CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401

PROPOSED ORDER NO. R3-2023-0001
NPDES NO. CA0048194

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF SANTA CRUZ WASTEWATER TREATMENT FACILITY DISCHARGE TO THE PACIFIC OCEAN

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

Discharger	City of Santa Cruz
Name of Facility	City of Santa Cruz Wastewater Treatment Facility
Facility Address	110 California Street Santa Cruz, CA 95060 Santa Cruz County

Table 1. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary treated wastewater, which includes strainer backwash, microfiltration backwash, facility stormwater, and reverse osmosis concentrate and off-specification water from the Pure Water Soquel Advanced Water Purification Facility.	36.935556? North	122.068889? West	Pacific Ocean (Monterey Bay National Marine Sanctuary)
002	Disinfected tertiary recycled municipal wastewater			Reclamation Use

This Order was adopted on: **December 14-15, 2023**
This Order shall become effective on: **March 1, 2024**
This Order shall expire on: **February 28, 2029**

The Discharger shall file a report of waste discharge as an application for reissuance of waste discharge requirements in accordance with California Code of Regulations title 23 and an application for reissuance of a National Pollutant Discharge Elimination System permit no later than **September 1, 2028.** 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**.

I, Ryan E. Lodge, 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.

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Ryan E. Lodge, Executive Officer

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1. FACILITY INFORMATION

Information describing the City of Santa Cruz Wastewater Treatment Facility (Facility) is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

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

2.1. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC) (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 CWC (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 1 subject to the WDRs in this Order.

2.2. **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.

2.3. **Provisions and Requirements Implementing State Law.** Some provisions/requirements in this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

2.4. **California Water Code Sections 13263 and 13241 Considerations.** When requirements in an NPDES permit are more stringent than what is required by the federal CWA, regional water quality control boards must consider the factors in CWC section 13263, including the provisions of CWC section 13241. The Central Coast Water Board has considered these factors in establishing the WDRs in this Order.

2.5. **Water Reclamation Requirements for Recycled Water Production and Use.** This Order allows the production and onsite use of tertiary recycled wastewater in compliance with applicable state and local requirements regarding the production and use of reclaimed wastewater, including those requirements established by the California Department of Public Health at California Code of Regulations (CCR) title 22, sections 60301-60357, known as the Water Recycling Criteria. Additionally, this Order includes water reclamation requirements for the Facility pursuant to the State Water Resources Control Board's (State Water Board's) Division of Drinking Water

recommendations submitted to the Central Coast Water Board. The Discharger's distribution and offsite reuse of recycled water produced by the Facility is subject to the State Water Board's *General Water Reclamation Requirements for Recycled Water Use* (State Water Board Order WQ 2016-0068-DDW), or other applicable permit, dependent on final use.

2.6 **Response to Climate Change.** Climate change refers to observed changes in regional weather patterns such as temperature, precipitation, and storm frequency and size. At the local scale, within urbanized areas, climate change may directly impact groundwater and surface water supply; drainage, flooding, and erosion patterns; and ecosystems and habitat. This shift in climate, combined with California's growing population, has increased reliance on pumping, conveying, treating, and heating water, increasing the water sector's greenhouse gas emissions. The State Water Board's Resolution No. 2017-0012, *Comprehensive Response to Climate Change*, requires a proactive response to climate change in all California Water Board actions, with the intent to embed climate change consideration into all programs and activities. Aligning with Resolution No. 2017-0012, this Order supports the ongoing development, implementation, monitoring, and updating of the City's climate action planning efforts using the best available data and technology for the Facility's wastewater treatment and operation. In 2018, the City of Santa Cruz provided a five-year update to its Local Hazard Mitigation Plan (LHMP). The City's Climate Adaptation Plan (CAP) update is included as an appendix to the LHMP and will be updated in 2023-2024 along with the LHMP. The CAP includes a sea level rise analysis, vulnerability analysis, and progress on adaptation strategies outlined in the first version of the plan. Whereas the above planning efforts have been conducted at the city level, this Order requires the Discharger supplement the City's CAP update to identify and plan for hazards and vulnerabilities at the Facility level related to sea level rise, flooding, temperature, and influent flow and loading fluctuations exacerbated by climate changes and to identify and plan for greenhouse gas reduction approaches at the Facility.

