groundwater shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.

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

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.

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

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

B. Monitoring and Reporting Program (MRP) Requirements

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 the 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 for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan (Ocean Plan) Table 1 water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Evaluation Requirements

This Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge consistently exceeds an effluent limitation for toxicity specified in Section IV of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's approved TRE Work Plan.

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

source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

i. **TRE Work Plan.** Within ninety days of the permit effective date, the Discharger shall prepare and submit an updated copy of their TRE Work Plan to the Central Coast Water Board and U.S. EPA Region 9 for review and approval. The TRE Work Plan shall be prepared in accordance with *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99-022). This TRE Work Plan shall include steps the Discharger intends to implement if toxicity is measured above an effluent limitation and should include, at minimum: a) 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, b) 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, and c) if a TIE is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

ii. **Accelerated Monitoring and TRE Initiation**. When an effluent limitation for acute or chronic toxicity is exceeded during regular whole effluent toxicity (WET) monitoring, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications of this Provision. The Discharger shall initiate a TRE to address effluent toxicity if any WET test results exceeds the acute or chronic effluent limit during accelerated monitoring. The Discharger shall take all reasonable steps to reduce toxicity once the source of toxicity is identified.

b. Accelerated Monitoring Specifications: If the chronic toxicity effluent limit is exceeded during regular chronic toxicity monitoring, the Discharger shall initiate accelerated monitoring within 14 days of notification by the laboratory of the exceedance.

i. The following protocol shall be used for accelerated monitoring and TRE initiation.

(a) If accelerated monitoring is triggered on the basis of an acute or chronic toxicity effluent limit exceedance, accelerated WET testing shall utilize a 5-concentration plus control dilution series bracketing the discharge instream waste concentration (IWC), thus permitting an evaluation of magnitude of effect through point estimate (i.e., EC25) analysis.

(b) If the acute toxicity effluent limit is exceeded during regular acute toxicity monitoring, the Discharger shall immediately resample the effluent and retest for acute toxicity.

(c) If the toxicity effluent limit is exceeded and the source of toxicity is known (e.g., a temporary plant upset), the Discharger shall make necessary corrections to the facility and shall conduct one additional toxicity test using the same species and test method that exhibited toxicity. If the additional toxicity test does not

exceed the toxicity effluent trigger, then the Discharger may return to their regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(d) If the toxicity effluent limit is exceeded and the source of toxicity is not known, the Discharger shall conduct five additional toxicity tests conducted once every two weeks using the same species and test method that exhibited toxicity. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to their regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(e) If the result of any accelerated toxicity test exceeds the acute or chronic effluent limit, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty days of notification by the laboratory of any test result exceeding the acute or chronic effluent limit during accelerated monitoring, the Discharger shall develop and implement a TRE Action Plan which shall include at a minimum: a) specific actions the Discharger will take to investigate, identify, and correct the causes of toxicity, b) specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity, and c) a schedule for these actions. This TRE Action Plan and schedule are subject to approval and modification by the Executive Officer. A failure to conduct TRE-related toxicity tests or a TRE within an approved period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. While in a TRE, TRE-related toxicity testing conducted as part of the TRE investigation will not be subject to enforcement action.

(f) 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 EO. The EO will determine whether it is appropriate to initiate enforcement action, require the Discharger to implement TRE requirements (sections VI.C.2.a of this Order), or implement other measures.

c. Water Contact Monitoring (Bacterial Characteristics)

In accordance with Ocean Plan section III.D.1.b, if a single sample exceeds any of the bacteriological SSM standards contained within section V.A.1 of this Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. The Executive Officer (EO) shall be notified within 24 hours of receiving analytical results and repeat sampling shall be conducted within 24 hours of receiving analytical results and continued based per a sampling frequency as directed by the EO until

the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities.

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

(This requirement is also footnoted in Table E-14 of section VIII.A of Attachment E Monitoring and Reporting Program.)

d. Brine Waste Disposal Study

Prior to increasing the volume of desalination brine waste discharged through the ocean outfall beyond 375,000 gallons maximum daily flow, the Discharger shall submit a brine waste disposal study to the Executive Officer for approval. The study shall include, at a minimum, the following elements: (1) a projection of the desalination brine volume and characteristics, (2) an assessment of the impact of the increased desalination brine volume on permit compliance, (3) an assessment of the impact of the increased desalination brine volume on the minimum probable initial dilution at the point of discharge, (4) a detailed description of any desalination brine waste disposal facilities that are proposed to accommodate the increased desalination brine volume and facilitate blended secondary effluent and desalination brine wastes flow metering and sampling, and (5) a schedule for the design and construction of the new desalination brine disposal facilities. The Order includes a requirement to send a copy of the study to the Monterey Bay National Marine Sanctuary (MBNMS).

e. Ocean Outfall and Diffuser Monitoring

The Discharger shall conduct a dye dilution study once per year for 4 years to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. This inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. During year 5, a physical outfall inspection will be conducted to check the structural integrity and possible external blockage of ports by rocks or sand deposition. Results of the dye studies and outfall inspections shall be reported in the applicable annual reports.

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.

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

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 semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable pollutant(s) 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 pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), 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 pollutant(s);

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

a. The Facility shall be operated as specified under Standard Provision I.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 Regional 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. part 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 noncompliance 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. section 403.8 (f)(1);

ii. Enforce the pretreatment requirements under 40 C.F.R. sections 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. section 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 1 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. R3-2018-0017.

c. Collection System

The Discharger is subject to the requirements of, and must comply with State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, including monitoring and reporting requirements as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

d. Resource Recovery from Anaerobically Digestible Material

If the Discharger will receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the Central Coast Water Board and develop and implement Standard Operating Procedures for this activity. The Standard Operation Procedures shall be developed prior to receiving hauled-in anaerobically digestible material. The Standard Operating Procedures shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion; transportation; spill prevention; and spill response. In addition, the Standard Operating Procedures shall address avoidance of the introduction of materials that could cause interference, pass-through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the Standard Operating Procedures and shall maintain records for a minimum of five years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of five years for the disposition, location, and quantity of cumulative pre-digestion-segregated solid waste hauled offsite.

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. Concentrate Waste Dilution Ratio

For compliance with Ocean Plan Table 1 effluent limitations at Discharge Point 001, the Discharger will report a calculated concentration using an appropriate Dm, according to instructions in the MRP sections IV.B. The Dm is assigned on a given day based on the ratio of RO concentrate, and hauled saline waste from reverse osmosis or ion exchange regeneration systems to total effluent, referred to in this permit as the concentrate waste dilution ratio (see Table 10). Calculated concentrations are reported for Monitoring Location EFF-001B. Compliance is then determined by comparing limitations or Ocean Plan Table 1 objectives at Discharge Point 001 to calculated results at Monitoring Location EFF-001B. In addition, raw effluent monitoring results shall be reported for Monitoring Location EFF-001.

Table 10. Concentrate Waste Dilution Ratio Ranges and Corresponding Dilution[1]

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	Dm for Compliance with Ocean Plan Table 1 Parameters
0-0.127	145
0.128 – 0.421	259
0.422 – 0.744	388
≥ 0.745	473

[1] Minimum probable initial dilution expressed as parts seawater per part wastewater.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

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

A. General

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

B. Multiple Sample Data

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

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

C. Average Monthly Effluent Limitation (AMEL)

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the

AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL)

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

E. Maximum Daily Effluent Limitation (MDEL)

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

F. Acute and Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” from an acute or chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-004, 2010), Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge “in-stream” waste concentration (IWC) response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.” Acute and chronic WET testing is to be performed with only two test concentrations, the laboratory control and a single effluent treatment (the IWC). As discussed in Fact Sheet section IV.C.6, evaluation of concentration-response does not apply to single-concentration (IWC) tests where the TST is applied. Concentration-response is required during accelerated monitoring tests.

The MDEL for acute or chronic toxicity is exceeded and a violation will be flagged when an acute or chronic toxicity test, analyzed using the TST statistical approach, results in “Fail.”

The acute and chronic toxicity MDELs are set at the IWC for the discharge and expressed in units of the TST statistical approach (“Pass” or “Fail”). The IWC will depend on the concentrate waste dilution ratio and applicable Dm as provided in Table 11 below.

Table 11. Instream Waste Concentration (IWC)

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent[1]	Dm for Compliance with Effluent Limits		IWC	
	Acute Toxicity[2]	Chronic Toxicity	Acute Toxicity	Chronic Toxicity
0-0.127	14.5	145	6.4	0.69
0.128 – 0.421	25.9	259	3.7	0.39
0.422 – 0.744	38.8	388	2.5	0.26
≥ 0.745	47.3	473	2.0	0.21

[1] Where toxicity test requires sample collection on multiple days, the Discharger shall base the IWC on the lowest anticipated concentrate waste dilution ratio over the course of the discharge.

[2] Based on Equation 2 in section III.C.4.b of the California Ocean Plan.

G. 6-Month Median

For compliance with effluent limitations expressed as a 6-month median, the Discharger shall calculate a moving 6-month median concentration from the results reported for Monitoring Location EFF-001B and compare them to the effluent limitations at Discharge Point 001. Other requirements for compliance determination are provided in the MRP section X.B.

ATTACHMENT A – DEFINITIONS

Acute Toxicity (not applicable to Test of Significant Toxicity hypothesis testing)

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

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

b. Lethal Concentration 50% (LC50)
LC50 (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 LC50 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 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:

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

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 Waste
Waste with total dissolved solids greater than seawater. For the Central Coast of California this means total dissolved solids concentrations greater than about 33,000 mg/L.

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

Chronic Toxicity (not applicable to Test of Significant Toxicity hypothesis testing):
This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

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

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

b. No Observed Effect Level (NOEL)

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

Concentrate Waste Dilution Ratio
The ratio of reverse osmosis concentrate from the Pure Water Monterey Advanced Water Purification Facility plus hauled saline waste from reverse osmosis or ion exchange regeneration systems to total effluent.

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

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

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

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

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

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

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

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

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

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

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

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

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

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

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

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

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

"In-stream" Waste Concentration (IWC)
The concentration of a toxicant of effluent in the receiving water expressed as percent after mixing (the inverse of the dilution factor). A discharge of 100% effluent will be considered the IWC whenever mixing zones or dilution credits are not authorized by the applicable Water Board.

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 reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 C.F.R. part 136, Attachment B.

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

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

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

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

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

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

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Coast Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

RO Concentrate
Concentrate from Reverse Osmosis process at the Advanced Water Purification Facility (AWPF).

Saline Waste
Wastewaters hauled to the WWTP from water treatment facilities. The saline waste includes the concentrate from reverse osmosis and the waste solutions from ion exchange regeneration. This waste is generally less salty than brine but more salty than wastewater.

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

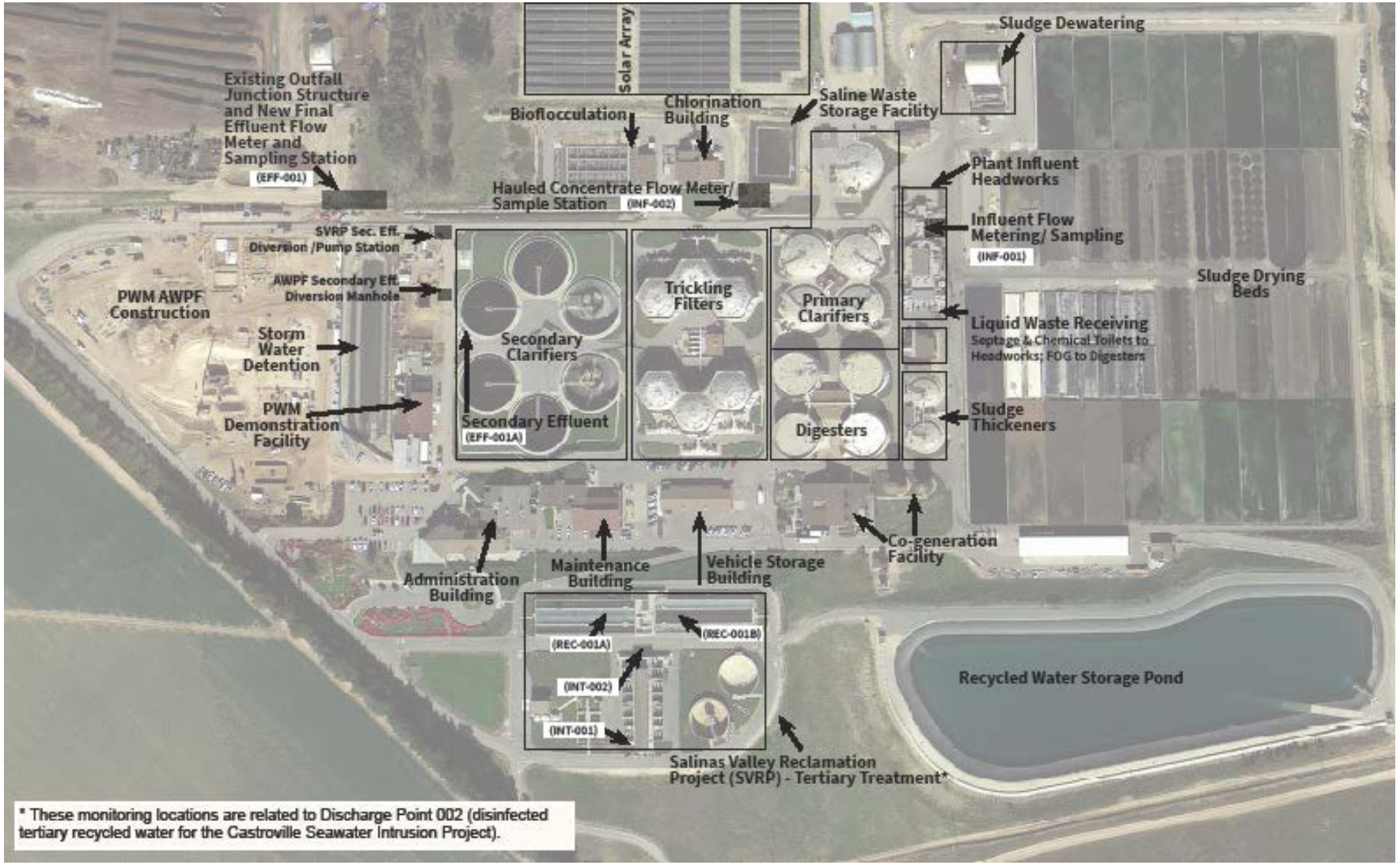
Test of Significant Toxicity (TST)
The statistical approach described in the NPDES Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010). TST was developed by the US EPA for analyzing WET and ambient toxicity data. Using the TST approach, the sample is declared toxic if there is greater than or equal to a 25% effect in chronic tests, or if there is greater than or equal to a 20% effect in acute tests at the permitted Instream Waste Concentration (IWC) [referred to as the toxic regulatory management decision (RMD)]. The sample is declared non-toxic if there is less than or equal to a 10% effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD).

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.)

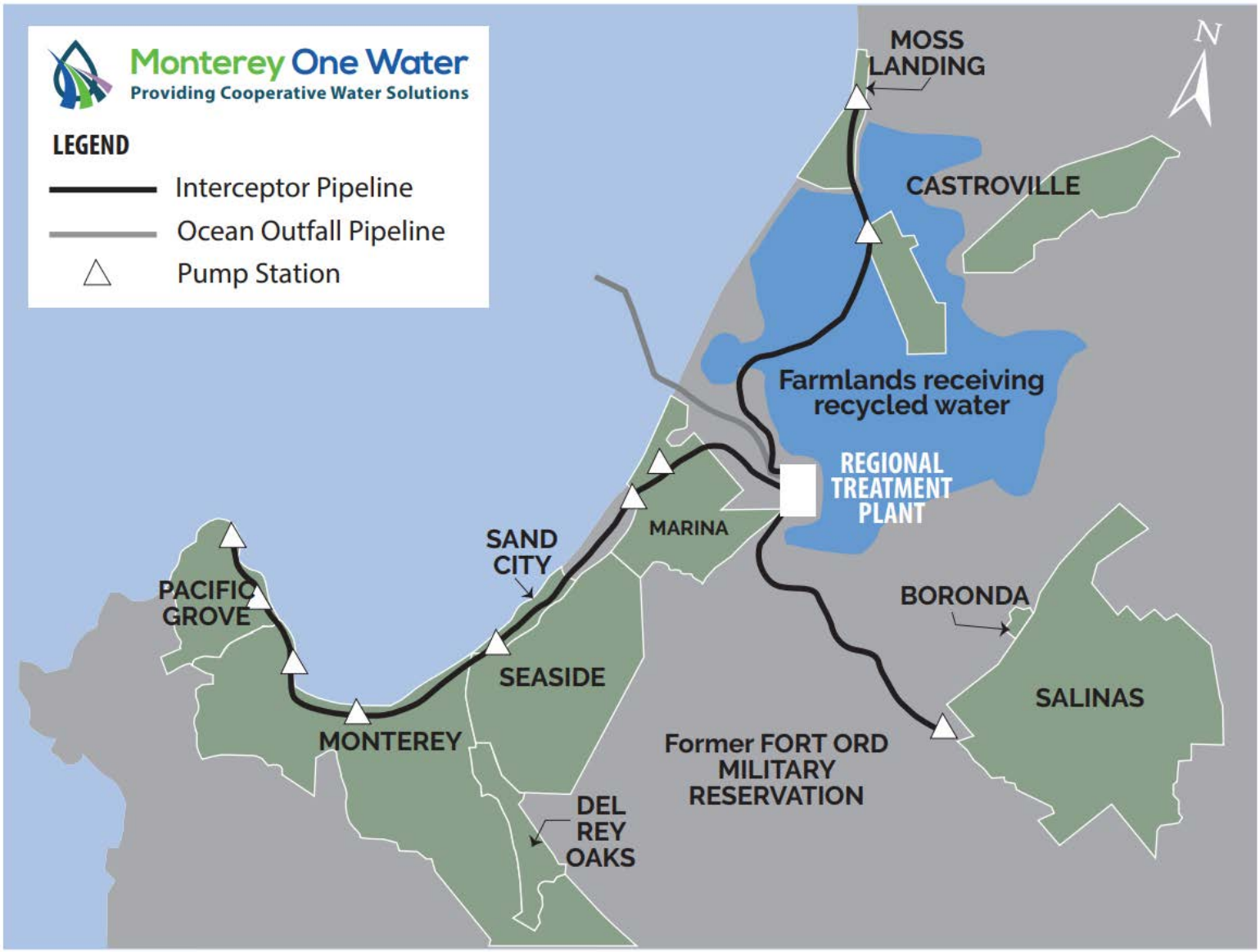
Waste
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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.

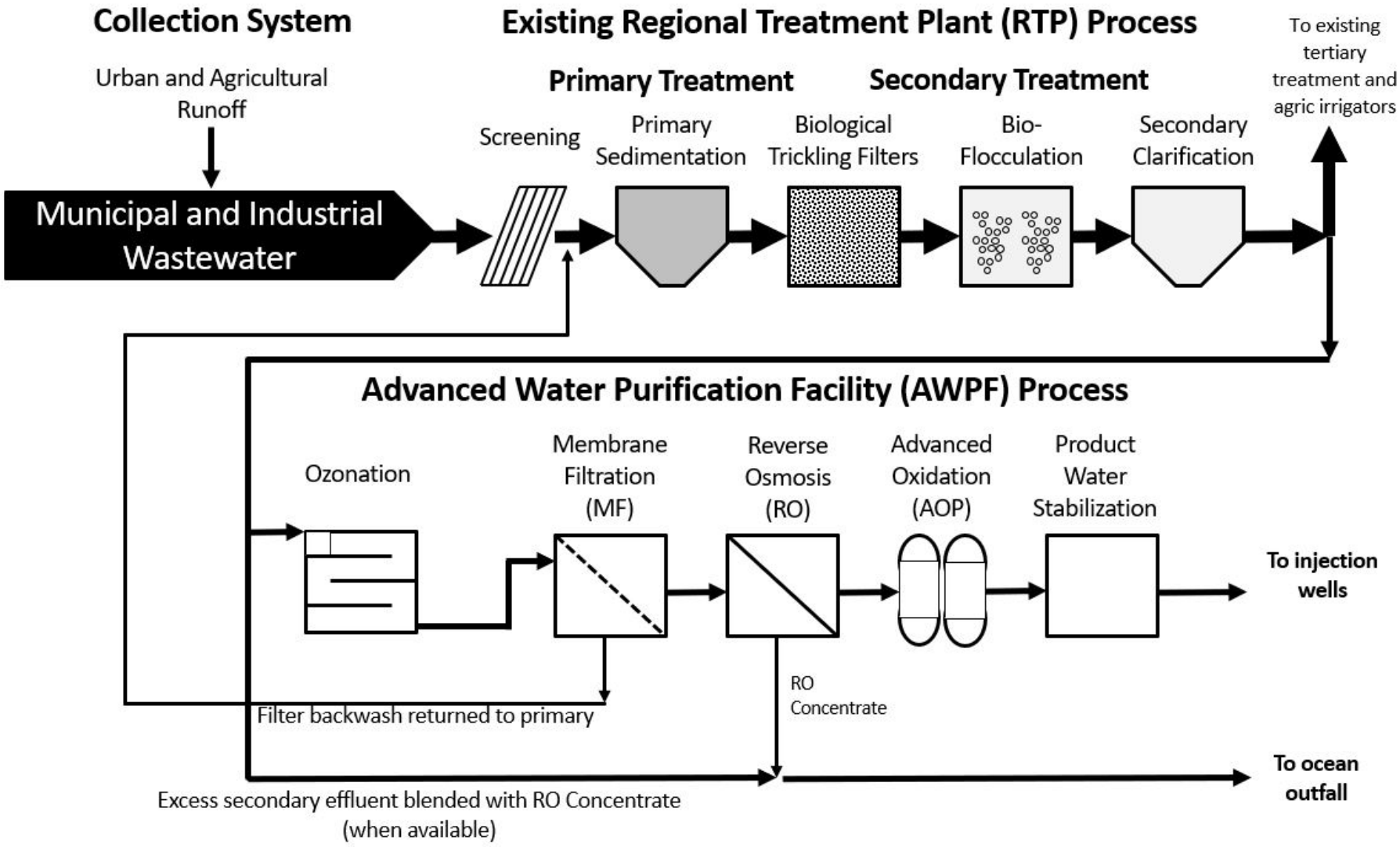
ATTACHMENT B – MAP OF WWTP (WITH MONITORING LOCATIONS IDENTIFIED)



ATTACHMENT B - REGIONAL MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the 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 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 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 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. § 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. § 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, subchapter N. 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. 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 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, subchapter N, 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. 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. 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. § 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, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Central Coast Water Board or State 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 to the Central Coast Water Board permitting staff and the MBNMS 24-hour emergency phone number (831-236-6797) orally within 24 hours from the time the Discharger becomes aware of the circumstances for spills into MBNMS. A report shall also be provided to the Central Coast Water Board 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).)

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. § 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. § 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

A. Central Coast Standard Provision – Prohibitions

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

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

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

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

5. Introduction of pollutants into the collection, treatment, or disposal system by 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 Provision – Provisions

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

2. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.

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

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

5. 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; and,

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

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

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

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

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

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

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

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

9. Safeguards shall be provided to ensure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operative 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,” or “bypass,” or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered).

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

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

11. 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 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 Board. Production and use of recycled water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Code of Regulations and Chapter 7, Division 7, of the CWC An engineering report pursuant to section 60323, Title 22, of the California Code of Regulations is required and a waiver or water reclamation requirements from the Central Coast 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 Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions I.G.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions I.G.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the State Water Board for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Board and the State 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 the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.

3. The "Discharger" shall file a report of waste discharge at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.

4. Within 120 days after the discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Central Coast Water Board. The report shall include:

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

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

In addition to complying with Federal Standard Provision – Reporting V.B., the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

5. All "Dischargers" shall submit reports electronically to the:

State Water Board's California Integrated Water Quality System (CIWQS) database:

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

In addition, "Dischargers" with designated major discharges shall submit a copy of each document to: USEPA, Region 9's Discharge Monitoring Report (NetDMR) database:

https://netdmr.epa.gov/netdmr/public/login.htm

Other correspondence may be sent to the Central Coast Region at:

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 specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action II.C.

7. Except for data determined to be confidential under CWA §308 (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of USEPA. 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 (in CIWQS) 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 limits 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 Resources Control Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Program."

E. Central Coast Standard Provisions – General Pretreatment Provisions

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

a. By the date specified therein;

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

F. Central Coast Standard Provision – Enforcement

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed $5,000 per day.

2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

G. Central Coast Standard Provisions – Definitions (Not otherwise included in Attachment A to this Order)

1. A “composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.

2. “Daily Maximum” limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples” except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a “grab sample”.

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

4. “Duly Authorized Representative" is one where:

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

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

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

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

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

7. "Incompatible wastes” are:

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

b. Wastes which will cause corrosive structural damage to treatment works 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 which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;

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

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

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

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

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

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

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

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

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

where "C" (in mg/L) is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" (in MGD) is the measured daily flowrate or the average of measured daily flow rates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph G.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.

12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision G.10, above, using the "six-month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.

13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.

14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period.

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

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

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

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

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

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

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

$C_{Effluent}$ Removal Efficiency (%) = 100 x (1 – $C_{effluent}$ / $C_{influent}$)

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

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

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

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

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

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

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

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

24. “Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water 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 22151. Order by NTIS No. PB-273 535/5ST.)*
4. *NPDES Compliance Sampling Manual, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal* Center, CO 80225.)

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

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

F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 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 1 of the California Ocean Plan (2015) 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 with a domestic component (this excludes hauled saline wastes) prior to treatment and following all significant inputs to the collection system or to the headworks of untreated wastewater and inflow and infiltration where representative samples of wastewater influent can be obtained.
--	INF-002	Influent saline waste via haulers to the saline waste storage facility prior to blending with secondary effluent as applicable.
--	INT-001	Influent water to the SVRP.
--	INT-002	Filtered effluent prior to disinfection at the SVRP.
002	REC-001	Location where representative sample of final disinfected tertiary recycled water can be collected at the SVRP (prior to storage).
--	EFF-001[1]	Location where representative effluent sample may be collected. This includes the total component of RO concentrate, hauled saline wastes and secondary effluent that will be discharged through the ocean outfall, after treatment and before contact with receiving water (final effluent sampling station). Latitude: 36.7075° Longitude: -121.771°
--	EFF-001A	Location where representative secondary effluent sample may be collected prior to commingling with any other waste stream. Latitude: 36.7075° Longitude: -121.771°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001B[1]	The calculated concentrations of effluent after minimum probable initial dilution using concentrations from Monitoring Location EFF-001. Latitude: 36.7075° Longitude: -121.771°
--	RSW-A	Shoreline monitoring station – 900 feet north of the outfall, 1,000 feet offshore. Latitude: 36.7265° Longitude: -121.8119°
--	RSW-B	Shoreline monitoring station – adjacent to the outfall, 1,000 feet offshore. Latitude: 36.72325° Longitude: -121.81185°
--	RSW-C	Shoreline monitoring station – 900 feet south of the outfall, 1,000 feet offshore. Latitude: 36.72018° Longitude: -121.81203°
--	RSW-D	Shoreline monitoring station – 1,800 feet south of the outfall, 1,000 feet offshore. Latitude: 36.7168° Longitude: -121.81203°

[1] The Discharger's outfall and saline waste discharge facilities currently do not allow for aggregate flow metering or sampling of as-discharged combined secondary effluent and saline wastes at high secondary effluent flows (during wet season when recycling is not being implemented) above what is required for blending to safely meet the prescribed effluent limitations.

During the dry season, when the Discharger is recycling essentially 100% of the wastewater flow, the facility is not capable of aggregate flow metering and sampling prior to entering the outfall, however, the Final Effluent Sampling Station is currently in design and proposed for construction prior to completion of the Pure Water Monterey AWPF. During the dry season, saline waste discharge flows (with minimum required secondary effluent blending) and high volume secondary effluent flows are currently metered separately and are sampled separately via grab samples that are manually composited based on the as-discharged flow proportions entering the outfall.

Effluent monitoring per the Discharger's current facility configuration and effluent monitoring protocol is acceptable until the Final Effluent Sampling Station is constructed to facilitate year-round sampling and flow metering of combined saline waste, RO concentrate, and secondary effluent.

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

The Discharger shall monitor the untreated wastewater at Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring at INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MGD	Metered or Calculated[1]	Daily
Instantaneous Maximum Flow	MGD	Metered or Calculated[1]	Daily
Mean Daily Flow	MGD	Metered or Calculated[1]	Monthly
$CBOD_5$	mg/L	24-hr Composite	Weekly
TSS	mg/L	24-hr Composite	Weekly

Pretreatment Requirements[2], [3]	--	--	--

[1] Metered at the treatment facility headworks or calculated based on the summation of collection system pump station flow metering which is more accurate at low flow rates.

[2] Those pollutants identified in Table 1 of the Ocean Plan (2015). 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 conduct analyses using sufficiently sensitive methods, as described in section X.B.4 of the MRP.

[3] See section VI.C.5.b of the Order and section IX.C of the MRP.

B. Monitoring Location INF-002

1. The Discharger shall monitor saline waste delivered to the facility at Monitoring Location INF-002 (Saline) as follows:

Table E-3. Influent Saline Waste Monitoring at INF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency
Weekly Volume Received	G (gallons)	Metered or Calculated[1]	Daily
Monthly Volume Received	G	Metered or Calculated[1]	Daily
Annual Volume Received	MG	Metered or Calculated[1]	Monthly
Volume Routed to Emergency Storage[1]	G	Metered or Calculated[1]	Weekly
Other	The Discharger shall report all saline waste sampling data collected as part of the saline waste facility operation (i.e., analytical data used to characterize saline waste and determine appropriate blending ratios for discharge).		

[1] Sludge holding lagoons and drying beds or other storage as noted on the monitoring reports.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor effluent discharged at Discharge Point 001 at Monitoring Location EFF-001 as follows.

Table E-4. Effluent Monitoring at EFF-001[1]

Parameter	Units	Sample Type[2]	Minimum Sampling Frequency
Daily Flow[3]	MGD	Metered or Calculated	Daily
Instantaneous Max Flow[3]	MGD	Metered or Calculated	Daily
Maximum Daily Flow[3]	MGD	Metered or Calculated	Monthly
Mean Daily Flow[3]	MGD	Calculated	Monthly
pH	pH Units	Grab	Daily
Total & Fecal Coliform[5],[6]	MPN/100mL	Grab	3X/Permit Term [4]
Enterococci Organisms[5],[7]	MPN/100mL	Grab	3X/Permit Term[4]

Parameter	Units	Sample Type[2]	Minimum Sampling Frequency
Temperature	°F	Measured[8]	Weekly
Settleable Solids	mL/L/hr.	Grab	Weekly
Total Residual Chlorine[9]	mg/L	Continuous	4/Year
Turbidity	NTUs	Grab	Weekly
Oil and Grease	mg/L	Grab	Weekly
Orthophosphate	mg/L	Grab	Monthly
Ammonia, Total (as N)	mg/L	Grab	Monthly
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly
Urea	mg/L	Grab	Monthly
Silicate	mg/L	Grab	Monthly
Conductivity	*µS*/cm	Grab	Monthly[10]
Sodium	mg/L	Grab	4/Year[10], [11]
Chloride	mg/L	Grab	4/Year[10], [11]
Iron	mg/L	Grab	4/Year[10], [11]
Magnesium	mg/L	Grab	4/Year[10], [11]
Hardness	mg/L	Grab	4/Year[10], [11]
Cyanide, Total (as CN)	µg/L	24-hr composite	4/Year[10], [11]
Acute Toxicity[12]	"Pass"/"Fail" (Test of Significant Toxicity)[13]	Grab	4/Year[10], [14]
Chronic Toxicity[12]	"Pass"/"Fail" (Test of Significant Toxicity)[13]	Grab	4/Year[10], [14]
Ocean Plan Table 1 Metals[15]	µg/L	24-hr composite [16] [17]	4/Year[10], [14]
Ocean Plan Table 1 Pollutants	µg/L	24-hr composite [15] [16] [17]	4/Year[10], [14]
Dissolved Oxygen	mg/L	Grab	3x / Permit Term[19]
Nitrite Plus Nitrate (as N)	mg/L	Grab	Monthly
Total Kjeldahl Nitrogen (TKN)	mg/L	Grab	Monthly
Phosphorus (Total)	mg/L	Grab	3x / Permit Term[19]
Remaining Priority Pollutants[18]	µg/L	24-hr composite [15] [16] [17]	3x / Permit Term[19]

[1] The Discharger shall report monitoring results without dilution calculation. Effluent sampling per the Discharger's current saline waste and outfall facility configuration and sampling protocols is acceptable until the Final Effluent Sampling Station is constructed to facilitate year-round sampling and flow metering of combined saline waste, RO concentrate, and secondary effluent.

[2] Effluent sampling per the Discharger's current configuration and sampling protocols is acceptable until the brine waste disposal facility is upgraded to handle anticipated increases in brine flows and facilitate year-round blended secondary effluent and brine waste monitoring (see Table E-1).

[3] 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. Individual reporting for secondary effluent and saline waste effluent flows are required along with as-discharged combined flow for blended secondary effluent and saline waste. The calculation of combined effluent flow per the Discharger's current saline waste and outfall facility configuration is acceptable until the brine waste disposal facility is upgraded to handle anticipated increases in brine flows and facilitate year-round blended secondary effluent and brine waste flow metering (see Table E-1).

[4] Weekly total coliform, fecal coliform, and enterococcus effluent monitoring apply if the Executive Officer concludes from a bacterial assessment (V.A.1 of the Order) that the discharge consistently exceeds the Receiving Water Limitation of the Order. If weekly sampling is not required the Discharger must monitor total coliform in the effluent a minimum of three times as required for permit renewal EPA Form 2A, Part A. A.12.

[5] For all bacterial analyses, sample dilutions should be performed so the range of bacterial density values extends from 200 to 160,000 /100 mL. The detection methods used for each analysis shall be reported with the results of the analysis.

[6] Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 C.F.R. part 136 (revised edition of May 14, 1999), unless alternate methods have been approved in advance by U.S. EPA pursuant to 40 C.F.R. part 136.

[7] 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 by the Central Coast Water Board to be appropriate.

[8] Until the new Final Effluent Sampling Station is constructed to handle the anticipated increases in saline flows and facilitate year-round blending of RO concentrate, saline waste, and secondary effluent (see Table E-1), saline waste samples shall be collected per a minimum weekly sampling frequency and be manually composited per the Discharger's current sampling protocols.

[9] The Discharger is not required to disinfect whole effluent prior to discharge and currently does not do so. However, the Discharger is required to monitor for chlorine residual four times per year as part of the Ocean Plan Table 1 Pollutants monitoring. If disinfection is implemented, daily monitoring for total chlorine residual will be required.

[10] The Discharger shall ensure that sampling is conducted so that actual discharges from each concentrate waste dilution ratio range are represented by at least one sample per calendar year. Sampling shall correspond to the four different Dm values within the calendar year: 145, 259, 388, and 473. The Dm values are determined from the concentrate waste dilution ratio as described in footnote 3 of Table E-7. If a Dm does not occur within the calendar year the Discharger is not responsible for monitoring at that Dm, but must still monitor four times within the calendar year.

[11] The frequency shall remain at 4/year for as long as the permit is in effect.

[12] Whole effluent, acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V. of this Monitoring and Reporting Program.

[13] For compliance determination, chronic and acute toxicity results shall be reported as "Pass" or "Fail." For monitoring purpose only, chronic and acute toxicity results shall also include "Percent Effect."

[14] After the first year, the Central Coast Water Board and MBNMS will evaluate results and may notify the Discharger, in writing, that the sample frequency may be reduced to semi-annually during days when Dms, specified by the Central Coast Water Board, apply. Until the Permitted receives such written notice from the Central Coast Water Board, the required frequency will remain at 4/year, representative of all four Dm conditions.

[15] For those metals (Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, and Zn) with applicable water quality objectives established by Table 1 of the Ocean Plan analysis shall be for total recoverable metals.

[16] Procedures, calibration techniques, and instrument/reagent specifications shall conform to 40 C.F.R. part 136 and applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III. The Discharger shall instruct its analytical laboratory to establish calibration standards so that the Minimum Levels reflect sufficiently sensitive methods as described in section X.B.4 of this MRP. For Ocean Plan Table 1 parameters, the Discharger shall ensure its analytical laboratory uses the MLs presented in Ocean Plan Appendix II as the lowest calibration standards. The Discharger shall select the lowest ML necessary to enable comparison with Ocean Plan objectives. If effluent limitations are less than the lowest ML, then the Discharger shall use the lowest ML.

[17] In order to collect representative samples from each of the 4 Dms 24-hour composite samples may be collected to monitor Ocean Plan and Remaining Priority Pollutants. All PCB congeners shall be reported in addition to Aroclors. The Discharger shall utilize the integrative high-volume water sampling (IHVWS) such as SPMD or those deployed by CCLEAN to meet the CCLEAN monitoring obligations.

[18] The "Remaining Priority Pollutants" (see Table E-5 below) consist of the priority pollutants listed in Part D of EPA Form 3510-2A (Rev. 1-99) that currently do not have ocean criteria (water quality objectives) per Table 1 of the Ocean Plan. A complete EPA Form 3510-2A is required for all new and renewal NPDES permit applications pursuant to 40 C.F.R. § 122.21. Expanded Effluent Testing Data per Part D of EPA Form 3510-2A is required for all treatment works with design flows greater than or equal to 1.0 MGD or with a pretreatment program (or required to have a pretreatment program), or otherwise required by the permitting authority to provide the data.