2.7. **Provision of Treated Effluent for Beneficial Reuse.** Section 6.3.6 of this Order requires the Discharger to prepare a recycled water management plan to describe in detail how the Discharger will maximize the amount of the Facility's treated effluent used for beneficial reuse, with the goal of achieving maximum beneficial reuse. This provision implements state policy and goals for recycled water. To support water supply diversity and sustainability and to encourage the increased use of recycled water in California, the State Water Board's *Water Quality Control Policy for Recycled Water* adopts goals to increase the use of recycled water and to reuse all dry weather direct discharges of treated wastewater to ocean waters that can be viably put to a beneficial use. Additionally, recycled water is considered a valuable resource in CWC section 13050(n), which defines recycled water as a water that, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.

Finally, State Water Board Resolution No. 68-16, the antidegradation policy, supports the inclusion of recycled water management planning requirements. Consistent with the antidegradation policy, this Order results in the best practicable

treatment or control of the Facility's discharge to ensure that pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the state will be maintained. For this Order, which takes into consideration the state of technology today and environmental conditions that necessitate the reuse of treated wastewater, recycling treated wastewater where viable is the best practicable treatment or control. Recycling treated wastewater on-site, as opposed to disposing of this valuable resource to ocean waters, is critical to provide the maximum benefit to and to promote the health and welfare of the people of the state. Additionally, the Fact Sheet explains how future implementation of proposed beneficial reuses identified in the recycled water management plans may result in production of a waste or increased volume or concentration of waste and discharge to a new location, but the implementation of beneficial reuses pursuant to the plans will be consistent with the maximum benefit for the people of the state.

2.8. **Long-Term Planning and Implementation.** Federal regulations require NPDES permits to expire five years after their effective dates, after which the permit may be administratively extended prior to renewal. Planning and instituting measures to support long-term beneficial reuse of the Facility's treated effluent may span multiple permit terms. As a result, this Order includes requirements for the Discharger to propose next steps for making progress towards beneficial reuse of the Facility's treated effluent that the Central Coast Water Board plans to use to inform future permit terms.

2.9. **Human Right to Water.** In Resolution No. R3-2017-0004, the Central Coast Water Board resolved to continue to consider the human right to water in all activities that could affect existing or potential sources of drinking water, including permitting. This Order is consistent with Resolution No. R3-2017-0004 by requiring the Discharger to plan for providing treated effluent for beneficial reuse, which may include augmenting local community drinking water supplies to improve water supply resiliency in response to climate change.

2.10. **Disadvantaged Community Status.** On January 26, 2017, the Central Coast Water Board approved Resolution No. R3-2017-0004, *Adopting the Human Right to Water as a Core Value and Directing Its Implementation in Central Coast Water Board Programs and Activities*, which adopts the human right to water as a core value and affirms the realization of the human right to water and protecting human health as the Central Coast Water Board's top priorities. To meet the objectives of the resolution, staff has evaluated the disadvantaged community status for the Discharger. Using 2016-2020 census data, the California Department of Water Resources Disadvantaged Community (DAC) Mapping Tool[1] identifies 11 block groups in the City of Santa Cruz, including approximately 35 percent of the

[1] The DAC Mapping Tool is used to inform statewide Integrated Water Resources Management (IRWM), Sustainable Groundwater Monitoring Act (SGMA), and California Water Plan implementation efforts and can be found at the following website: https://gis.water.ca.gov/app/dacs/.

population, as disadvantaged communities. The tool defines a DAC as a census block with a median household income between $42,737 and $56,982 and a severely disadvantaged community (SDAC) as a census block with a median household income below $42,737. The SDAC census blocks in the City of Santa Cruz have median household incomes of $26,600, $26,600, $27,284, $29,545, $31,610, $39,935, and $40,931. The DAC census block in the City of Santa Cruz has a median household income of $60,948.