Table E-5. Remaining Priority Pollutants

Parameter
Volatile Organic Compounds
Bromoform
Chloroethane
2-Chloroethyl Vinyl Ether
1,1-Dichloroethane
Trans-1,2-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropylene
Methyl Bromide
Methyl Chloride
Acid Extractable Compounds
P-Chloro-m-Cresol
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
4,6-Dinitro-o-Cresol
2-Nitrophenol
4-Nitrophenol
Pentachlorophenol
Phenol
Base-Neutral Compounds
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)Anthracene
Benzo(a)Pyrene
3,4-Benzo-Fluoranthene
Benzo(ghi)Perylene
Benzo(k)Fluoranthene
4-Bromophenyl Phenyl Ether
Butyl Benzyl Phthalate
2-Chloronaphthalene
4-Chlorophenyl Phenyl Ether
Chrysene
Di-n-Octyl Phthalate
Dibenzo(a,h) Anthracene
1,4-Dichlorobenzene
2,6-Dinitrotoluene
Fluorene

Parameter
Indeno(1,2,3-CD)Pyrene
Naphthalene
Phenanthrene
Pyrene
1,2,4-Trichlorobenzene

[19] At a minimum, effluent testing data must be based on at three pollutant scans with one sample on days with Dms of 145, 259, and 388, so that a total of three samples are collected and are representative of these three Dms. The effluent testing must be no more than four and one-half years old at the time the re-application submittal is due.

B. Monitoring Location EFF-001A

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

Table E-6. Effluent Monitoring at EFF-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow[1]	MGD	Metered or Calculated	Daily
$CBOD_5$[2]	mg/L	24-hr Composite	Weekly
Total Organic Carbon (TOC)	mg/L	24-hr Composite	Weekly
TSS[2]	mg/L	24-hr Composite	Weekly
pH	pH Units	Metered	Weekly

[1] The Discharger shall report the daily average flow for each day.
[2] The Discharger shall also report in units of lbs/day.

C. Monitoring Location EFF-001B

1. The Discharger shall calculate the Concentrate Waste Dilution Ratio and commingled RO concentrate, hauled saline waste, and secondary effluent quality at Monitoring Location EFF-001B as follows:

Table E-7. Effluent Monitoring at EFF-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily AWPF RO Concentrate Flow[1]	MGD	Metered or Calculated	Daily
Daily Total Flow[1]	MGD	Metered or Calculated	Daily
Daily Hauled Saline Waste Flow[1]	MGD	Metered or Calculated	Daily
Concentrate Waste Dilution Ratio[2]	--	Calculated	Daily
Dm Value[3]	--	Report	Daily
Total Residual Chlorine[4]	mg/L	Calculated[5]	Daily
Ammonia	mg/L	Calculated[5]	Monthly
Cyanide	µg/L	Calculated[5]	4/Year [6]
Total & Fecal Coliform	MPN/100mL	Calculated	3X/Permit Term
Enterococci Organisms	MPN/100mL	Calculated	3X/Permit Term
Remaining Ocean Plan Table 1 Metals[8]	µg/L	Calculated[5]	4/Year [7]
Ocean Plan Table 1 Pollutants	µg/L	Calculated[5]	4/Year [7]

[1] The Discharger shall report the daily average flow for each day a corresponding parameter is reported.

[2] Concentrate Waste Dilution Ratio $= \frac{AWPF\ RO\ Concentrate\ (MGD) + Hauled\ Saline\ Waste\ (MGD)}{Total\ Effluent\ (MGD)}$

[3] Dm corresponds to the Concentrate Waste Dilution Ratio as follows:

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	Dm for Compliance with Ocean Plan Table 1 Parameters (except acute toxicity)	Dm for Compliance with Acute Toxicity Limit
0-0.127	145	14.5
0.128 – 0.421	259	25.9
0.422 – 0.744	388	38.8
≥ 0.745	473	47.3

[4] When applicable – the Discharger is not required to disinfect whole effluent prior to discharge and currently does not do so. However, the Discharger is required to monitor for chlorine residual semiannually per the Ocean Plan Table 1 Pollutants monitoring.

[5] The Co shall be calculated and reported using the equation below:

$$Co = \frac{Ce + DmCs}{1 + Dm}$$

where:

Co = the concentration at the completion of initial dilution to be compared to effluent limitations in Table 6 of this Order for compliance determination.
Ce = effluent concentration reported for Monitoring Location EFF-001.
Cs = background seawater concentration provided in Table 3 of the 2015 Ocean Plan (with all metals expressed as total recoverable concentration, µg/L
Dm = the minimum probable initial dilution corresponding to Concentrate Waste Dilution Ratio in footnote 3.

For compliance determination with effluent limitations, the Discharger shall report the calculated instantaneous maximum, daily maximum, and 6-month median results for comparison to effluent limitations.

[6] The Discharger shall ensure that sampling is conducted so that actual discharges from each Concentrate Waste Dilution ratio range are represented by at least one sample per calendar year. Sampling shall correspond to the four different Dm values within the calendar year: 145, 259, 388, and 473. The Dm values are determined from the Concentrate Waste Dilution ratio as described in footnote 3. If a Dm does not occur within the calendar year the Discharger is not responsible for monitoring at that Dm, but must still monitor four times within the calendar year.

[7] After the first year, the Central Coast Water Board and MBNMS will evaluate results and may notify the Discharger, in writing, that the sample frequency may be reduced to semi-annually during days where Dms, specified by the Central Coast Water Board, apply. Until the Permitted receives such written notice from the Central Coast Water Board, the required frequency will remain at 4/year, representative of all four Dm conditions.

[8] For those metals (Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, and Zn) with applicable water quality objectives established by Table 1 of the Ocean Plan analysis shall be for total recoverable metals. If analyzing for total chromium to demonstrate compliance with the hexavalent chromium objective, the Discharger shall analyze for total recoverable chromium.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Whole Effluent Toxicity (WET) Testing Requirements

The WET refers to the overall aggregate toxic effect to aquatic organisms from all pollutants contained in a facility's wastewater (effluent). The control of WET is one approach this Order uses to control the discharge of toxic pollutants. WET tests evaluate the 1) aggregate toxic effects of all chemicals in the effluent including additive, synergistic, or antagonistic effects; 2) the effects of unmeasured chemicals in the effluent; and 3) variability in bioavailability of the chemicals in the effluent.

Monitoring to assess the overall toxicity of the effluent is required to answer the following questions:

(1) Does the effluent comply with permit effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water?

(2) If the effluent does not comply with permit effluent limitations for toxicity, is the observed toxicity causing risk to aquatic life?

(3) If the effluent does not comply with permit effluent limitations, is the observed toxicity caused by one or more pollutants that are measured or unmeasured?

B. Acute Toxicity

1. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. Sufficient sample volume shall also be collected during accelerated monitoring for subsequent TIE studies, if necessary. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

2. Discharge In-stream Waste Concentration (IWC) for Acute Toxicity

The acute IWC is calculated by dividing 100 percent by the acute toxicity Dm+1. The acute toxicity Dm corresponds to the Concentrate Waste Dilution Ratio as described in section VI.C.6.b of the Order multiplied by 0.1, and shall be based on flows recorded on the first day of testing. The acute toxicity IWC is one of the values in the table below.

Table E-8. U.S. Instream Waste Concentrations Associated with Dm[1]

Dm for Compliance with Ocean Plan Acute Toxicity	Instream Waste Concentration (%)
14.5	6.4
25.9	3.7
38.8	2.5
47.3	2.0

[1] Minimum probable initial dilution (expressed as parts seawater per part wastewater) multiplied by 0.1, according to Equation 2 in section III.C.4.b of the 2015 California Ocean Plan.

3. Acute Toxicity Test Species and Methods

Species and short-term test methods for estimating the acute toxicity of NPDES effluents are generally found in the fifth edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR 136).

For this Order/Permit, the Discharger shall conduct 96-hour static renewal toxicity tests using a standard marine test species as specified in EPA-821-R-02-012 and as noted in the following table.

Table E-9. Approved Tests – Acute Toxicity (TUa)

Species	Scientific Name	Effect	Test Duration
Shrimp	*Holmesimysis costata*	Survival	96 hours
Shrimp	*Mysidopsis bahia*	Survival	96 hours

Species	Scientific Name	Effect	Test Duration
Silversides	*Menidia beryllina*	Survival	96 hours
Sheepshead Minnow	*Cyprinodon variegatus*	Percent Survival	96 hours

4. Quality Assurance and Additional Requirements

The Discharger shall perform toxicity tests on final effluent samples. 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, the sample shall be retaken and retested within 14 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 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 (sections VI.C.2.a of this Order), or implement other measures.

5. Accelerated Monitoring and TRE Initiation Toxicity Testing and TRE/TIE Process for Acute Toxicity

When an effluent limitation for acute toxicity is exceeded during regular whole effluent toxicity (WET) monitoring, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications of this permit (section VI.C.2.b). As specified in Section VI.C.2.b, the Discharger shall initiate accelerated monitoring within 14 days of notification by the laboratory of the exceedance. The Discharger shall initiate a TRE to address effluent toxicity if any WET test result exceeds the acute effluent limit during accelerated monitoring, as specified in section VI.C.2.b.i.(e).

C. Chronic Toxicity

1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

The chronic IWC is calculated by dividing 100 percent by the dilution ratio, Dm. The Dm will be based on the Concentrate Waste Dilution Ratio as described in section VI.C.6.b of the Order and shall be based on flows recorded on the first day of testing. The chronic toxicity IWC will be one of values in the table below.

Table E-10. U.S. Instream Waste Concentrations Associated with Dm[1]

Dm for Compliance with Ocean Plan Table 1 Parameters	Chronic Toxicity Instream Waste Concentration (%)
145	0.69
259	0.39
388	0.26
473	0.21

[1] Minimum probable initial dilution expressed as parts seawater per part wastewater.

2. Chronic Marine Species and Test Methods

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-821-R-02-104 or *Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Projec*t, 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.

In accordance with the 2015 Ocean Plan, Appendix III, Standard Monitoring Procedures, the Discharger shall use the critical life stage toxicity tests specified in Table E-11 to measure chronic toxicity. Other species or protocols may be added to the list after the State Water Board review and approval.

Table E-11. Approved Tests – Chronic Toxicity

Species	Effect	Tier[1]	Reference[2]
Giant Kelp, *Macrocystic pyrifera*	Percent germination; germ tube length	1	a, c
Red abalone, *Haliotis rufesens*	Abnormal shell development	1	a, c
Oyster, *Crassostrea gigas*; Mussels, *Mytilus spp*	Abnormal shell development percent survival	1	a, c
Urchin, *Strongylocentrotus purpuratus*; Sand dollar, *Dendraster excentricus*	Percent normal development	1	a, c
Urchin, *Strongylocentrotus purpuratus*; Sand dollar, *Dendraster excentricus*	percent fertilization	1	a, c
Shrimp, *Holmesimysis costata*	Percent survival; growth	1	a, c
Shrimp, *Mysidopsis bahia*	Percent survival; growth; 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 Central Coast 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. Peltier, 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 Marine 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.

3. Species Sensitivity Screening

To select the most sensitive species for the term of this Order, species sensitivity screening shall be performed one time for the low and high concentrate waste dilution scenarios when effluent Dms of 145 and 473 apply (see section VI.C.6.b of the Order). For each screening event, the Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using a fish, an invertebrate, and an alga species, to be selected from the list of approved tests referenced in Table E-11. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge during that given month. For those tests that require collection of additional renewal samples (as specified in the listed test method protocols), a second and third sample shall be collected. If the results of all three species for both dilution scenarios is "Pass," then the species that exhibited the highest "Percent Effect" regardless of dilution scenario shall be used for routine monitoring during this Order cycle. If the results of all three species for both dilution scenarios results in a single "Fail," then that species resulting in the Fail shall be used for routine monitoring during this Order cycle. Likewise, if the results of all three species for both dilution scenarios results in two or more species with a "Fail," then the species that exhibits the highest "Percent Effect" shall be used for routine monitoring during this Order cycle.

The species used to conduct routine chronic toxicity effluent monitoring shall be the most sensitive species from the most recent species sensitivity screening. To select the most sensitive species for the term of the next Order, rescreening shall be conducted prior to permit reissuance and the results submitted with the report of waste discharge.

Toxicity results obtained during the species screening may be used to evaluate compliance with the chronic toxicity maximum daily effluent limitation (MDEL). During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

D. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manuals previously referenced. Additional requirements are specified below.

1. The Discharger shall perform toxicity tests on final effluent samples. 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.

2. 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, the sample shall be retaken and retested within 14 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.

3. The discharge is subject to determination of "Pass" or "Fail" from an acute or chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is:

Mean discharge IWC response ≤0.75 × Mean control response

A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as:

((Mean control response - Mean discharge IWC response) ÷ Mean control response) × 100

Acute and Chronic WET testing is to be performed with only two test concentrations, the laboratory control and a single effluent treatment (the IWC). As discussed in Fact Sheet section IV.C.6, evaluation of concentration-response does not apply to single-concentration (IWC) tests where the TST is applied.

4. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method manuals (Tables E-9 and E-11), the test should be declared invalid, then the Discharger must resample and re-test within 14 days of test termination.

5. Dilution water and control water, including brine controls, shall be uncontaminated natural water, as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

6. Monthly reference toxicant testing is sufficient.

7. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized by the Executive Officer.

E. Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail."

When an effluent limitation for acute or chronic toxicity is exceeded during regular WET monitoring, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications of this permit (Section VI.C.2.b). As specified in Section VI.C.2.b., the Discharger shall notify the Central Coast Water Board and U.S. EPA Region 9 and initiate accelerated monitoring within 14 days of notification by the laboratory of the exceedance. The Discharger shall initiate a TRE to address effluent toxicity if any WET test result exceeds the acute or chronic effluent limit during accelerated monitoring, as specified in Section VI.C.2.a.ii.

F. Toxicity Reporting

1. The Discharger shall include a full report of toxicity test results with the regular quarterly 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. Summary water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

3. 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.

4. If the TRE Action Plan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the monitoring report for the time period in which the investigation conducted under the TRE Action Plan occurred.
5. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
6. Graphical plots and tables clearly showing the laboratory's performance for the reference toxicant for the previous 20 tests.
7. Any additional quality assurance/quality control (QA/QC) documentation or any additional chronic toxicity-related information, upon written request from the Central Coast Water Board and/or U.S. EPA, Region 9.
8. The report shall also include:
   a. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the acute and chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar quarter shall be reported on the SMR due date specified in Table E-16.
   b. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS

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

A. MONITORING LOCATIONS REC-001

1. When producing recycled water, the discharger shall monitor recycled water at location REC-001 as follows.

Table E-12. 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
Biochemical Oxygen Demand, 5-day	mg/L	24-hr Composite	Weekly
Total Non-Filterable Residue (Suspended Solids)	mg/L	24-hr Composite	Weekly
Total Dissolved Solids	mg/L	24-hr Composite	Weekly
pH	standard units	Grab	1/Day
Settleable Solids	ml/l/hr	Grab	Daily
Chlorine Residual[2]	mg/L	Metered	Continuous

[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).

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

2. In the event the Producer is unable to comply with the conditions of the water recycling requirements and prohibitions, the Producer 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 Producer 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 Producer or the Producer'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 Producer specified in Table E-12 by date, time, type of sample, and station.

B. MONITORING LOCATIONS INT-001, INT-002

1. The Discharger shall monitor water at the SVRP as follows:

Table E-13. SVRP Process Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Location
Influent Loading Rate[1]	gpm/ft^2	Metered	Continuous	INT-001
Turbidity[2]	NTU	Metered	Continuous	INT-002

[1] Report daily maximum values. Influent loading rate to filters shall be measured.
[2] Report daily maximum and daily mean values. Turbidity samples shall be obtained after filtration, but prior to disinfection.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Bacteria Monitoring – Monitoring Locations RSW-A, RSW-B, RSW-C, and RSW-D

Bacteria monitoring shall be conducted to assess bacteriological conditions in areas used for body contact recreation (e.g., swimming) and to assess conditions of aesthetics for general recreation use (e.g., picnicking, boating). Bacteria monitoring shall be conducted along the 30-foot contour at Monitoring Locations RSW-A, RSW-B, RSW-C, and RSW-D. Bacteria monitoring shall be conducted in accordance with the following table. Latitude and Longitude shall be provided for all stations when reporting.

Table E-14. Triggered Shoreline Bacteria Monitoring Schedule

Parameter	Units	Sampling Station	Sampling Frequency
Total and Fecal Coliform Bacteria[1], [2], [3],	MPN/100ml	RSW-A, B, C, D	Monthly
Enterococcus Bacteria[1], [3], [4]	MPN/100ml	RSW-A, B, C, D	Monthly
Visual Monitoring[5]	Narrative	RSW-A, B, C, D	Monthly

[1] For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 2 to 16,000 MPN/100ml. The detection methods used for each analysis shall be reported with the results of the analysis.

[2] Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 C.F.R. part 136, unless alternate methods have been approved in advance by U.S. EPA pursuant to 40 C.F.R. part 136.

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

[4] 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 by the Central Coast Water Board (and approved by U.S. EPA) to be appropriate.

[5] Visual monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), antecedent rainfall (7-day), sea state, and tidal conditions (e.g., high, slack, or low tide). Observations of water discoloration, floating oil and grease, turbidity, odor, material of sewage origin in the water or on the beach, and temperature (°C) shall be recorded and reported.

These requirements also satisfy the CCLEAN 30-foot contour bacteriological monitoring requirements noted in Table E-15, below.

IX. OTHER MONITORING REQUIREMENTS

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

1. The Discharger shall participate in the implementation of the CCLEAN Regional Monitoring Program in order to fulfill receiving water compliance monitoring requirements and support the following CCLEAN Program objectives.

a. Obtain high-quality data describing the status and long-term trends in the quality of nearshore waters, sediments, and associated beneficial uses.

b. Determine whether nearshore waters and sediments are in compliance with the Ocean Plan.

c. Determine sources of contaminants to nearshore waters.

d. Provide legally defensible data on the effects of wastewater discharges in nearshore waters.

e. Develop a long-term database on trends in the quality of nearshore waters, sediments, and associated beneficial uses.

f. Ensure that the nearshore component database is compatible with other regional monitoring efforts and regulatory requirements.

g. Ensure that nearshore component data are presented in ways that are understandable and relevant to the needs of stakeholders.

2. Monitoring requirements of the CCLEAN Program in effect as of the date of this order are outlined in the following table. The CCLEAN Quality Assurance Project Plan (QAPP) for each year will be submitted for staff approval prior to initiation of CCLEAN sampling. A detailed technical study design description, including specific location of sampling sites and a description of the specific contents of the CCLEAN Annual Report, shall be provided as a component of the CCLEAN QAPP. Any year-to-year modifications to the program (including implementation of subsequent program phases) shall be identified in the QAPP and/or Annual Report.