2.11. **California Environmental Quality Act.** Under CWC section 13389, this action to adopt an NPDES permit for the discharge of waste to surface waters is exempt from the California Environmental Quality Act (CEQA) provisions in Public Resources Code Division 13, Chapter 3.

2.12. **Notification of Interested Persons.** The Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

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

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order No. R3-2017-0030 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (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.

3. DISCHARGE PROHIBITIONS

3.1. The discharge of treated wastewater at a location other than as described by this Order is prohibited.

3.2. The discharge of any waste in any manner other than as described by this Order is prohibited.

3.4. The effluent dry weather average monthly rate of discharge from the wastewater treatment facility shall not exceed a monthly average of 17 million gallons per day (MGD). The design peak wet weather treatment capacity of the facility is 81 MGD.

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

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

3.7. 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 1.7 (Bypass), is prohibited.

3.8. The discharge of materials and substances in the wastewater that results in any of the following is prohibited:

3.8.1. Float or become floatable upon discharge.

3.8.2. May form sediments which degrade benthic communities or other aquatic life.

3.8.3. Accumulate to toxic levels in marine waters, sediments, or biota.

3.8.4. Decrease the natural light to benthic communities and other marine life.

3.8.5. Result in aesthetically undesirable discoloration of the ocean surface.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.1. **Effluent Limitations – Discharge Point 001**

4.1.1. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001A (secondary treated wastewater) or EFF-001B (secondary treated wastewater including RO concentrate) as described in Attachment E, the Monitoring and Reporting Program:

Table 2. Effluent Limitations for Conventional Pollutants – Secondary Treatment Standards

Parameter	Units	Average Monthly	Average Weekly	Instantaneous Minimum	Instantaneous Maximum
Total Organic Carbon[1] (TOC)	Milligram per liter (mg/L)	20	23		
TOC	Pounds per day (lbs/day)[2]	2,836	3,261		
Total Suspended Solids (TSS)	mg/L	30	45		
TSS	lbs/day[2]	4,253	6,380		
pH	standard units[3]			6	9

[1] As allowed by 40 CFR §133.104, the Executive Officer of the Central Coast Water Board has determined that the Discharger has demonstrated an adequately robust

statistical correlation between TOC and BOD_5 at this facility and has approved the establishment of effluent limitations for TOC to meet the technology-based effluent limitation for BOD_5. A detailed discussion of the approved correlation is provided in Section 4.2.2.2 of the Fact Sheet (Attachment F).

[2] Mass loading limits were calculated using the following formulas: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34); mass limits are calculated for Dm = 139.

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

a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

b. No individual excursion from the range of pH values shall exceed 60 minutes.

Note: 40 CFR 401.17(2)(c) notes that, for the purposes of 40 CFR 401.17, "excursion" is defined as "a*n unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines*." The State Board may adjust the requirements set forth in paragraph 40 CFR 401.17(a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

4.1.1.1. **Percent Removal:** The average monthly percent removal of TOC and TSS shall not be less than 85 percent, with compliance determined by comparing monitoring results at Monitoring Location INF-001 and Monitoring Location EFF-001A.

4.1.1.2. **Dry Weather and Wet Weather Flows:** The annual average dry weather effluent flow from the Facility shall not exceed 17 MGD, with compliance measured at Monitoring Location EFF-001A. The design peak wet weather treatment capacity of the facility is 81 MGD.

4.1.2. When discharging saline waste to the ocean outfall at Discharge Point 001, the pH shall not exceed a minimum of 6.0 standard units and a maximum of 9.0 standard units, with compliance measured at Monitoring Location EFF-001D as described in Attachment E, the Monitoring and Reporting Program.