Table E-15. CCLEAN Monitoring Requirements

Sample Matrix	Sampling Frequency	Sampling Technique	Parameter Sampled	Applicable Water Quality Stressors and Program Objectives
Effluent – Santa Cruz, Watsonville, Monterey One Water, Carmel Area Wastewater District) in effluent	Two times per year (wet and dry season)	30-day flow proportioned samples using automated pumping and solid-phase-extraction (particle filter + XAD resin)	PAHs DDTs Dieldrin Chlordanes PCBs Dioxins/Furans PBDEs	Sources, loads, trends, effects and permit compliance for: POPs
		Two-day, four-liter composites	Pyrethroids Fipronils Neonicotinoids	Trends of: Emerging contaminants of concern
	Monthly	Grab	Ammonia Nitrate Silica Ortho-Phosphate Urea	Sources, loads, trends and permit compliance for: Nutrients
Influent – Watsonville	Once per year (dry season)	Same as effluent	Same as effluent	Efficiency of: POP removal
Rivers – San Lorenzo	Two times per year (wet and dry season)	30-day flow proportioned samples using automated pumping and solid-phase-extraction (particle filter + XAD resin)	PAHs DDTs Dieldrin Chlordanes PCBs PBDEs	Sources, loads, trends, effects and permit compliance for: POPs
Rivers – San Lorenzo Pajaro Salinas Carmel		Two-day, four-liter composites	Pyrethroids Fipronils Neonicotinoids	Trends of: Emerging contaminants of concern
		Grab	Ammonia Nitrate Silicate Ortho-Phosphate	Effects of: Nutrients
Monterey Bay – (Receiving water) Santa Cruz Watsonville MOW	Monthly or weekly, as required by each NPDES permit	Grab	Total coliform Fecal coliform *Enterococcus*	Sources, trends, effects and permit compliance for: Fecal Indicator Bacteria (FIB) pathogen indicators

Sample Matrix	Sampling Frequency	Sampling Technique	Parameter Sampled	Applicable Water Quality Stressors and Program Objectives
Monterey Bay – (Open water) North South	Two times per year (wet and dry season)	30-day flow proportioned samples using automated pumping and solid-phase-extraction (particle filter + XAD resin)	PAHs	Sources, loads, trends, effects and permit compliance for: POPs
			DDTs	
			Dieldrin	
			Chlordanes	
			PCBs	
			PBDEs	
		Grab	TSS	Effects of: Nutrients and FIBs
			FIBs	
			Ammonia	
			Nitrate	
			Silica	
			Ortho-Phosphate	
			Urea	
	Every 5 years	Database satellite ocean color imagery	Chlorophyll *a*	
Sediments – Six sites along the 80m contour in Monterey Bay, Santa Cruz Inner Harbor, Moss Landing Harbor	Annually in the fall	Sediment Grab	DDTs	Status, effects and alert level comparisons for POPs
			Dieldrin	
			Chlordanes	
			PCBs	
			PBDEs	
			Grain size	
			TOC	
Six sites along the 80m contour in Monterey Bay	Every five years in the fall		Benthic infauna	Status and trends of benthic communities
Mussels – Five rocky intertidal sites in Monterey Bay	Annually in the wet season	1 composite of 30-40 mussels	Lipid content	Status, trends, effects and alert level comparisons for: POPs and pathogen indicators
			DDTs	
			Dieldrin	
			Chlordanes	
			PCBs	
			PBDEs	
		1 composite of 30-40 mussels	Fecal indicator bacteria	

B. Biosolids Monitoring, Notification, and Reporting

1. Biosolids Monitoring

a. Biosolids shall be tested for the metals required in 40 C.F.R. section 503.16 (for land application) or section 503.26 (for surface disposal), using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846), as required in 503.8(b)(4), at the following minimum frequencies:

Table E-16. Biosolids Monitoring Frequency

Volume (dry metric tons)[1]	Sampling and Analysis Frequency[2]
0-290	Once per year
290-1,500	Once per quarter
1,200-15,000	Once per 60 days
>15,000	Once per month

[1] For accumulated, previously untested biosolids, the Permittee shall develop a representative sampling plan, including number and location of sampling points, and collect representative samples.

[2] Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis. Biosolids to be land applied shall be tested for organic-N, ammonium-N, and nitrate-N at the frequencies required above.

b. Prior to land application, the Permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 C.F.R. section 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Significantly/Further Reduce Pathogens," the Permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliforms and/or pathogens, samples must be drawn at the frequency in Table E-14 above. For fecal coliform, at least seven grab samples must be drawn during each monitoring event and a geometric mean calculated from these seven samples.

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

d. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and federal facilities with greater than five million gallons per day (MGD) influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Clean Water Act (as required in the pretreatment section of the permit for POTW's with pretreatment programs). Class 1 facilities and federal facilities greater than five MGD shall test dioxins/dibenzofurans using a detection limit of less than one pg/g at the time of their next priority pollutant scan if they have not done so within the past five years, and once per five years thereafter.

e. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness in accordance 40 C.F.R. part 261.

f. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

g. Biosolids placed in a municipal landfill shall be tested by the Paint Filter Liquids Test (EPA Method 9095) at the frequency in 11 (a) above or more often if necessary to demonstrate that there are no free liquids.

2. Biosolids Notification

The Permittee, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements:

a. Notification of non-compliance: The Permittee shall notify U.S. EPA Region 9, the Central Coast Water Board, and the regional board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall notify U.S. EPA Region 9 and the affected regional boards of the non-compliance in writing within five working days of becoming aware of the non-compliance. The Permittee shall require their biosolids

management contractors to notify U.S. EPA Region 9 and the affected regional boards of any non-compliance within the same timeframes. See Attachment F for Central Coast Water Board contact information.

b. If biosolids are shipped to another State or to Indian Lands, the Permittee must send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Indian Land (the U.S. EPA Regional Office for that area and the State/Indian authorities).

c. For land application: Prior to reuse of any biosolids from this facility to a new or previously unreported site, the Permittee shall notify U.S. EPA and the Central Coast Water Board. The notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier, and site owner and a listing of any state or local permits which must be obtained. The plan shall include a description of the crops or vegetation to be grown, proposed loading rates and determination of agronomic rates. If any biosolids within a given monitoring period do not meet 40 C.F.R. section 503.13 metals concentration limits, the Permittee (or its contractor) must pre-notify U.S. EPA, and determine the cumulative metals loading at that site to date, as required in section 503.12.

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

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

3. Biosolids Reporting

The Permittee shall submit an annual biosolids report to the U.S. EPA CDX e-reporting system and Central Coast Water Board by February 19 of each year for the period covering the previous calendar year. The report shall include:

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

b. Results of all pollutant and pathogen monitoring required in IX.B.1.b of the Monitoring and Reporting Program of this Order. Results must be reported on a 100% dry weight basis for comparison with 40 C.F.R. part 503 limits;

c. Descriptions of pathogen reduction methods and vector attraction reduction methods, including supporting time and temperature data, and certifications, as required in 40 C.F.R. sections 503.17 and 503.27;

d. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and volumes delivered to each.

e. For land application sites, the following information must be submitted by the Permittee, unless the Permittee requires its biosolids management contractors to report this information directly to the U.S. EPA Region 9 Biosolids Coordinator:

i. Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner;

ii. Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, calculated plant available nitrogen;

iii. Crop planted, dates of planting and harvesting;

iv. For any biosolids exceeding 40 C.F.R. section 503.13 Table 3 metals concentrations: the locations of sites where applied and cumulative metals loading at that site to date;

v. Certifications of management practices in section 503.14; and

vi. Certifications of site restrictions in section 503(b)(5).

f. For surface disposal sites:

i. Locations of sites, site operator, site owner, size of parcel on which disposed;

ii. Results of any required groundwater monitoring;

iii. Certifications of management practices in section 503.24; and

iv. For closed sites, date of site closure and certifications of management practices for the three years following site closure.

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

h. For all biosolids temporarily stored, the information required in section 503.20 required to demonstrate temporary storage.

Reports shall be submitted to:

Executive Officer
Central Coast Regional Water Quality Control Board
centralcoast@waterboards.ca.gov

i. All the requirements of 40 C.F.R. part 503 and Title 23 CCR chapter 15 are enforceable by the U.S. EPA and this Regional Board whether or not the requirements are stated in an NPDES permit or any other permit issued to the discharger.

C. Pretreatment Monitoring and Reporting

At least once per year, influent, effluent, and biosolids shall be sampled and analyzed for the priority pollutants identified under Section 307(a) of the Clean Water Act. By March 1st of each year, the Discharger shall submit an annual report to the Regional Board, State Board, and USEPA describing the Discharger's pretreatment activities over the previous calendar

year. In the event that the Discharger is not in compliance 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. This report shall contain, but not be limited to, the following information:

1. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the plant's influent and effluent for those pollutants U.S. EPA has identified under section 307(a) of the Act which are known or suspected to be discharged by industrial users. The Discharger is not required to sample and analyze for asbestos until U.S. EPA promulgates an applicable analytical technique under 40 C.F.R. part 136.

2. Biosolids shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The biosolids analyzed shall be a composite sample of a minimum of twelve discrete samples taken at equal time intervals over the 24-hour period. Wastewater and biosolids sampling and analysis shall be performed a minimum of annually and not less than the frequency specified in the required monitoring program for the plant. The Discharger shall also provide any influent, effluent, or biosolids monitoring data for nonpriority pollutants which the Discharger believes may be causing or contributing to interference, pass-through, or adversely impacting biosolids quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. part 136 and amendments thereto. Biosolids samples shall be collected from the last point in solids handling before disposal. If biosolids are dried on-site, samples shall be composited from at least twelve discrete samples from twelve representative locations.

3. A discussion of upset, interference, or pass-through incidents, if any, at the POTW which the Discharger knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, corrective actions taken and, if known, 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 pass-through, interference, or noncompliance with sludge disposal requirements.

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

5. An updated list of the Discharger'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 limitations that are more stringent than the Federal Categorical Standards. The Discharger shall also list the non-categorical industrial users that are subject only to local discharge limitations. The Discharger 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. section 403.8(f)(2)(vii);

e. On a schedule to achieve compliance (include 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.

6. 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 they were inspected, sampled, or both, and the frequency of these activities at each user; and

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

7. 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 POTW; or

g. Disconnection from discharge to the POTW.

8. Description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's Approved POTW Pretreatment Program, including but not limited to changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.

9. A summary of the annual pretreatment budget, including the costs of pretreatment program functions and equipment purchases.

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

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

12. Reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee if such employee is responsible for overall operation of the POTW. 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/

State Water Resources Control Board
Regulation Unit
P.O. Box 100
Sacramento, CA 95812-0100

US EPA, Region 9
R9Pretreatment@epa.gov

D. Outfall Inspection

The Discharger shall conduct an annual dye study for four years and then conduct a visual (dive) inspection during the fifth year. The dye study and visual inspection results shall summarize the outfall's physical integrity and be included in the applicable Annual Report.

E. MBNMS Spill Reporting

In accordance with Standard Provision VI.E. (Attachment D), within 24 hours, the Discharger shall report all sewage spills under its control that are likely to enter ocean waters, directly to the Monterey Bay National Marine Sanctuary (MBNMS) office at 831-236-6797. A report shall also be provided to the Central Coast Water Board within five days of the time the Discharger becomes aware of the circumstances.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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. The Discharger shall use the current version of the Permittee Entry Template (PET) tool to configure data into the applicable CIWQS Data Format, and shall update that template according to this Order (e.g., add/delete parameters, revise limits, update monitoring locations, etc). Blank versions of the latest PET tool are available at http://www.waterboards.ca.gov/water_issues/programs/ciwqs/chc_npdes.shtml.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, quarterly, semiannual, and annual 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-17. 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 the second month following the month of sampling (e.g., reports for sampling conducted in January are due no later than March 1)
Hourly	Effective Permit date (see Table 3)	Hourly	Submit with monthly SMR
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.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	Submit with monthly SMR
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	First day of the second month following the quarter of sampling (e.g., reports for sampling conducted in the first quarter (Jan 1 – Mar 31) are due no later than May 1)
4 times/year corresponding to each dilution scenario, if it occurs.	Effective Permit date (see Table 3)	Dependent upon concentrate waste dilution ratio	Submit with next monthly SMR
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	First day of the second month following the quarter of sampling (e.g., reports for sampling conducted in the first quarter (Jan 1 – Mar

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
			31) are due no later than May 1)
Annually	January 1 following (or on) permit effective date	January 1 through December 31	Submit with Annual Report (due no later than 1/30)
3 / Permit Term	January 1 following (or on) permit effective date	January 1 through December 31	Submit with Annual Report and permit renewal application Form 2A.

4. Section III.B of the Standard Provisions (Attachment D) includes the standard provisions for test procedures. U.S. EPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. For the purposes of the NPDES program, when more than one test procedure is approved under 40 C.F.R. part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv) apply to the selection of a sufficiently sensitive analytical method for the purposes of monitoring and reporting under NPDES permits, including review of permit applications. A U.S. EPA-approved analytical method is sufficiently sensitive where:

a. The Minimum Level (reported ML, also known as the Reporting Level, or RL) is at or below both the level of the applicable water quality criterion/objective and this Order limitation for the measured pollutant or pollutant parameter; or

b. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

c. The method has the lowest ML of the U.S. EPA-approved analytical methods where none of the U.S. EPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation. The MLs in Ocean Plan Appendix II remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the Ocean Plan. For instance, U.S. EPA Method 1631E for mercury is not currently listed in Ocean Plan Appendix II, but it is published with an ML of 0.5 ng/L that makes it a sufficiently sensitive analytical method. Similarly, U.S. EPA Method 245.7 for mercury is published with an ML of 5 ng/L.

5. 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.

e. Compliance Determination. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and in 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 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 – VI.C of the Order. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

ATTACHMENT F – FACT SHEET

CONTENTS

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 270118002
Discharger	Monterey One Water
Name of Facility	Regional Wastewater Treatment Plant and Advanced Water Purification Facility
Facility Address	14811 Del Monte Boulevard
	Marina, California 93933
	Monterey County
Facility Contact, Title and Phone	Richard L. Gilliam, Interim Plant O&M Manager, (831) 883-1118 x114
Authorized Person to Sign and Submit Reports	Tamsen McNarie, Assistant General Manager, (831) 883-6125
Mailing Address	5 Harris Court, Building D, Monterey, California 93940
Billing Address	5 Harris Court, Building D, Monterey, California 93940
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Producer
Facility Permitted Flow	29.6 MGD (Average Dry Weather Flow [ADWF])[1] 75.6 MGD (Peak Wet Weather Flow [PWWF]) [1]
Facility Design Flow	29.6 MGD (ADWF) [1] 75.6 MGD (PWWF) [1]
Watershed	Lower Salinas Valley HA (309.10)
Receiving Water	Pacific Ocean (Monterey Bay National Marine Sanctuary)
Receiving Water Type	Ocean waters

[1] Based on secondary treatment capacity and hydraulic capacity at the Regional WWTP.

A. The Discharger changed its name from Monterey Regional Water Pollution Control Agency (MRWPCA) to Monterey One Water in June 2017. Monterey One Water (M1W, hereinafter Discharger) is the owner and operator of the Regional Wastewater Treatment Plant (WWTP) and Advanced Water Purification Facility (hereinafter

Facility), a publicly owned treatment works (POTW).

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

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R3-2014-0013 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048551, adopted on May 22, 2014, with an expiration date of July 31, 2019. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on November 21, 2017. The application was deemed complete on December 5, 2017.

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 Facility, which currently serves a population of approximately 279,000, consists of and provides regional wastewater treatment, disposal, and reclamation facilities for the cities of Monterey, Pacific Grove, Del Rey Oaks, Sand City, Marina, and Salinas; the Seaside County Sanitation District; the Castroville, Moss Landing, and Boronda Community Services Districts; and Fort Ord. Each member entity retains ownership and operating/maintenance responsibility for wastewater collection and transport systems up to the point of connection with interceptors owned and operated by the Discharger. Residential, commercial, and industrial wastewater is conveyed to the Facility. The collection system is 100% separate. The Discharger implements a pretreatment program.

The Discharger operates an existing secondary treatment plant and is constructing an advanced water purification facility (AWPF) to be completed by the third quarter of 2019 as part of the Pure Water Monterey project. The project involves treating secondary effluent with the AWPF (see description below) and then injecting this purified recycled water into the Seaside groundwater basin, with subsequent withdrawal for use as a municipal water supply. The AWPF will also provide purified recycled water for landscape irrigation by the Marina Coast Water District. The WWTP also provides secondary treated wastewater for further tertiary treatment and recycling for agricultural irrigation in the northern Salinas valley as part of the Castroville Seawater Intrusion Project. Details on the Regional WWTP and AWPF are provided below.

1. Regional WWTP Secondary Treatment

As part of the Pure Water Monterey project, new sources of urban and agricultural land runoff in surface water bodies, will be directed to the Regional WWTP headworks to increase the supply of recycled water for agricultural irrigation after treatment by the SVRP, and for landscape irrigation and groundwater replenishment after treatment through the AWPF. The source waters are composed of agricultural wash water from the City of Salinas, stormwater flows from the City of Salinas, stormwater and agricultural

runoff from Blanco Drain, and stormwater and agricultural runoff from the Reclamation Ditch, which drains a series of natural lakes through lateral ditches and pumps. The new source waters will be mixed with existing domestic sewage (including storm water, dry season urban runoff, and industrial wastewater) from the member agencies.

The Facility currently accepts 30,000 to 50,000 gallons per day (gpd) of saline wastes by truck from business entities that would otherwise be discharging to the sanitary sewer system. Such wastewaters include softener regenerant wastes and reverse osmosis (RO) concentrate, which are now trucked to the Regional WWTP instead of being discharged to the collection system. Because irrigation uses of recycled wastewater are sensitive to elevated levels of salts, the Discharger segregates these high-salt wastewaters from the rest of the influent flow to the Regional WWTP. These hauled saline wastes are held in a 375,000-gallon (approximate) lined pond and mixed with secondary effluent at the Regional WWTP. These hauled saline wastes are ultimately discharged with secondary effluent to the Pacific Ocean through Discharge Point 001.

Wastewater treatment at the Regional WWTP includes screening, aerated grit removal, primary sedimentation, secondary treatment through trickling filters, solids contact (i.e., bio-flocculation), and secondary clarification. Undisinfected secondary clarifier effluent is discharged through Discharge Point 001. Sludge/biosolids are anaerobically digested and sent to two screw presses. The holding lagoons and some of the drying beds may still be utilized in emergency situations. Dried solids are then hauled to the Monterey Regional Waste Management District's landfill in Marina, California, adjacent to the Regional WWTP, where they are used for daily cover.

2. Advanced Water Purification Facility (AWPF)

The AWPF will receive secondary effluent from the Regional WWTP and will provide full advanced treatment including ozone, membrane filtration, RO, advanced oxidation using ultraviolet light and hydrogen peroxide, and finished water stabilization. The AWPF is designed to produce 5 MGD of recycled water for groundwater injection in the Seaside basin and urban landscape irrigation by Marina Coast Water District. The RO concentrate will be mixed with hauled saline waste and secondary effluent (when available) from the Regional WWTP and discharged at Discharge Point 001. Membrane backwash produced by the AWPF will be sent to the Regional WWTP headworks for treatment. This Order addresses the discharge of AWPF RO concentrate with hauled saline waste and secondary effluent at Discharge Point 001. The groundwater injection operations of the AWPF are governed by WDRs-WRRs Order No. R3-2017-0003.

3. Salinas Valley Reclamation Project (SVRP)

The SVRP is a tertiary treatment plant adjacent to the Regional WWTP that receives secondary effluent from the Regional WWTP and provides recycled water for irrigation of 12,000 acres of farmland in the northern Salinas Valley. The SVRP provides tertiary treatment (through coagulation, flocculation, filtration, and disinfection) of secondary effluent for design flows of up to 29.6 MGD. The SVRP holds tertiary treated wastewater in an 80-acre-foot storage pond before it is distributed to farmland by the Castroville Seawater Intrusion Project. Production of disinfected tertiary recycled water at the SVRP portion of the Regional WWTP is governed by this Order. The SVRP does not contribute any wastewater to Discharge Point 001. The use of recycled water for irrigation is regulated via separate water recycling requirements.

4. Flows

The new source waters will result in additional influent flow to the WWTP and the addition of the AWPF will increase the recycling capacity. At the peak operating capacity, the AWPF will receive approximately 6.85 MGD of secondary effluent as source water (of that 0.68 MGD will be returned to the headworks as filter backwash) and will achieve approximately 73 percent overall recovery to produce 5 MGD of recycled water for irrigation and groundwater injection. The RO concentrate waste component will result in an additional flow of up to 1.17 MGD to Discharge Point 001. If the secondary effluent is produced at the permitted flow of 29.6 MGD, 6.85 MGD of this becomes influent to the AWPF, and 0.68 MGD of the AWPF influent is returned to the WWTP headworks, a maximum of 23.4 MGD of secondary effluent remains available for delivery to the SVRP or blending with RO concentrate through Discharge Point 001. The total discharge flow through Discharge Point 001 will not exceed the permitted flows of 29.6 MGD (ADWF) and 75.6 MGD (PWWF). Table F-2 lists the predicted flows from the WWTP and the AWPF.

Table F-2. Flows Contributing to Discharge Point 001

Wastewater Sources		Effluent Flow (MGD)	Ocean Outfall Maximum Permitted Flow (MGD)
WWTP	Trucked in saline wastes	0.03 - 0.05	81.2
	Secondary Effluent	18.53 (annual average) 29.6 (ADWF) 75.6 (PWWF)	
AWPF	RO Concentrate	0.83-1.17 (Maximum)	

5. Dilution Factors

The addition of the RO concentrate to the WWTP secondary effluent will change the character of the effluent waste stream discharged to Monterey Bay. Effluent quality will be a function of the amount of secondary effluent commingled with the AWPF RO concentrate and hauled saline waste. Additional minimum probable initial dilution factors (Dms), expressed as parts seawater per part wastewater, in the NPDES permit represent the changed effluent quality and the impacts of the discharge to the Monterey Bay National Marine Sanctuary. Secondary effluent from the Regional WWTP will be (1) treated through the AWPF to produce purified water for groundwater recharge or urban landscape irrigation, (2) treated at the Salinas Valley Reclamation Project (SVRP)—as currently done—to produce tertiary recycled water for agricultural irrigation, or (3) blended with AWPF RO concentrate and hauled saline waste discharged to the ocean. The amount of secondary effluent diverted to the outfall will vary throughout the year, with many months having essentially no secondary effluent discharged because all water is recycled. Because of the variability in composition and flow, four dilution factors have been developed to implement water quality standards in this permit.

The Discharger used the EPA-approved Visual Plumes UM3 Model to conduct modeling of the discharge through the ocean outfall. In conducting modeling, the Discharger used conservative assumptions and inputs for temperature and density profile (highly stratified) and zero velocity for ambient current. In addition, the Discharger ran the model under three separate oceanic conditions: upwelling, oceanic, and Davidson. Of the three

oceanic conditions, the upwelling conditions produced the lowest (most conservative) results. Using the upwelling model results, the Discharger developed dilution estimates for 36 scenarios of RO concentrate, hauled saline wastes, and secondary effluent volumes. Of the 36 Dm scenarios, the Discharger proposed four Dms, shown in Table F-3 below, for use in implementing effluent limitations.

Table F-3. Dilution Factors for Implementing Effluent Limitations

Total Flow (MGD)	Secondary Effluent (MGD)	Dm
1.57	0.4	473.4
2.77	1.6	388.3
9.17	8.0	258.7
29.6	29.5	145[1]

1. The modeling results indicated a Dm of 169.3 would correspond to the total effluent flow of 29.6 MGD; however, the Discharger proposed the more conservative Dm of 145, which is the allowable dilution in Order R3-2014-0013.

More secondary treated water that is recycled results in less secondary treated water being discharged through the ocean outfall. Because the secondary treated wastewater volume is large relative to the volume of AWPF RO concentrate and hauled saline waste, the volume of secondary effluent discharge essentially controls Dms. Lower flows through the outfall experience greater mixing and therefore have larger Dm values. The Central Coast Water Board used the four Dms in Table F-3 to determine the need for water quality-based effluent limitations and to calculate those limitations.

B. Discharge Points and Receiving Waters

Discharges of secondary effluent, hauled saline waste, and AWPF RO concentrate at Discharge Point 001 occurs through an 11,260-foot outfall/diffuser system that terminates at a depth of approximately 100 feet in the Pacific Ocean (Monterey Bay) at 36.72778º latitude and 121.83750º longitude. The receiving water is part of the Monterey Bay National Marine Sanctuary, designated as such on September 15, 1992. The purpose of the National Marine Sanctuaries Program is to protect areas of the marine environment which possess conservation, recreational, ecological, historical, research, educational, or aesthetic qualities of special national significance. The first priority of the program is the long-term protection of resources within designated sanctuaries. The Monterey Bay Sanctuary has been recognized for its unique and diverse biological and physical characteristics. The Facility's outfall/diffuser system is located outside the Monterey Bay National Marine Sanctuary Zone of Prohibition.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-4. Historic Effluent Limitations and Monitoring Data, Secondary Treatment Standards and Ocean Plan Table 1 Limitations – Discharge Point 001

Parameter	Units	Effluent Limitation			Monitoring Data (From June 1, 2014 – December 31, 2017)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
$CBOD_5$	mg/L	25	40	85	24	41	42
	lb/day[1]	6,200	10,000	21,000	3,252	5,673	5,741
	% Removal[2]	85	--	--	93	--	--
TSS	mg/L	30	45	90	22	37	41
	lb/day[1]	7,400	11,000	22,000	2,976	5,141	5,741
	% Removal[2]	85	--	--	94	--	--
Oil and Grease	mg/L	25	40	75	6.0	9.0	9.0
	lb/day[1]	6,200	10,000	19,000	994	1,824	1,824
Settleable Solids	ml/L	1.0	1.5	3.0[3]	0.10	0.2	0.5
Turbidity	NTU	75	100	230[3]	21	37	39
pH	pH units	6.0 – 9.0 at all times[4], [5]			6.3-8.2[4]		

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] Limitations and historic results are the minimum percent removal.

[3] Instantaneous Maximum.

[4] Instantaneous Minimum-Maximum.

[5] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. section 401.17):

a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

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

Parameter	Units	Effluent Limitation			Monitoring Data (From June 1, 2014 – December 31, 2017)		
		6-Month Median	Maximum Daily	Instant Max	Highest 6-Month Median	Highest Maximum Daily	Highest Instant Max
Cadmium, Total Recoverable	µg/L	150	580	1,500	ND	0.086[1]	0.086[1]
	lb/day[2]	36	140	360	ND	ND	ND
Chromium (VI)[3]	µg/L	290	1,200	2,900	11	11	11
	lb/day[2]	72	290	720	0.44	0.44	0.44
Lead, Total Recoverable	µg/L	290	1,200	2,900	0.11[1]	0.35[1]	0.35[1]
	lb/day[2]	72	290	720	ND	ND	ND
Selenium, Total Recoverable	µg/L	2,200	8,800	22,000	25	44	44
	lb/day[2]	540	2,200	5,400	1.0	0.57	0.57
Silver, Total Recoverable	µg/L	79	390	1,000	0.14[1]	0.14[1]	0.14[1]
	lb/day[2]	20	95	250	ND	ND	ND
Cyanide[4], Total (as CN)	µg/L	150	580	1,500	60.5	81	81
	lb/day[2]	36	140	360	8.7	14	14
Total Residual Chlorine[5]	µg/L	290	1,200	8,800	ND	ND	ND
	lb/day[2]	72	290	2,200	ND	ND	ND
Acute Toxicity	TUa	--	4.7	--	--	0.4	--
Chronic Toxicity	TUc	--	150	--	--	625	--
Phenolic compounds (non-chlorinated)	µg/L	4,400	18,000	44,000	11	11	11
	lb/day[2]	1,100	4,300	11,000	1.1	1.1	1.1
Endosulfan	µg/L	1.3	2.6	3.9	ND	ND	ND
	lb/day[2]	0.32	0.65	0.97	ND	ND	ND
Endrin	µg/L	0.29	0.58	0.88	ND	ND	ND
	lb/day[2]	0.072	0.14	0.22	ND	ND	ND
HCH	µg/L	0.58	1.2	1.8	ND	0.0058	0.0058
	lb/day[2]	0.14	0.29	0.43	ND	0.00032	0.00032

[1] Estimated concentration. The parameter was detected at a concentration greater than the method detection level (MDL), but lower than the minimum level (ML).

[2] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

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

[4] If a discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical

method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 C.F.R. part 136, as revised May 14, 1999.

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

logy=-0.43(logx)+1.8 where: y = the water quality objective (in µg/L) to apply when chlorine is being discharged; and

x = the duration of uninterrupted chlorine discharge in minutes.

The applicable effluent limitation must then be determined using Equation No. 1 from the Ocean Plan.

[6] The Discharger is not required to disinfect secondary effluent due to treatment system performance and outfall configuration and placement. The total chlorine residual effluent limitations are retained in this Order in the event the Discharger implements chlorine-based disinfection in the future and to verify compliance with semiannual Table 1 Pollutant monitoring requirements which include total chlorine residual.

[7] See Attachment A for applicable definitions.

Table F-6. Historic Effluent Limitations and Monitoring Data for the Protection of Human Health

Parameter	Units	30-Day Average Effluent Limitation	Monitoring Data (From June 1, 2014 – December 31, 2017) Highest 30-Day Average
Non-Carcinogens			
Acrolein	µg/L	32,000	ND
	lb/day[1]	7,900	ND
Antimony	µg/L	180,000	0.98
	lb/day[1]	43,000	0.0048
Bis(2-Chloroethyoxy) Methane	µg/L	640	ND
	lb/day[1]	160	ND
Bis(2-Chloroisopropyl) Ether	µg/L	180,000	ND
	lb/day[1]	43,000	ND
Chlorobenzene	µg/L	83,000	ND
	lb/day[1]	21,000	ND
Di-n-Butyl Phthalate	µg/L	510,000	ND
	lb/day[1]	130,000	ND
Dichlorobenzenes	µg/L	740,000	0.074[2]
	lb/day[1]	180,000	ND
Diethyl Phthalate	µg/L	4,800,000	ND
	lb/day[1]	1,200,000	ND
Dimethyl Phthalate	µg/L	120,000,000	ND
	lb/day[1]	30,000,000	ND
2-Methyl-4,6-Dinitrophenol	µg/L	32,000	30[2]
	lb/day[1]	7,900	ND
2,4-Dinitrophenol	µg/L	580	ND
	lb/day[1]	140	ND
Ethylbenzene	µg/L	600,000	ND
	lb/day[1]	150,000	ND
Fluoranthene	µg/L	2,200	0.0032[2]
	lb/day[1]	540	ND
Hexachlorocyclopentadiene	µg/L	8,500	ND

Parameter	Units	30-Day Average Effluent Limitation	Monitoring Data (From June 1, 2014 – December 31, 2017) Highest 30-Day Average
	lb/day[1]	2,100	ND
Nitrobenzene	µg/L	720	ND
	lb/day[1]	180	ND
Thallium	µg/L	290	ND
	lb/day[1]	72	ND
Toluene	µg/L	12,000,000	0.47[2]
	lb/day[1]	3,100,000	ND
Tributyltin	µg/L	0.20	ND
	lb/day[1]	0.05	ND
1,1,1-Trichloroethane	µg/L	79,000,000	ND
	lb/day[1]	19,000,000	ND
Carcinogens			
Acrylonitrile	µg/L	15	ND
	lb/day[1]	3.6	ND
Aldrin	µg/L	0.0032	ND
	lb/day[1]	0.00079	ND
Benzene	µg/L	860	ND
	lb/day[1]	210	ND
Benzidine	µg/L	0.010	ND
	lb/day[1]	0.0025	ND
Beryllium	µg/L	4.8	ND
	lb/day[1]	1.2	ND
Bis(2-Chloroethyl)Ether	µg/L	6.6	ND
	lb/day[1]	1.6	ND
Bis(2-Ethylhexyl)Phthalate	µg/L	510	1.1[2]
	lb/day[1]	130	ND
Carbon Tetrachloride	µg/L	130	ND
	lb/day[1]	32	ND
Chlordane	µg/L	0.0034	ND
	lb/day[1]	0.00083	ND
Chlorodibromomethane	µg/L	1,300	0.28[2]
	lb/day[1]	310	ND
Chloroform	µg/L	19,000	0.78
	lb/day[1]	4,700	0.0072
1,4-Dichlorobenzene	µg/L	2,600	ND
	lb/day[1]	650	ND
3,3'Dichlorobenzidine	µg/L	1.2	ND
	lb/day[1]	0.29	ND
1,2-Dichloroethane	µg/L	4,100	ND
	lb/day[1]	1,000	ND
1,1-Dichloroethylene	µg/L	130	ND

Parameter	Units	30-Day Average Effluent Limitation	Monitoring Data (From June 1, 2014 – December 31, 2017) Highest 30-Day Average
	lb/day[1]	32	ND
Dieldrin	µg/L	0.0058	ND
	lb/day[1]	0.0014	ND
2,4-Dinitrotoluene	µg/L	380	ND
	lb/day[1]	94	ND
1,2-Diphenylhydrazine	µg/L	23	ND
	lb/day[1]	5.8	ND
Halomethanes	µg/L	19,000	0.38[2]
	lb/day[1]	4,700	ND
Heptachlor	µg/L	0.0073	ND
	lb/day[1]	0.0018	ND
Heptachlor Epoxide	µg/L	0.0029	ND
	lb/day[1]	0.00072	ND
Hexachlorobenzene	µg/L	0.031	ND
	lb/day[1]	0.0076	ND
Hexachlorobutadiene	µg/L	2,000	ND
	lb/day[1]	500	ND
Hexachloroethane	µg/L	370	ND
	lb/day[1]	90	ND
Isophorone	µg/L	110,000	ND
	lb/day[1]	26,000	ND
N-Nitrosodimethylamine	µg/L	1,100	ND
	lb/day[1]	260	ND
N-Nitrosodi-n-Propylamine	µg/L	55	ND
	lb/day[1]	14	ND
N-Nitrosodiphenylamine	µg/L	370	ND
	lb/day[1]	90	ND
PAHs (total)	µg/L	1.3	0.20
	lb/day[1]	0.32	0.00094
PCBs	µg/L	0.0028	ND
	lb/day[1]	0.00068	ND
TCDD Equivalents	µg/L	5.7×10^{-7}	2.91×10^{-8} [2]
	lb/day[1]	1.4×10^{-7}	ND
1,1,2,2-Tetrachloroethane	µg/L	340	ND
	lb/day[1]	83	ND
Tetrachloroethylene	µg/L	290	ND
	lb/day[1]	72	ND
Toxaphene	µg/L	0.031	ND
	lb/day[1]	0.0076	ND
Trichloroethylene	µg/L	3,900	ND
	lb/day[1]	970	ND

Parameter	Units	30-Day Average Effluent Limitation	Monitoring Data (From June 1, 2014 – December 31, 2017) Highest 30-Day Average
1,1,2-Trichloroethane	µg/L	1,400	ND
	lb/day[1]	340	ND
2,4,6-Trichlorophenol	µg/L	42	ND
	lb/day[1]	10	ND
Vinyl Chloride	µg/L	5,300	0.19[2]
	lb/day[1]	1,300	ND

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:
lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] Estimated concentration. The parameter was detected at a concentration greater than the MDL, but lower than the ML.

D. Compliance Summary

A summary of the violations that occurred during the term of Order No. R3-2014-0013 are included in the table below.

Table F-7. Compliance Summary

Date	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
February 23, 2016	Single Sample Maximum	Chronic Toxicity	625	150	TUc
December 4, 2016	Weekly Average	$CBOD_5$	41	40	mg/L
August 16, 2016	Single Sample Maximum	Chronic Toxicity	625	150	TUc
August 30, 2016	Single Sample Maximum	Chronic Toxicity	625	150	TUc

For the chronic toxicity violation on February 23, 2016, the Discharger conducted a source investigation and determined that the exceedance was caused by an upset sludge digester that overflowed and was washed down into the storm pond. Following the toxicity exceedance in August 2016, the Permittee conducted a TRE. The TRE concluded that the non-routine practice of pumping restaurant grease to the headworks in lieu of directly to the digesters, due to limited digester capacity, was responsible for the violations.

E. Planned Changes

The Discharger expects to complete construction of the AWPF by the third quarter of 2019. In addition, the Discharger has been requested by California America Water (Cal Am) to conduct planning, infrastructure design, and water quality analysis required prior to the Discharger's accepting brine from Cal Am's proposed desalination plant that is a component of the Monterey Peninsula Water Supply Project. Cal Am has proposed to construct the desalination

plant near the Facility and to use subsurface slant wells near the coast for feed water. The desalination plant could provide an additional water supply that would enable Cal Am to meet State Water Board requirements to decrease pumping from the Carmel River. Cal Am has proposed to convey desalination brine from the Cal Am desalination plant to a new brine mixing structure for blending with the existing wastewater in the outfall from the Facility and then discharged through a redesigned and relocated Effluent Point 001.

Cal Am is currently seeking regulatory approvals and has estimated the desalination plant will begin operation in 2021. Because of uncertainty in the scope of the desalination plant, the probability that the Ocean Outfall diffuser ports would need to be modified, and the amount of time necessary to obtain regulatory approvals, the Discharger is not requesting the permit include Cal Am brine wastes at this time. A new ROWD would be submitted prior to consideration of the permit and compliance for discharging any amount of desalination brine.

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 the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit 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. California Environmental Quality Act (CEQA)

The addition of the AWPF is part of the Pure Water Monterey Groundwater Replenishment Project is subject to CEQA. As the lead agency, Monterey One Water issued a Notice of Preparation of an EIR on May 31, 2013, and a supplemental Notice of Preparation on December 9, 2014. Monterey One Water certified the Final EIR and approved the project on October 8, 2015. On October 30, 2017, Monterey One Water prepared and approved an addendum to the EIR, reflecting a change in design capacity of the AWPF from 4.0 MGD to 5.0 MGD.