4.1.3. 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 Attachment E, the Monitoring and Reporting Program:

Table 3. Effluent Limitations for Conventional Pollutants – Ocean Plan Pollutants

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
Oil and Grease	mg/L	25	40	75
Oil and Grease	lbs/day[1]	3,545	5,671	10,634
Settleable Solids	Milliliter per liter (mL/L)	1.0	1.5	3.0
Turbidity	Nephelometric Turbidity Units (NTU)	75	100	225

[1] Mass loading limits were calculated using the following formulas: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34); mass limits are calculated for Dm = 139.

Table 4. Effluent Limitations for the Protection of Marine Aquatic Life

Parameter	Units[1]	6-Month Median[2]	Daily Maximum[3]	Instantaneous Maximum[4]
Total Chlorine Residual	µg/L	280	1,100	8,400
Acute Toxicity	TUa	-	40	-
Chronic Toxicity	TUc	-	140	-
Endosulfan[5] (Dm = 139)	µg/L	1	3	4
Endosulfan[5] (Dm = 150)	µg/L	1	3	4
Endosulfan[5]	lbs/day	0.18	0.36	0.54
Endrin (Dm = 139)	µg/L	0.3	0.6	0.8
Endrin (Dm = 150)	µg/L	0.3	0.6	0.9
Endrin	lbs/day	0.04	0.08	0.12
Hexachlorohexanes (HCH)[5] (Dm = 139)	µg/L	0.6	1	2
Hexachlorohexanes (HCH)[5] (Dm = 150)	µg/L	0.6	1	2
Hexachlorohexanes (HCH)[5]	lbs/day	0.08	0.16	0.24

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

[1] Mass loading limits were calculated using the following formula: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34); mass limits are calculated for Dm = 139.

[2] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered equal to zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration Ce and the observed flow rate, Q, in MGD.

[3] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate, Q, in MGD.

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

[5] As defined in Attachment A – Definitions.

Table 5. Effluent Limitations for the Protection of Human Health – Non-Carcinogens

Parameter	Unit[1]	30-day Average
Acrolein (Dm = 139)	(µg/L)	3.10E+04
Acrolein (Dm = 150)	(µg/L)	3.35E+04
Acrolein	lbs/day	4.40E+03
Bis(2-chloroethoxy) methane (Dm = 139)	(µg/L)	6.20E+02
Bis(2-chloroethoxy) methane (Dm = 150)	(µg/L)	6.69E+02
Bis(2-chloroethoxy) methane	lbs/day	8.79E+01
Bis(2-chloroisopropyl) ether (Dm = 139)	(µg/L)	1.70E+05
Bis(2-chloroisopropyl) ether (Dm = 150)	(µg/L)	1.83E+05
Bis(2-chloroisopropyl) ether	lbs/day	2.41E+04
Chlorobenzene (Dm = 139)	(µg/L)	8.60E+04

Parameter	Unit[1]	30-day Average
Chlorobenzene (Dm = 150)	(µg/L)	9.28E+04
Chlorobenzene	lbs/day	1.22E+04
Dichlorobenzenes[2] (Dm = 139)	(µg/L)	7.10E+05
Dichlorobenzenes[2] (Dm = 150)	(µg/L)	7.66E+05
Dichlorobenzenes[2]	lbs/day	1.01E+05
Diethyl phthalate (Dm = 139)	(µg/L)	3.30E+04
Diethyl phthalate (Dm = 150)	(µg/L)	3.56E+04
Diethyl phthalate	lbs/day	4.68E+03
Dimethyl phthalate (Dm = 139)	(µg/L)	1.10E+08
Dimethyl phthalate (Dm = 150)	(µg/L)	1.19E+08
Dimethyl phthalate	lbs/day	1.56E+07
Ethylbenzene (Dm = 139)	(µg/L)	5.70E+05
Ethylbenzene (Dm = 150)	(µg/L)	6.15E+05
Ethylbenzene	lbs/day	8.08E+04
Hexachlorocyclopentadiene (Dm = 139)	(µg/L)	8.10E+03
Hexachlorocyclopentadiene (Dm = 150)	(µg/L)	8.74E+03
Hexachlorocyclopentadiene	lbs/day	1.15E+03
Nitrobenzene (Dm = 139)	(µg/L)	6.90E+02
Nitrobenzene (Dm = 150)	(µg/L)	7.45E+02
Nitrobenzene	lbs/day	9.78E+01
Toluene (Dm = 139)	(µg/L)	1.20E+07
Toluene (Dm = 150)	(µg/L)	1.29E+07
Toluene	lbs/day	1.70E+06
Tributyltin (Dm = 139)	(µg/L)	2.00E-01
Tributyltin (Dm = 150)	(µg/L)	2.16E-01
Tributyltin	lbs/day	2.84E-02
1,1,1-trichloroethane (Dm = 139)	(µg/L)	7.60E+07
1,1,1-trichloroethane (Dm = 150)	(µg/L)	8.20E+07
1,1,1-trichloroethane	lbs/day	1.08E+07