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) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. The Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of very high levels of total dissolved solids (TDS) in the Pacific Ocean, including Monterey Bay, the receiving waters for discharges from the Facility meet an exception to Resolution No. 88-63, which precludes waters with TDS levels greater than 3,000 mg/L from the MUN designation. Requirements in this Order implement the Basin Plan.

   Beneficial uses applicable to coastal waters between the Salinas River and Point Pinos are as follows:

Table F-8. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	Water Contact and Non-Contact Recreation Industrial Service Supply Navigation Marine Habitat Shellfish Harvesting Commercial and Sport Fishing Wildlife Habitat

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, and 2015. The State Water Board adopted the latest amendment on May 6, 2015, and it became effective on April 7, 2016. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the state to be protected as summarized below:

Table F-9. Ocean Plan Beneficial Uses

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

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

4. **Antidegradation Policy.** Federal regulation 40 C.F.R. § 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. § 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. **Sewage Sludge and Biosolids.** This Order does not authorize any act that results in violation of requirements administered by U.S. EPA to implement 40 C.F.R. part 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 C.F.R. part 503 that are under U.S. EPA's enforcement authority.

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 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 main body of Monterey Bay is not identified on the 303 (d) List as impaired. According to the State's 2012 303 (d) list of impaired water bodies, which was approved by U.S. EPA on July 30, 2015, the closest receiving water impairments are described below.

- The Salinas River Lagoon is listed as impaired due to nutrients and toxicity. The nutrient impairment is addressed through the Lower Salinas River Watershed Nutrient TMDL, adopted by the Central Coast Water Board in 2013. Impairment due to toxicity is addressed through the *Salinas River Watershed Sediment Toxicity and Pyrethroid Pesticides in Sediment TMDL*, adopted by the Central Coast Water Board in 2017. The discharge covered by this Order is not located in receiving waters addressed by this TMDL and is therefore not subject to the TMDL requirements.
- Moss Landing Harbor is listed as impaired due to chlorpyrifos, diazinon, low dissolved oxygen, nickel, pathogens, pesticides, pH, sediment toxicity, and sedimentation/siltation. TMDLs to address the impairments are scheduled for 2021.
- Monterey Harbor is identified as impaired by metals and sediment toxicity. The estimated date of completion for TMDLs is 2021.

On December 9, 2016, the Central Coast Water Board submitted the 2014 303(d) list with recommended changes from the 2012 303(d) list. In addition to the impairments discussed above, the 2014 303(d) list includes an additional listing for bacteria.

- The Pacific Ocean at Monterey State Beach is listed as impaired for Enterococcus and total coliform bacteria. Currently, no bacteria TMDL is scheduled.

The 2014 303(d) list, including the added bacteria impairment does not replace the 2012 303(d) list until both the State Water Board and U.S. EPA approve the changes.

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. **Sanitary Sewer System Requirements.** Water Quality Order 2006-0003-DWQ, adopted on May 2, 2006 and amended by State Water Board Order WQ 2013-0058-EXEC, 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.

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. § 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. § 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

This permit implements discharge prohibitions that are applicable under sections III.I.1.a, III.I.3.a, and III.I.4.a of the California Ocean Plan.

1. **Discharge Prohibition II.A** (No discharge to Monterey Bay at a location other than as described by the Order). The Order authorizes a single, specific point of discharge to Monterey Bay; and this prohibition reflects CWA section 402 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 II.B** (The rate of secondary effluent dry weather average monthly rate of discharge from the WWTP shall not exceed 29.6MGD) This prohibition reflects the design capacity of the secondary treatment system and is intended to limit influent wastewater flows to that of the treatment facility design flows.

3. **Discharge Prohibition II.C** (The influent flow to the secondary treatment system shall not exceed 29.6 MGD average dry weather flow and 75.6 MGD peak wet weather flow). This prohibition reflects the design capacity of the secondary treatment system and is intended to limit influent wastewater flows to that of the treatment facility design flows.

4. **Discharge Prohibition II.D** (The rate of discharge to Monterey Bay shall not exceed 81.2 MGD). This prohibition reflects the design capacity of the ocean outfall and allows the discharge of blended secondary effluent, RO concentrate, and hauled saline waste above the design flow capacity of the secondary treatment facility.

5. **Discharge Prohibition II.E** (Overflows and bypasses prohibited). The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 C.F.R. § 122.41(m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and therefore, is explicitly prohibited by this Order.

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

7. **Discharge Prohibition II.G** (Discharges of radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited). This prohibition restates a discharge prohibition established in section III. H of the Ocean Plan.

8. **Discharge Prohibition II.H** (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.a of 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. § 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.

This Order includes limitations based on the minimum level of effluent quality attainable by secondary treatment, as established at 40 C.F.R. part 133. The secondary treatment regulation includes the following limitations applicable to all POTWs.

Table F-10. Secondary Treatment Requirements

Parameter	Effluent Limitation		
	30-Day Average	7-Day Average	Percent Removal[1]
$CBOD_5$[2]	25 mg/L	40 mg/L	85
TSS	30 mg/L	45 mg/L	85
pH	6.0-9.0		--

[1] The 30-day average percent removal shall not be less than 85 percent.
[2] The regulations at 40 C.F.R. section 133.104(b) allow the permitting authority to set effluent limitations for TOC instead of BOD_5 if a long-term correlation has been demonstrated.

Table 2 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 2 Ocean Plan effluent limitations are summarized below.

Table F-11. Ocean Plan Table 2 Requirements

Parameter	Units	Effluent Limitation		
		30-Day Average	7-Day Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	85
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225

Table 2 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 2 establishes a 75 percent minimum removal requirement for suspended solids, unless the effluent limitation is less than 60 mg/L. This Order implements the more stringent 85 percent suspended solids removal limitation based on the Secondary Treatment Standards at 40 C.F.R. part 133.

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. Mass-based effluent limitations were calculated based upon the permitted average daily discharge flow of the POTW of 29.6 MGD. 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.

Secondary Effluent Standards reflect the minimum level of treatment to be achieved through municipal wastewater treatment. The point of compliance determination must therefore be located prior to commingling with other wastestreams. This Order includes a new monitoring location, EFF-001A, for compliance determination with $CBOD_5$, TSS, and pH.

The Ocean Plan, p. 13 specifies that Table 2 limitations apply to a discharger's total effluent, of whatever origin (i.e., gross, not net, discharge). Therefore, compliance with Table 2 limitations is determined at Monitoring Location EFF-001. RO concentrate and hauled saline wastes may have an impact on total effluent pH, therefore, the pH limitation and compliance monitoring is retained at EFF-001 (in addition to EFF-001A) to meet the Ocean Plan objective that states the discharge may not cause a pH change in the Ocean of more than 0.2 units.

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

Table F-12. Summary of Technology-Based Effluent Limitations – EFF-001

Parameter	Units	Effluent Limitation			
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75	--
	lbs/day[1]	6,200	10,000	19,000	--
Settleable Solids	ml/L	1.0	1.5	--	3.0
Turbidity	NTU	75	100	--	230
pH[3]	standard units	6.0 – 9.0 at all times			

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. 401.17):

a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

Table F-13. Summary of Technology-Based Effluent Limitations – EFF-001A

Parameter	Units	Effluent Limitation			
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum
$CBOD_5$[1]	mg/L	25	40	85	--
	lbs/day[2]	6,200	10,000	21,000	--
	% removal	not less than 85[2]	--	--	--
TSS[1]	mg/L	30	45	90	--
	lbs/day[2]	7,400	11,000	22,000	--
	% removal	not less than 85[2]	--	--	--
pH[3]	standard units	6.0 – 9.0 at all times			

[1] 30-day average percent removal shall not be less than 85%.

[2] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q

where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[3] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. 401.17):

a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

C. 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 California Ocean Plan and are described in section III.C.1 and III.C.3, respectively, of the Fact Sheet. The water quality objectives (WQOs) from the California Ocean Plan are incorporated as receiving water limitations in 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 1 of the California 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 California Ocean Plan, the Central Coast Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table 1 toxic pollutants.

3. Determining the Need for WQBELs

Procedures for performing an RPA for ocean dischargers are described in Section III.C and Appendix VI of the California 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 95th percent confidence of each Table 1 pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints.

Endpoint 1 - There is “reasonable potential.” An effluent limitation must be developed for the pollutant. Effluent monitoring for the pollutant, consistent with the monitoring frequency in Appendix III (Ocean Plan), is required.

Endpoint 2 - There is no “reasonable potential.” An effluent limitation is not required for the pollutant. Appendix III (Ocean Plan) effluent monitoring is not required for the pollutant; the Central Coast Board, however, may require occasional monitoring for the pollutant or for whole effluent toxicity as appropriate.

Endpoint 3 - The RPA is inconclusive. Monitoring for the pollutant or whole effluent toxicity testing, consistent with the monitoring frequency in Appendix III, is required. An existing effluent limitation for the pollutant shall remain in the permit, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to an excursion above a Table 1 water quality objective.

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

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

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

i. 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.

ii. 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.

iii. 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.

iv. 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).

v. 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 using effluent monitoring data reported for June 2014 through December 2017. The implementation provisions for Table 1 in Section III.C of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates shall be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Order No. R3-2014-0013 established the minimum initial dilution factor (Dm) for the discharge to be 145 to 1 (seawater to effluent). The addition of the AWPF will result in varying conditions of discharge quality that will affect dilution characteristics. The amount of secondary effluent commingled with the RO concentrate and hauled saline waste will influence the buoyancy of the plume and the boundary interactions with the ambient receiving water.

As described in section II.A of this Fact Sheet, the Discharger conducted modeling to simulate worst case dilution under various blend scenarios of RO concentrate, hauled saline waste, and secondary effluent. From modeling results four Dms were selected to represent different blend amounts (Table F-3). By assigning multiple Dm values, the commingled effluent is characterized into four types of effluent waste streams that will be permitted for discharge. Representative conditions are therefore applied to each type of effluent waste stream to adequately assess the impacts of these discharges to Monterey Bay. The most conservative Dm of 145 was used to determine reasonable potential. This Dm reflects conditions of high secondary effluent, which accurately describes the discharge during the term of the existing permit.

A summary of the RPA results is provided below. As shown in the table, 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 ammonia, cyanide, acute toxicity, and chronic toxicity. RPA results that did not result in Endpoint 3 are bolded in the following.

Table F-14. RPA Results for Discharges to the Pacific Ocean

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	7	0	3.7[6]	**Endpoint 2 – Effluent limitation not required.**
Cadmium, Total Recoverable	1	7	6	0.086[6]	Endpoint 3 – RPA is inconclusive.
Chromium (VI), Total	2	15	10	11	**Endpoint 2 – Effluent limitation not required.**
Copper, Total Recoverable	3	7	0	12[6]	**Endpoint 2 – Effluent limitation not required.**
Lead, Total Recoverable	2	7	4	0.35[6]	Endpoint 3 – RPA is inconclusive.
Mercury, Total Recoverable	0.04	7	5	0.069[6]	Endpoint 3 – RPA is inconclusive.
Nickel, Total Recoverable	5	7	1	7.6[6]	**Endpoint 2 – Effluent limitation not required.**
Selenium, Total Recoverable	15	15	2	44	**Endpoint 2 – Effluent limitation not required.**
Silver, Total Recoverable	0.7	7	6	0.14[6]	Endpoint 3 – RPA is inconclusive.
Zinc, Total Recoverable	20	7	1	170	**Endpoint 2 – Effluent limitation not required.**
Cyanide, Total	1	15	1	81	**Endpoint 1 – Effluent limitation is necessary.**
Total Chlorine, Residual	2	3	3	<0.2	Endpoint 3 – RPA is inconclusive.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2], [3]	RPA Result/Comment[4]
Ammonia (as N)	600	59	0	47,900	**Endpoint 1 – Effluent limitation is necessary.**
Acute Toxicity	0.3	7	4	0.4	**Endpoint 1 – Effluent limitation is necessary.[5]**
Chronic Toxicity	1	16	0	625	**Endpoint 1 – Effluent limitation is necessary.**
Non-Chlorinated Phenolic Compounds	30	7	0	11	**Endpoint 2 – Effluent limitation not required.**
Chlorinated Phenolic Compounds	1	7	6	2.7[6]	Endpoint 3 – RPA is inconclusive.
Endosulfan	0.009	7	7	<0.00046	Endpoint 3 – RPA is inconclusive.
Endrin	0.002	7	7	<0.00018	Endpoint 3 – RPA is inconclusive.
HCH	0.004	7	4	0.036	Endpoint 3 – RPA is inconclusive.
Radioactivity	--	--	--	--	--
Objectives for Protection of Human Health – Non-Carcinogens					
Acrolein	220	7	7	<2.5	Endpoint 3 – RPA is inconclusive.
Antimony	1,200	6	3	0.98	Endpoint 3 – RPA is inconclusive.
Bis(2-chloroethoxy) Methane	4.4	7	7	0.29	Endpoint 3 – RPA is inconclusive.
Bis(2-chloroisopropyl) Ether	1,200	7	7	<0.27	Endpoint 3 – RPA is inconclusive.
Chlorobenzene	570	7	7	<0.05	Endpoint 3 – RPA is inconclusive.
Chromium (III)	190,000	6	0	10	**Endpoint 2 – Effluent limitation not required.**
Di-n-butyl Phthalate	3,500	7	7	<0.29	Endpoint 3 – RPA is inconclusive.
Dichlorobenzenes	5,100	7	6	0.074[6]	Endpoint 3 – RPA is inconclusive.
Diethyl Phthalate	33,000	7	7	<0.14	Endpoint 3 – RPA is inconclusive.
Dimethyl Phthalate	820,000	7	7	<0.17	Endpoint 3 – RPA is inconclusive.
4,6-dinitro-2-methylphenol	220	12	10	30[6]	Endpoint 3 – RPA is inconclusive.
2,4-dinitrophenol	4	7	7	<0.87	Endpoint 3 – RPA is inconclusive.
Ethylbenzene	4,100	7	7	<0.05	Endpoint 3 – RPA is inconclusive.
Fluoranthene	15	7	6	0.0032[6]	Endpoint 3 – RPA is inconclusive.
Hexachlorocyclopentadiene	58	7	7	<1.1	Endpoint 3 – RPA is inconclusive.
Nitrobenzene	4.9	7	7	<0.31	Endpoint 3 – RPA is inconclusive.

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	7	7	<0.04	Endpoint 3 – RPA is inconclusive.
Toluene	85,000	7	1	0.47[6]	Endpoint 3 – RPA is inconclusive.
Tributyltin	0.0014	6	6	<0.014	Endpoint 3 – RPA is inconclusive.
1,1,1-trichloroethane	540,000	7	7	<0.05	Endpoint 3 – RPA is inconclusive.
Objectives for Protection of Human Health – Carcinogens					
Acrylonitrile	0.1	7	7	<1	Endpoint 3 – RPA is inconclusive.
Aldrin	0.000022	7	7	<0.00028	Endpoint 3 – RPA is inconclusive.
Benzene	5.9	7	7	<0.051	Endpoint 3 – RPA is inconclusive.
Benzidine	0.000069	7	7	<0.28	Endpoint 3 – RPA is inconclusive.
Beryllium	0.033	7	7	<0.07	Endpoint 3 – RPA is inconclusive.
Bis(2-chloroethyl) Ether	0.045	7	7	<0.23	Endpoint 3 – RPA is inconclusive.
Bis(2-ethlyhexyl) Phthalate	3.5	7	5	1.1	Endpoint 3 – RPA is inconclusive.
Carbon Tetrachloride	0.9	7	7	<0.069	Endpoint 3 – RPA is inconclusive.
Chlordane	0.000023	6	6	<0.002	Endpoint 3 – RPA is inconclusive.
Chlorodibromomethane	8.6	7	6	0.28[6]	Endpoint 3 – RPA is inconclusive.
Chloroform	130	7	1	0.78	Endpoint 3
DDT	0.00017	7	7	<0.00018	Endpoint 3 – RPA is inconclusive.
1,4-dichlorobenzene	18	7	7	<0.072	Endpoint 3 – RPA is inconclusive.
3,3'-dichlorobenzidine	0.0081	7	7	<0.13	Endpoint 3 – RPA is inconclusive.
1,2-dichloroethane	28	7	7	<0.09	Endpoint 3 – RPA is inconclusive.
1,1-dichloroethylene	0.9	7	7	<0.086	Endpoint 3 – RPA is inconclusive.
Dichlorobromomethane	6.2	7	7	<0.2	Endpoint 3 – RPA is inconclusive.
Dichloromethane (Methylene Chloride)	450	6	3	0.22	Endpoint 3 – RPA is inconclusive.7
1,3-dichloropropene	8.9	7	7	<0.09	Endpoint 3 – RPA is inconclusive.
Dieldrin	0.00004	7	7	<0.0001	Endpoint 3 – RPA is inconclusive.
2,4-dinitrotoluene	2.6	7	7	<0.16	Endpoint 3 – RPA is inconclusive.

Parameter	Most Stringent WQO (µg/L)	N[1]	Number of Non-Detects	Max Effluent Conc. (µg/L)[2], [3]	RPA Result/Comment[4]
1,2-diphenylhydrazine	0.16	7	7	<0.15	Endpoint 3 – RPA is inconclusive.
Halomethanes	130	7	4	0.38[6]	Endpoint 3 – RPA is inconclusive.
Heptachlor	0.00005	7	7	<0.0004	Endpoint 3 – RPA is inconclusive.
Heptachlor Epoxide	0.00002	7	7	<0.00025	Endpoint 3 – RPA is inconclusive.
Hexachlorobenzene	0.00021	7	7	<0.17	Endpoint 3 – RPA is inconclusive.
Hexachlorobutadiene	14	7	7	<0.085	Endpoint 3 – RPA is inconclusive.
Hexachloroethane	2.5	7	7	<0.06	Endpoint 3 – RPA is inconclusive.
Isophorone	730	7	7	<0.31	Endpoint 3 – RPA is inconclusive.
N-nitrosodimethylamine	7.3	7	7	<0.71	Endpoint 3 – RPA is inconclusive.
N-nitrosodi-N-propylamine	0.38	7	7	<0.33	Endpoint 3 – RPA is inconclusive.
N-nitrosodiphenylamine	2.5	7	7	<0.17	Endpoint 3 – RPA is inconclusive.
PAHs	0.0088	7	2	0.2	**Endpoint 2 – Effluent limitation not required.**
PCBs	0.000019	7	7	<0.0015	Endpoint 3 – RPA is inconclusive.
TCDD equivalents	3.9E-09	7	0	2.9E-08[6]	Endpoint 3 – RPA is inconclusive.
1,1,2,2-tetrachloroethane	2.3	7	7	<0.11	Endpoint 3 – RPA is inconclusive.
Tetrachloroethylene (Tetrachloroethene)	2	7	7	<0.082	Endpoint 3 – RPA is inconclusive.
Toxaphene	0.00021	7	7	<0.002	Endpoint 3 – RPA is inconclusive.
Trichloroethylene	27	7	7	<0.06	Endpoint 3 – RPA is inconclusive.
1,1,2-trichloroethane	9.4	7	7	<0.08	Endpoint 3 – RPA is inconclusive.
2,4,6-trichlorophenol	0.29	7	7	<0.23	Endpoint 3 – RPA is inconclusive.
Vinyl Chloride	36	7	6	0.19[6]	Endpoint 3 – RPA is inconclusive.

NR indicates that effluent data were not reported.

[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] Endpoint 1 has been determined on the basis of Step 13 (BPJ) of the Ocean Plan RPA procedure.

[6] Estimated concentration. The result was detected at a concentration higher than the MDL and lower than the ML.

4. WQBEL Calculations

Using the results of the RPA, the Central Coast Water Board is establishing WQBELs for ammonia, cyanide, acute toxicity, and chronic toxicity based on a conclusion of Endpoint 1. An Endpoint 2 was concluded for chromium VI, selenium, non-chlorinated phenols, and PAHs, which have limitations in Order R3-2014-0013. Endpoint 2 resulted for arsenic, chromium III, copper, nickel, and zinc, which do not have limitations in Order R3-2014-0013. No new limitations are established for these pollutants. All other California Ocean Plan Table 1 pollutants resulted in an Endpoint 3 and the limits for these pollutants are retained in this Order, with the exception of DDT and mercury, which did not have limitations in the previous permit.

As described by Section III. C of the California Ocean Plan, effluent limitations for Table 1 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 = 145, 259, 388, or 473)

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. As described in section II.A.5 of this Fact Sheet, the Facility has four Dms to represent multiple RO concentrate, hauled saline waste, and effluent blend scenarios. In order to facilitate reporting of the six-month median results, effluent limitations in this Order are set equal to the Ocean Plan objectives and the Facility is allowed to use the appropriate Dm to calculate the concentrations that would result after dilution (C_{ZID}). Compliance is then determined by comparing the calculated concentration after dilution (C_{ZID}) to the Ocean Plan objective. In this way, C_{ZID}, the value reported for compliance determination, is substituted for Co and the Ocean Plan equation above is re-arranged as follows:

$$C_{ZID} = (Ce + DmCs)/(1+Dm)$$

As site-specific water quality data are not available, in accordance with Table 1 implementing procedures, Cs equals zero for all pollutants, except the following.

Table F-15. Background Concentrations (Cs) – California Ocean Plan (Table 3)

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

Applicable water quality objectives from Table 1 of the California Ocean Plan are as follows:

Table F-16. Water Quality Objectives (Co) – California Ocean Plan (Table 1) 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	µg/L	600	2,400	6,000
Acute Toxicity	TUa	--	0.3	--
Chronic Toxicity	TUc	--	1	--
Non-Chlorinated Phenolic Compounds	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-17. Quality Objectives (Co) – California Ocean Plan (Table 1) Objectives for Human Health

Pollutant	Units	6-Month Median
Noncarcinogens		
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

Pollutant	Units	6-Month Median
Dimethyl Phthalate	µg/L	820,000
2-Methyl-4,6-Dinitrophenol	µg/L	220
2,4-Dinitrophenol	µg/L	4
Ethylbenzene	µg/L	4,100
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	0.1
Aldrin	µg/L	0.000022
Benzene	µg/L	5.9
Benzidine	µg/L	0.000069
Beryllium	µg/L	0.033
Bis(2-Chloroethyl)Ether	µg/L	0.045
Bis(2-Ethylhexyl)Phthalate	µg/L	3.5
Carbon Tetrachloride	µg/L	0.9
Chlordane	µg/L	0.000023
Chlorodibromomethane	µg/L	8.6
Chloroform	µg/L	130
DDT (total)	µg/L	0.00017
1,4 Dichlorobenzene	µg/L	18
3,3'-Dichlorobenzidine	µg/L	0.0081
1,2-Dichloroethane	µg/L	28
1,1-Dichloroethylene	µg/L	0.9
Dichlorobromomethane	µg/L	6.2
Methylene Chloride	µg/L	450
1,3-Dichloropropylene	µg/L	8.9
Dieldrin	µg/L	0.00004
2,4-Dinitrotoluene	µg/L	2.6
1,2-Diphenylhydrazine	µg/L	0.16
Halomethanes	µg/L	130
Heptachlor	µg/L	0.00005
Heptachlor Epoxide	µg/L	0.00002
Hexachlorobenzene	µg/L	0.00021
Hexachlorobutadiene	µg/L	14
Hexachloroethane	µg/L	2.5
Isophorone	µg/L	730
N-Nitrosodimethylamine	µg/L	7.3
N-Nitrosodi-n-Propylamine	µg/L	0.038
N-Nitrosodiphenylamine	µg/L	2.5

Pollutant	Units	6-Month Median
PAHs (total)	µg/L	0.0088
PCBs	µg/L	0.000019
TCDD Equivalents	µg/L	0.0000000039
1,1,2,2-Tetrachloroethane	µg/L	2.3
Tetrachloroethylene	µg/L	2
Toxaphene	µg/L	0.00021
Trichloroethylene	µg/L	27
1,1,2-Trichloroethane	µg/L	9.4
2,4,6-Trichlorophenol	µg/L	0.29
Vinyl Chloride	µg/L	36

With the exception of acute and chronic toxicity, the Ocean Plan objectives in Tables F-15, F-16, and F-17 are applied as effluent limitations to be met after applying appropriate Concentrate Waste Dilution Ratios as described in Special Provision VI.C.6.b of the Order and section IV.C of the MRP. Acute and chronic toxicity limitations are retained from Order R3-2014-0013.

5. Bacteria

This Order includes new effluent limitations for total and fecal coliform and enterococcus bacteria that apply if the Executive Officer concludes from a bacterial assessment (described in Receiving Water Limitation A.1) that the discharge consistently exceeds the geometric mean bacteria Receiving Water Limitation in A.1. The effluent limitations are based on the Ocean Plan objectives but compliance is determined using the applicable Dm.

6. 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.

The Basin Plan requires that all waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Survival of aquatic organisms in surface waters subjected to a waste discharge or other controllable water quality conditions shall not be less than that for the same water body in areas unaffected by the waste discharge or for another control water.

a. Effluent acute toxicity collected from August 2014 through December 2017 exhibited a maximum value of 0.4 TUa. Using the Ocean Plan Equation 2 and the most conservative proposed dilution factor of 145, the discharge does not exceed the Ocean Plan objective. However, the California Ocean Plan 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 toxicity limitations and monitoring requirements are retained from the previous permit. The acute toxicity limitation is also retained to be protective of potential toxicity that may result from future brine/secondary effluent blends. The Regional Water Board believes the acute TST test is protective of beneficial uses in the Ocean Plan. By incorporating the acute toxicity limit using the TST approach, acute toxicity monitoring and reporting is simplified, as the test only has to be run at one concentration and the control, as opposed to multiple dilutions required to measure the LC50. In light of multiple Dm conditions, the simplified tests may reduce the potential for error associated with dilutions used in tests.

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:

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

b. Chronic toxicity data collected from August 2014 through December 2017 exhibited a maximum value of 625 TUc. Using this effluent data, RPCalc software, and the most conservative proposed dilution factor of 145, the discharge exhibits reasonable potential to exceed the Ocean Plan objective for chronic toxicity. Therefore, this Order includes an effluent limitation and monitoring requirements for chronic toxicity.

c. The Ocean Plan's approach to acute and chronic toxicity WQBELs is based on a "toxic unit" derived from one multi-concentration toxicity test. In 2010, U.S. EPA endorsed the TST statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) used in this NPDES permit. Compliance with these toxicity effluent limitations (i.e., determination of "pass" or "fail") shall be evaluated using the Test of Significant Toxicity (TST) statistical approach at the discharge "in-stream" waste concentration (IWC), as described in section VII.F of this Order and section V of the MRP (Attachment E). The TST statistical approach is described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be "mean discharge IWC response ≤ 0.75 × mean control response." A test that rejects this null hypothesis shall be reported as "pass." A test that does not reject this null hypothesis shall be reported as "fail." Discharger shall also report the "Percent Effect" as part of chronic toxicity result.

Section III.F of the 2015 Ocean Plan provides for more stringent requirements if necessary to protect the designated beneficial uses of ocean waters. Diamond et al. (2013) examined the side-by-side comparison of No-Observed-Effect-Concentration (NOEC) and TST results using California chronic toxicity test data (including data from POTWs) for the West Coast marine methods and test species required under this Order. See Table 1 (method types 1 through 5) on page 1103 in Diamond D, Denton D, Roberts, J, Zheng L. 2013. *Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples*. Environ Toxicol Chem 32:1101-1108. This comparison shows that while the TST and NOEC statistical approaches perform similarly most of the time, the TST performs better in identifying toxic and nontoxic samples, a desirable characteristic for chronic toxicity testing conducted under this Order. This examination also signals that the test methods' false positive rate (β no higher than 0.05 at a mean effect of 10%) and

false negative rate (α no higher than 0.05 (0.25 for topsmelt) at a mean effect of 25%) are indeed low. This highlights that using the TST in this Order - in conjunction with other Ocean Plan requirements (West Coast WET method/test species for monitoring and limiting chronic toxicity, the IWC representing the critical condition for water quality protection, the initial dilution procedure, and a single test for compliance)—provides increased assurance that statistical error rates are more directly addressed and accounted for in decisions regarding chronic toxicity in the discharge. As a result, and in accordance with Ocean Plan section III.F, the Central Coast Water Board is exercising its discretion to use the TST statistical approach for this discharge. U.S. EPA, Region 9 agrees with the Central Coast Water Board's determination.

Compliance with acute and chronic toxicity requirements contained in this Order shall be determined in accordance to section VII.G of this Order. Nevertheless, this Order contains a reopener to require the Central Coast Water Board and U.S. EPA, Region 9 to modify this Order, if necessary, to make it consistent with any new policy, law, or regulation.

In January 2010, U.S. EPA published a guidance document entitled; *EPA Regions 8, 9 and 10 Toxicity Training Tool*, which among other things discusses permit limitation expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 C.F.R. section 122.45(d) require that all permit limits be expressed, unless impracticable, as an average weekly effluent limitation (AWEL) and average monthly effluent limitation (AMEL) for POTWs. Following section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL and AMEL is not appropriate for WET. In lieu of an AWEL and AMEL for POTWs, U.S. EPA recommends establishing a maximum daily effluent limitation (MDEL) for toxic pollutants and pollutants in water quality permitting, including WET. This is appropriate for two reasons. The basis for the average weekly and average monthly requirement for POTWs derives from secondary treatment regulations and is not related to the requirement to assure achievement of water quality standard. Moreover, an average weekly and average monthly requirement comprising up to seven and thirty-one daily samples, respectively, could average out daily peak toxic concentrations for WET and therefore, the discharge's potential for causing acute and chronic effects would be missed. It is impracticable to use an AWEL and AMEL, because short-term spikes of toxicity levels that would be permissible under the 7-day and 31-day average scheme, respectively, would not be adequately protective of all beneficial uses. The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. This approach is comparable to that of the Ocean Plan, which calls for a daily maximum chronic toxicity limit.

Later in June 2010, U.S. EPA published another guidance document titled, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which the following was recommended: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to U.S. EPA's WET test methods. Section 9.4.1.2 of U.S. EPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002), recognizes that, "the statistical methods in this manual are not the only possible methods of statistical analysis." The TST

approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The U.S. EPA's WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. U.S. EPA's WET methods do not require achievement of specified effluent or ambient concentration response patterns prior to determining that toxicity is present.[1] Nevertheless, U.S. EPA's acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed—as a component of test review following statistical analysis—to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R02-013, section 10.2.6.2). In 2000, EPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (no-observed-effect concentration (NOEC), percent waste giving 50 percent survival of test organisms (lethal concentration 50, LC50), effects concentration at 25 percent (EC25) were calculated appropriately (EPA 821-B-00-004).

U.S. EPA designed its 2000 guidance as a standardized step-by step review process that investigates the causes for ten commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC50, and EC25, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by U.S. EPA's 2000 guidance decreased discrepancies in data interpretation for NOEC, LC50, and EC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from U.S. EPA's TST statistical approach ("Pass"/"Fail") for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of U.S. EPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria and other test review procedures—including those related to quality assurance for effluent and receiving water toxicity tests, reference toxicity tests, and control performance (mean, standard deviation, and coefficient of variation)—described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single-concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The Central

[1] See Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed. Reg. 69952, 69963, Nov. 19, 2002.

Coast Water Board and U.S. EPA, Region 9 will not consider a concentration-response pattern as sufficient basis to determine that a TST t- test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or Percent Minimum Significant Differences (PMSDs) must be submitted for review by the Central Coast Water Board, in consultation with U.S. EPA, Region 9 and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditation Program (ELAP) (40 C.F.R. section 122.44(h)). As described in the bioassay laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Board dated August 7, 2014, and from the U.S. EPA dated December 24, 2013, the PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results.

E. Final Effluent Limitation Considerations

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

1. Anti-Backsliding Requirements

The final effluent limitations in this Order/Permit are at least as stringent as the effluent limitations in the previous Order/Permit, Order No. R3-2014-0013, with a few exceptions. Section 402(o)1/303(d)(4) of the Clean Water Act (CWA) provides statutory exceptions to the general prohibition of backsliding contained in CWA section 402(o)(1)/303(d)(4). Based on new monitoring data, the California Ocean Plan's Appendix VI procedure resulted in a finding of endpoint 2 (i.e., "no reasonable potential") for chromium VI, selenium, non-chlorinated phenols, and PAHs. Consistent with the California Ocean Plan, effluent limitations are not required for pollutants resulting in an Endpoint 2. The removal of the effluent limitations for these constituents will therefore not authorize a change in the mass emission rates or a relaxation in the treatment of the discharge and meets the backsliding exception under CWA section 402(o)(1)/303(d)(4)(B).

This Order also allows less stringent, tiered, concentration-based effluent limitations under certain blends of brine waste and secondary effluent. The less stringent effluent limitations are the result of new dilution factors developed to account for operation of the AWPF. Because the brine waste is higher in salinity, it will affect the dilution characteristics of the blended effluent. Using EPA approved models, the Discharger estimated the dilution available under worst case conditions for the entire range of expected concentrate waste dilution scenarios. From the range of associated dilution factors, four Dms were selected to develop tiered concentration limits. The limitations in Order No. R3-2014-0013 are retained in this Order for the most restrictive Dm, which is characterized by high secondary effluent flow. For lower ratios of RO concentrate and saline waste to total effluent, higher dilution factors have been granted and therefore, higher effluent concentration limitations are allowed. Despite the higher concentration limitations, mass limitations from Order No. R3-2014-0013 remain the same under all

concentrate waste dilution ratios and dilution factors. Under CWA sections 403(o)(1)/303(d)(4)(B) for waters in attainment, the less stringent effluent tiered limitations for Ocean Plan Table 1 parameters is allowable because the action is consistent with the California antidegradation policy in Resolution No. 68-16, as described in section IV.D.2 of this Fact Sheet. In addition, CWA section 402(o)(2) allows backsliding where new information is available that was not available at the time of permit issuance and would have justified a less stringent effluent limitation. The addition of the AWPF and associated changes in recycled water and RO concentrate production, as well as the dilution factors based on new modeling constitute new information to further support an exception to anti-backsliding.

2. Antidegradation Policies

The final effluent limitations from the previous order have been retained in this Order/Permit, with the exception of selenium, non-chlorinated phenols, and chromium VI. This Order also allows less stringent concentration-based effluent limitations under certain blends of RO concentrate, saline waste, and secondary effluent. As described in section IV.D.1 above, the less stringent effluent limitations are the result of new dilution factors developed to account for operation of the AWPF and the addition of the concentrate to the discharge.

The most restrictive Dm in Order No. R3-2014-0013 is retained in this Order. Despite the higher Dms, mass limitations from Order R3-2014-0013 remain the same under all Concentrate Waste dilution ratios and dilution factors. As such, this Order does not allow an increase in mass discharged. The AWPF will treat new, additional agricultural and stormwater runoff source water which will allow the Discharger to provide irrigation water and purified water for injection into the Seaside Groundwater Basin for use as a municipal water supply. As the Blanco Drain and Reclamation Ditch source waters are impaired for some parameters, the diversion and treatment through the WWTP and AWPF will improve the quality of runoff entering the Salinas River and Monterey Bay.

Under CWA sections 403(o)(1)/303(d)(4)(B) for waters in attainment, removal of the final effluent limitations for these parameters is consistent with the State's antidegradation policy because the discharge is in compliance with existing water quality objectives for the Pacific Ocean. The Order's limitations and conditions ensure maintenance of the existing quality of receiving waters. Therefore, provisions of the Order are consistent with applicable antidegradation policy expressed by NPDES regulations at 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on $CBOD_5$, TSS, pH, oil and grease, settleable solids, and turbidity. Restrictions on these pollutants are discussed in section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by U.S. EPA on February 14, 2006 and has since been further amended. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and

submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

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

F. Interim Effluent Limitations – Not Applicable

G. Land Discharge Specifications – Not Applicable

H. 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 recycled wastewater, including those requirements established by the Division of Drinking Water at title 22, sections 60301 - 60357 of the California Code of Regulations, Water Recycling Rationale for Receiving Water Limitations

I. 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 are retained from the previous Order.

J. Groundwater

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

V. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. § 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. § 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. § 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. §§ 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

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 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, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

The requirements in section VI.C.2.a and b of the Order address requirements necessary to ensure compliance with Ocean Plan objectives for toxicity. The Ocean Plan section III.C.10 requires that if a discharge consistently exceeds an effluent limitation based on a toxicity objective, a TRE is required. The requirement to submit a TRE Workplan (section VI.C.2.a of this Order) is necessary to prevent delays in initiating the TRE, so that the Discharger can diagnose and remedy toxicity in the shortest time practicable. Accelerated monitoring included in the Order section VI.C.2.b is required in order to determine if an exceedance of a toxicity limitation is consistent versus sporadic and would provide information for the Central Coast Water Board to determine if a TRE is necessary. The toxicity reduction requirements in section VI.C.2.a-b are retained from the previous Order.

b. Water Contact (Bacterial Characteristics)

The requirement for repeat water-contact bacteriological monitoring is established in accordance with California Ocean Plan section III.D.1.b for exceedance of a single sample maximum bacteria standard contained within section IV.A.1 of this Order. This provision is retained from the previous permit.

c. Brine Waste Disposal Study

The limitations and conditions in this permit are based on the assumption of the RO concentrate, hauled saline waste, and secondary effluent as described in the ROWD. As such, the permit may not account for changes in composition or volume associated with additional brine wastes. Prior to discharging additional brine waste beyond what is described in this permit, the Discharger must provide information to the Central Coast Water Board that is necessary to determine if the permit adequately regulates the discharge or if additional requirements and/or permit modification is necessary.

d. Ocean Outfall and Diffuser Monitoring

Dye studies and outfall inspections are required to ensure a periodic assessment of the integrity of the outfall pipes.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The 2015 California Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. The Central Coast Water Board will notify the Discharger in writing if such a program becomes necessary

4. Construction, Operation, and Maintenance Specifications

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.