[1] Mass loading limits were calculated using the following formula: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34); mass limits are calculated for Dm = 139.

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

Table 6. Effluent Limitations for the Protection of Human Health – Carcinogens

Parameter	Unit[1]	30-day Average
Acrylonitrile (Dm = 139)	(µg/L)	13
Acrylonitrile (Dm = 150)	(µg/L)	14
Acrylonitrile	lbs/day	1.84E+00
Aldrin (Dm = 139)	(µg/L)	3.10E-03
Aldrin (Dm = 150)	(µg/L)	3.35E-03
Aldrin	lbs/day	4.40E-04
Benzene (Dm = 139)	(µg/L)	2.20E-05
Benzene (Dm = 150)	(µg/L)	2.37E-05
Benzene	lbs/day	3.12E-06
Benzidine (Dm = 139)	(µg/L)	9.70E-03
Benzidine (Dm = 150)	(µg/L)	1.05E-02
Benzidine	lbs/day	1.38E-03
Beryllium (Dm = 139)	(µg/L)	4.6
Beryllium (Dm = 150)	(µg/L)	4.96
Beryllium	lbs/day	6.52E-01
Bis(2-chloroethyl) ether (Dm = 139)	(µg/L)	6.30
Bis(2-chloroethyl) ether (Dm = 150)	(µg/L)	6.80
Bis(2-chloroethyl) ether	lbs/day	8.93E-01
Bis(2-ethlyhexyl) phthalate (Dm = 139)	(µg/L)	4.90E+02
Bis(2-ethlyhexyl) phthalate (Dm = 150)	(µg/L)	5.29E+02
Bis(2-ethlyhexyl) phthalate	lbs/day	6.95E+01
Carbon tetrachloride (Dm = 139)	(µg/L)	1.30E+03
Carbon tetrachloride (Dm = 150)	(µg/L)	1.40E+03
Carbon tetrachloride	lbs/day	1.84E+02
Chlordane[2] (Dm = 139)	(µg/L)	3.20E+03
Chlordane[2] (Dm = 150)	(µg/L)	3.45E+03
Chlordane[2]	lbs/day	4.54E+02
Chlorodibromomethane (Dm = 139)	(µg/L)	1.20E+03
Chlorodibromomethane (Dm = 150)	(µg/L)	1.29E+03
Chlorodibromomethane	lbs/day	1.70E+02
Chloroform (Dm = 139)	(µg/L)	1.81E+04
Chloroform (Dm = 150)	(µg/L)	1.95E+04
Chloroform	lbs/day	2.56E+03
1,4-dichlorobenzene (Dm = 139)	(µg/L)	2.50E+03
1,4-dichlorobenzene (Dm = 150)	(µg/L)	2.70E+03
1,4-dichlorobenzene	lbs/day	3.54E+02

Parameter	Unit[1]	30-day Average
3,3-dichlorobenzidine (Dm = 139)	(µg/L)	1.1
3,3-dichlorobenzidine (Dm = 150)	(µg/L)	1.19
3,3-dichlorobenzidine	lbs/day	1.56E-01
1,2-dichloroethane (Dm = 139)	(µg/L)	3.89E+03
1,2-dichloroethane (Dm = 150)	(µg/L)	4.20E+03
1,2-dichloroethane	lbs/day	5.52E+02
1,1-dichloroethylene (Dm = 139)	(µg/L)	1.25E+02
1,1-dichloroethylene (Dm = 150)	(µg/L)	1.35E+02
1,1-dichloroethylene	lbs/day	1.77E+01
Dichloromethane (Dm = 139)	(µg/L)	6.26E+04
Dichloromethane (Dm = 150)	(µg/L)	6.75E+04
Dichloromethane	lbs/day	8.87E+03
Dieldrin (Dm = 139)	(µg/L)	5.60E-03
Dieldrin (Dm = 150)	(µg/L)	6.04E-03
Dieldrin	lbs/day	7.94E-04
2,4-dinitrotoluene (Dm = 139)	(µg/L)	3.60E+03
2,4-dinitrotoluene (Dm = 150)	(µg/L)	3.88E+03
2,4-dinitrotoluene	lbs/day	5.10E+02
1,2-diphenylhydrazine (Dm = 139)	(µg/L)	22.0
1,2-diphenylhydrazine (Dm = 150)	(µg/L)	23.74
1,2-diphenylhydrazine	lbs/day	3.12E+00
Halomethanes[2] (Dm = 139)	(µg/L)	1.80E+04
Halomethanes[2] (Dm = 150)	(µg/L)	1.94E+04
Halomethanes[2]	lbs/day	2.55E+03
Heptachlor (Dm = 139)	(µg/L)	7.00E-03
Heptachlor (Dm = 150)	(µg/L)	7.55E-03
Heptachlor	lbs/day	9.92E-04
Heptachlor epoxide (Dm = 139)	(µg/L)	2.80E-03
Heptachlor epoxide (Dm = 150)	(µg/L)	3.02E-03
Heptachlor epoxide	lbs/day	3.97E-04
Hexachlorobenzene (Dm = 139)	(µg/L)	2.90E-02
Hexachlorobenzene (Dm = 150)	(µg/L)	3.13E-02
Hexachlorobenzene	lbs/day	4.11E-03
Hexachlorobutadiene (Dm = 139)	(µg/L)	2.00E+03
Hexachlorobutadiene (Dm = 150)	(µg/L)	2.16E+03
Hexachlorobutadiene	lbs/day	2.84E+02