Part 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. part 503.

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

b. Pretreatment

Pretreatment requirements for POTWs are contained within 40 C.F.R. part 403. Per 40 C.F.R. § 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. § 403.3.

The Order retains pretreatment requirements as the Facility has total effluent flows in excess of 5 MGD. The Monitoring and Reporting Program includes additional reporting requirements in sections IX.C.3 through 12 of the MRP that reflect federal pretreatment requirements under 40 C.F.R. part 403.

c. Collection System

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (General Order) on May 2, 2006. The State Water Board amended the Monitoring and Reporting Program for the General Order through Order WQ 2013-0058-EXEC on August 6, 2013. The General Order requires public agencies that own or operate sanitary sewer systems with sewer lines one mile of pipe or greater to enroll for coverage and comply with the General Order. The General Order requires agencies to develop sanitary sewer management plans and report all sanitary sewer overflows, among other requirements and prohibitions.

The General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows that are more extensive, and therefore, more stringent than the requirements under federal standard provisions. The Discharger and public agencies that are discharging wastewater into the facility's collection system were required to obtain enrollment for regulation under the General Order by December 1, 2006.

d. Resource Recovery from Anaerobically Digestible Material.

Some POTWs choose to accept organic material such as food waste, fats, oils, and grease into their anaerobic digesters for co-digestion to increase production of methane and other biogases for energy production and to prevent such materials from being discharged into the collection system, which could cause sanitary sewer overflows. The California Department of Resources Recycling and Recovery has proposed an exemption from requiring Process Facility/Transfer Station permits where this activity is regulated under waste discharge requirements or NPDES permits. The proposed exemption is restricted to anaerobically digestible material that has been prescreened, slurried, and processed/conveyed in a closed system to be co-digested with regular POTW sludge. The proposed exemption requires that a POTW develop Standard Operating Procedures for the proper handling, processing, tracking, and management of the anaerobically digestible material before it is received by the POTW.

Standard Operating Procedures are required for POTWs that accept hauled food waste, fats, oil, and grease for injection into anaerobic digesters. The development and implementation of Standard Operating Procedures for management of these materials is intended to allow the California Department of Resources Recycling and Recovery to exempt this activity from separate and redundant permitting programs. If the POTW does not accept food waste, fats, oil, or grease for resource recovery purposes, it is not required to develop and implement Standard Operating Procedures.

6. Other Special Provisions

a. Discharges of Storm Water

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

b. Concentrate Waste Dilution Ratios

Upon completion of the AWPF, the discharge will consist of various blends of AWPF RO concentrate, hauled saline waste, and secondary effluent. Throughout the summer months, the AWPF will treat more secondary effluent and produce more RO concentrate than during winter months. In addition, the Discharger blends secondary effluent with RO concentrate and hauled saline waste to ensure that effluent limitations are met. Since the compositions of RO concentrate and hauled saline waste and secondary effluent are very different, with RO concentrate and hauled saline waste having higher TDS and generally more concentrated pollutants, the dispersion of combined effluent in the receiving water will depend on the ratio of RO concentrate and hauled saline waste to total effluent.

The Discharger has conducted modeling to characterize the expected ratios of RO concentrate and hauled saline waste to secondary effluent and has predicted the

dilution factors (Dms) that would be available under these ratios[2]. Because the dilution and waste characteristics may be extremely variable, the limitations in this permit are established for four different dilution factors. While the limitations themselves are set equal to the Ocean Plan objectives, the reported results for compliance determination are based on one of the four tiers of Dms. Table 10 in the Order presents the Discharger's model results—concentrate waste dilution ratios used to develop minimum probable initial dilution factors (Dms). The concentrate waste dilution ratios and corresponding Dms in Table 10 of this Order were calculated as the

(Total waste flow – Secondary effluent flow)/Secondary effluent flow

which is equivalent to

$$\text{Concentrate Waste Dilution Ratio} = \frac{AWPF\ RO\ Concentrate\ (MGD) + Hauled\ Saline\ Waste\ (MGD)}{Total\ Effluent\ (MGD)}$$

For reporting compliance with effluent limitations for Ocean Plan Table 1 parameters, the Discharger selects the appropriate Dm based on the calculated concentrate waste dilution ratio on the day of sampling and calculates the concentration at the ZID. The procedures for calculating and reporting compliance with effluent limitations is provided as footnotes to Table E-7 and is discussed in section VI.B. of this Fact Sheet.

7. Compliance Schedules – Not Applicable

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. §§ 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.

B. Effluent Monitoring

Quarterly compliance monitoring for chromium VI and selenium has been removed from this Order because the discharge did not exhibit reasonable potential for these pollutants. The Discharger must still monitor for chromium VI and selenium as Ocean Plan Table 1 parameters specified in Table E-4 of the MRP.

This Order includes new monitoring requirements for bacteria that apply only upon EO determination. Bacteria is mainly monitored through receiving water stations. If the EO determines there are potential exceedances of the Ocean Plan objectives, then additional monitoring of effluent is required to determine the influence of the discharge on the nearby ocean waters.

[2] Technical Memorandum dated November 15, 2017, submitted by the Discharger to the Central Coast Water Board.

Effluent monitoring for dissolved oxygen, nitrate plus nitrite (as N), total Kjeldahl nitrogen (TKN), and total phosphorus is added to Table E-4 in this Order to align with required monitoring in EPA Form 2A, section B.6. Table E-4 includes monitoring for orthophosphate that was not identified in Table E-4 of Order R3-2014-0013. This is not a new requirement as it was included in Order R3-2014-0013 as part of CCLEAN effluent monitoring requirements.

Secondary effluent standards reflect the minimum level of treatment to be achieved through municipal wastewater treatment. The point of compliance determination must therefore be located prior to commingling with other waste streams. This Order includes a new monitoring location, EFF-001A, for compliance determination with $CBOD_5$, TSS, and pH. For this Facility, TOC is an indicator of treatment level, similar to $CBOD_5$. Monitoring requirements for $CBOD_5$, TSS, pH, and TOC are moved from the final combined effluent location (previously designated M-001) to the new location EFF-001A.

As described in section V.B.6 of this Fact Sheet, the Discharger is required to calculate and report the concentration at edge of the ZID. A new effluent monitoring location EFF-001B has been established for this purpose. The procedures for reporting compliance with effluent limitations at discharge point 001 are as follows:

Step 1: Report raw total effluent data as EFF-001.

Step 2: Calculate Concentrate Waste Dilution Ratio using the Equation 1 below.

Equation 1: Concentrate Waste Dilution Ratio $= \frac{AWPF\ RO\ Concentrate\ (MGD) + Hauled\ Saline\ Waste\ (MGD)}{Total\ Effluent\ (MGD)}$

Step 3: Using column 1 of Table 9 of the Order (Table F-18 below), determine the corresponding Dm

Table F-18. Concentrate Waste Dilution Ratio Ranges and Corresponding Dilution [1]

(1) Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	(2) Dm for Compliance with Ocean Plan Table 1 Parameters	(3) Monitoring Location for Reporting
0-0.127	145	EFF-001B
0.128 – 0.421	259	EFF-001B
0.422 – 0.744	388	EFF-001B
≥ 0.745	473	EFF-001B

[1] Minimum probable initial dilution expressed as parts seawater per part wastewater.

Step 4: Calculate results for Compliance Determination (Co) using Equation 2 below.

Equation 2: $Co = \frac{Ce + DmCs}{1 + Dm}$

Where:

Co = the concentration at the completion of initial dilution
Ce = effluent concentration reported for Monitoring Location EFF-001
Cs = background seawater concentration provided in Table 3 of the 2015 Ocean Plan (with all metals expressed as total recoverable concentration, µg/L
Dm = parts seawater per part wastewater, the applicable minimum probable initial dilution from Table F-18

Step 5: Using Co, calculate the 6-month median, daily maximum, and instantaneous maximum concentrations and report these values for EFF-001B.

C. Whole Effluent Toxicity Testing Requirements

This Order contains acute and chronic toxicity effluent limitations as described in sections IV.C.3 and IV.C.5 of this Fact Sheet.

This Order requires the Discharger to conduct additional toxicity testing for exceedances of the toxicity effluent limitations. If the additional tests demonstrate toxicity, the Discharger is required to submit a Toxicity Reduction Evaluation (TRE) Workplan in accordance with the submitted TRE Workplan and U.S. EPA guidance which shall include: further steps taken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions.

Section III.C.10 of the Ocean Plan requires a TRE if a discharge consistently exceeds an effluent limitation based on a toxicity objective in Table 1 of the Ocean Plan.

Consistent with the requirements of the Ocean Plan, section III.C.5 of the MRP (Attachment E) requires the Discharger to develop an Initial Investigation TRE Workplan and submit the Initial Investigation TRE Workplan within 90 days of the effective date of this Order. The Workplan must describe steps the Discharger intends to follow if the effluent limitation for chronic toxicity is exceeded.

If the effluent limitation for acute or chronic toxicity is exceeded in any one test, the Discharger must conduct a TRE if the toxicity is exceeded in any of the next four succeeding tests performed at 14-day intervals and notify the Central Coast Water Board and U.S. EPA, Region 9. The requirement for a minimum of four succeeding tests performed at 14-day intervals is based on the probability of encountering at least one toxicity exceedance assuming a true, but unknown level of occurrence. After the toxicity exceedance, the Discharger must continue to conduct the routine monthly monitoring for acute and chronic toxicity as required in Monitoring and Reporting Program (Attachment E). The TRE shall be conducted in accordance with the approved TRE Workplan and available U.S. EPA guidance documents. The Discharger must also implement a Toxicity Identification Evaluation (TIE), as necessary, based upon the magnitude and persistence of toxicity effluent limitation exceedances. Once the source of toxicity is identified, the Discharger must take all reasonable steps to reduce the toxicity to meet the chronic toxicity effluent limitation identified in section IV.A of this Order.

Within 30 days of completion of the TRE, the Discharger must submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions taken or planned to achieve consistent compliance with all the toxicity limitations of this Order and prevent recurrence of exceedances of those limitations, and a time schedule for implementation of any planned corrective actions. The Discharger must implement any planned corrective actions in the TRE Final Report in accordance with the specified time schedule, unless otherwise directed in writing by the Central Coast Water Board and/or U.S.EPA, Region 9. The corrective actions and time schedule must be modified at the direction of the Central Coast Water Board and/or U.S. EPA, Region 9.

Refer to section V of the MRP (Attachment E).

D. Recycled Water Monitoring

The Discharger shall comply with applicable State and local requirements regarding the production and use of recycled wastewater, including those requirements established by the State Water Board Division of Drinking Water at title 22, sections 60301 - 60355 of the California Code of Regulations, Water Recycling Criteria. The requirement in section IV.C.13

of the Order is included to clarify that the Order does not permit the discharge of recycled water.

E. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is carried over from Order No. R3-2014-0013 as necessary to determine compliance with receiving water limitations and for the protection of public health. Benthic sediment and benthic biota monitoring of the receiving water has been established in the Order to establish a baseline of the current conditions surrounding the diffuser for future permitting efforts.

2. Groundwater – Not Applicable

F. Other Monitoring Requirements

1. CCLEAN

This Order retains the requirement to participate in CCLEAN monitoring. The CCLEAN is a coordinated monitoring effort to address receiving water in the Monterey Bay and in necessary to assess whether beneficial uses are affected by discharges. The CCLEAN requirements specified in this Order are updated to reflect current program methods and pollutants of concern, and to align with requirements for other Permittees participating in the program.

2. Biosolids Monitoring

Biosolids monitoring requirements have been retained from the previous order and are based on the requirements of 40 C.F.R. part 503.

3. Pretreatment Monitoring.

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

4. Outfall Inspection.

This Order retains the requirement of the previous permit to conduct annual, visual inspections (including dye tracer tests) of the outfall structure and report to the Central Coast Water Board regarding its physical integrity.

5. MBNMS Spill Reporting.

This Order retains the requirement of the previous permit to report all sewage spills under its control that are likely to enter ocean waters, directly to the MBNMS office.

6. 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 dischargers 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.

VII. PUBLIC PARTICIPATION

The Central Coast Water Board considered the issuance of WDRs that serve as an NPDES permit for the Monterey One Water Regional WWTP and AWPF. 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 to 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 provided through **publication in the Monterey County Herald on June 18, 2018, and September 3, 2018.**

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 encouraged to be sent via email to centralcoast@waterboards.ca.gov. Comments may also have been submitted in person, or by mail, to the Executive Officer at the Central Coast Water Board at:

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

To be fully responded to by staff and considered by the Central Coast Water Board, the written comments were due at the Central Coast Water Board office by 5:00 p.m. on **July 20, 2018**.

Non-substantive comments and edits were received from the MBNMS and the Discharger that improved the clarity and readability of the Order. Staff received substantive written comments from Steve Shimek of The Otter Project on July 20, 2018. The comment letter is included as Attachment 2 of the staff report. The comments are summarized, along with staff's response to the comments, as follows:

1. The Otter Project suggests that the Monterey One Water discharge could be related to harmful algal blooms (HABs) and requests Monterey One Water analyze effluent samples for total nitrogen, Kjeldahl nitrogen, and ammonia and report monthly.

Staff Response: Nutrient loading from Monterey One Water's WWTP is much lower than from runoff and far smaller than the nutrient loading from naturally occurring processes such as upwelling. Central Coast Water Board staff has reviewed HAB work and assessments made by independent scientists in the Monterey Bay region. Central Coast Water Board staff concurs with the assessment that nutrient loads from the Monterey One Water discharge are unrelated to the

frequency or intensity of the algal blooms occurring along this stretch of coastline. Several lines of evidence support this conclusion including:

• HABs initiated within Monterey Bay occur mostly in the fall (Ryan et al. 2008, Schulien et al. 2017), which is the dry season when the Monterey One Water discharge is negligible or zero.

• HABs initiated within Monterey Bay start in the northeast corner, spatially separated from the Monterey One Water ocean outfall offshore off Marina (Pennington and Chavez 2000, Ryan et al. 2008, Ryan et al. 2009).

• HABs are also advected into Monterey Bay from the North American west coast shelf. These blooms are started by large-scale climate events resulting in 1) stratification of offshore waters, 2) bloom development following upwelling episodes, and 3) advection into coastal bays such as Monterey Bay following wind events (Trainer et al. 2000, Ryan et al. 2008, Ryan et al. 2009, Du et al. 2015, McCabe et al. 2016, Du et al. 2016).

• Both HABs initiated within and outside Monterey Bay are preceded by and fueled by large nutrient infusions such as from upwelling, Monterey Bay Canyon nutrient pumping, and the Elkhorn Slough plume (Trainer et al. 2000, Fischer et al. 2014, Ryan et al. 2014, McCabe et al. 2016).

• A small-sized bloom (5 km^2) in Monterey Bay needs a daily input of 8.75×10^4 kg N, whereas a large-size bloom (80 km^2) needs on the order of 1.4×10^6 kg N, to sustain the bloom (Ryan et al. 2008). The N load from Monterey One Water discharge during the dry season is up to 125 kg per day, representing 0.14% of the daily N needed to sustain a small-sized bloom, and 0.009 % of the daily N necessary to sustain a large-sized fall bloom, in Monterey Bay.

• HAB bloom development in Monterey Bay is not associated with riverine or wastewater effluent discharge as these sources are not at a scale large enough to fuel blooms (Schulien et al. 2017). However, once developed, riverine sources of nutrients may partially sustain nearshore filaments of blooms (Lane et al. 2009).

Although there is no clear connection between wastewater effluent discharge and these blooms, staff agrees that monitoring could provide scientifically valid or usable information relevant to the prediction or management of algal blooms. Staff has proposed requirements in the draft order to increase the monitoring and reporting frequency to a monthly basis for total nitrogen, Kjeldahl nitrogen, and ammonia.

2. The Otter Project requested development of a total nitrogen limitation for the Order.

Staff Response: The State Water Board develops ocean discharge limits through periodic reviews of the California Ocean Plan. As such, the State Water Board Ocean Plan triennial review process is the appropriate venue to request development of total nitrogen limits, as opposed to a Central Coast Water Board permit adoption process. Although monitoring is proposed in the draft order, staff recommends not applying effluent limits for total nitrogen and Kjeldahl nitrogen until the State Water Board updates the Ocean Plan to include discharge limits for those pollutants. Without discharge limits, these pollutants will not be used for compliance assessments under the permit.

3. The Otter Project requested the development of a time schedule order that requires elimination of the ocean discharge or denitrification of the facility's effluent.

Staff Response: Staff does not recommend that a time schedule order be required in this Order. The Pure Water Monterey project will help remove nitrate and other pollutants that would normally flow untreated into surface waters and then enter the MBNMS (see Attachment 3 of the staff report). The Pure Water Monterey project is an environmentally beneficial project that will treat waste waters and increase water recycling in the region. During the dry season, almost all wastewater is recycled, and there is little discharge through the ocean outfall. Although year-round zero discharge is an outstanding goal, currently this is not possible. Without Pure Water Monterey, almost all the nitrogen loading from the Reclamation Ditch, Tembladero Slough, Blanco Drain, and the Salinas Pump Station and Treatment Facility diversions would continue to flow downstream and affect water quality. The majority of nitrogen in these surface waters is currently released to Elkhorn Slough via the Old Salinas River Channel, or, during times when the Salinas River sand bar is breached, part of this loading flows directly to Monterey Bay via the Blanco Drain. With Pure Water Monterey, the total nitrogen pollutant loading to the Monterey Bay nearshore region via the Elkhorn Slough plume may be substantially reduced compared to existing conditions. The Elkhorn Slough plume has been hypothesized to fuel HABs in the northeast corner of Monterey Bay during the dry season (Fischer et al. 2014) and this project will have a quantifiable beneficial impact related to the total pollutant load to Monterey Bay.

References

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Fischer AM, Ryan JP, Levesque C, Welschmeyer N (2014) Characterizing estuarine plume discharge into the coastal ocean using fatty acid biomarkers and pigment analysis. Mar Environ Res 99:106–116

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Schulien J, Peacock MB, Hayashi K, Raimondi P, Kudela RM (2017) Phytoplankton and microbial abundance and bloom dynamics in the upwelling shadow of Monterey Bay, California, from 2006 to 2013. Mar. Ecol. Prog. Ser. 572: 43-56.

Trainer VL, Adams NG, Bill BD et al. (2000) Domoic acid production near California coastal upwelling zones, June 1998. Limnol. Oceanogr. 45: 1818-1833.

C. Public Hearing

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

Date:	December 6-7, 2018
Time:	9:00 a.m.
Location:	Central Coast Water Board Offices 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 person aggrieved by this action of the Central Coast Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

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

Or by email at waterqualitypetitions@waterboards.ca.gov

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 or Phil Hammer at (805) 549-3882 or phillip.hammer@waterboards.ca.gov.