Parameter	Unit[1]	30-day Average
Hexachloroethane (Dm = 139)	(µg/L)	3.50E+02
Hexachloroethane (Dm = 150)	(µg/L)	3.78E+02
Hexachloroethane	lbs/day	4.96E+01
Isophorone (Dm = 139)	(µg/L)	1.00E+05
Isophorone (Dm = 150)	(µg/L)	1.08E+05
Isophorone	lbs/day	1.42E+04
N-nitrosodimethylamine (Dm = 139)	(µg/L)	1.00E+03
N-nitrosodimethylamine (Dm = 150)	(µg/L)	1.08E+03
N-nitrosodimethylamine	lbs/day	1.42E+02
N-nitrosodi-N-propylamine (Dm = 139)	(µg/L)	53
N-nitrosodi-N-propylamine (Dm = 150)	(µg/L)	57.19
N-nitrosodi-N-propylamine	lbs/day	7.51E+00
N-nitrosodiphenylamine (Dm = 139)	(µg/L)	2.50E+02
N-nitrosodiphenylamine (Dm = 150)	(µg/L)	2.70E+02
N-nitrosodiphenylamine	lbs/day	3.54E+01
Polychlorinated Biphenyls (PCBs)[2] (Dm = 139)	(µg/L)	1.90E-05
Polychlorinated Biphenyls (PCBs)[2] (Dm = 150)	(µg/L)	2.05E-05
Polychlorinated Biphenyls (PCBs)[2]	lbs/day	2.69E-06
TCDD equivalents[2] (Dm = 139)	(µg/L)	5.50E-07
TCDD equivalents[2] (Dm = 150)	(µg/L)	5.94E-07
TCDD equivalents[2]	lbs/day	7.80E-08
1,1,2,2-tetrachloroethane (Dm = 139)	(µg/L)	3.20E+02
1,1,2,2-tetrachloroethane (Dm = 150)	(µg/L)	3.45E+02
1,1,2,2-tetrachloroethane	lbs/day	4.54E+01
Tetrachloroethylene (Dm = 139)	(µg/L)	2.80E+02
Tetrachloroethylene (Dm = 150)	(µg/L)	3.02E+02
Tetrachloroethylene	lbs/day	3.97E+01
Toxaphene (Dm = 139)	(µg/L)	2.90E+02
Toxaphene (Dm = 150)	(µg/L)	3.13E+02
Toxaphene	lbs/day	4.11E+01
Trichloroethylene (Dm = 139)	(µg/L)	3.80E+03
Trichloroethylene (Dm = 150)	(µg/L)	4.10E+03
Trichloroethylene	lbs/day	5.39E+02
1,1,2-trichloroethane (Dm = 139)	(µg/L)	1.30E+03
1,1,2-trichloroethane (Dm = 150)	(µg/L)	1.40E+03

Parameter	Unit[1]	30-day Average
1,1,2-trichloroethane	lbs/day	1.84E+02
Vinyl chloride (Dm = 139)	(µg/L)	5.00E+03
Vinyl chloride (Dm = 150)	(µg/L)	5.40E+03
Vinyl chloride	lbs/day	7.09E+02

[1] Mass loading limits were calculated using the following formula: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34); mass limits are calculated for Dm = 139.

[2] As defined in Attachment A – Definitions.

4.2. **Land Discharge Specifications – Not Applicable**

4.3. **Recycling Specifications – Discharge Point 002**

As specified below, this Order conditionally authorizes the Discharger to act as the producer of recycled (or reclaimed) water and to reuse recycled water onsite at the Facility and for other purposes. The Discharger is responsible for compliance with all applicable requirements associated with the production and onsite use of recycled water as specified within this Order. The City filed a California Code of Regulations title 22 engineering report in August 2022 that described recycled water quality as disinfected tertiary. The distribution and offsite reuse of recycled water produced by the Facility is subject to State Water Board Order WQ 2016-0068-DDW, *State Water Board General Water Reclamation Requirements for Recycled Water Use*, or other applicable permit, dependent on final use.

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

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

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

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

4.3.5. The Discharger shall maintain compliance with the above limitations at Discharge Point 002, with compliance measured at Monitoring Location EFF-001C as described in the attached MRP.

4.3.6. Recycled water shall not exceed any of the following turbidity limits:

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

4.3.6.2. 5 NTU more than 5 percent of the time within a 24-hour period, and

4.3.6.3. 10 NTU at any time.

4.3.7. The median concentration of total coliform bacteria measured in the disinfected recycled water shall not exceed the following limits:

4.3.7.1. A most probable number (MPN) of 2.2 per 100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed,

4.3.7.2. An MPN of 23 per 100 mL in more than one sample in any 30-day period, and

4.3.7.3. No sample shall exceed 240 MPN per 100 mL.

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

4.3.9. 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.

4.3.10. Recycled water shall not exceed any maximum contaminant level established pursuant to sections 116275(c)(1) and (d) of the California Health and Safety Code or established by the U.S. Environmental Protection Agency.

4.3.11. 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.

4.3.12. 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.

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

5. **RECEIVING WATER LIMITATIONS**

5.1. **Surface Water Limitations**

Receiving water limitations are based on water quality objectives contained in the Ocean Plan and are a required part of this Order. These receiving water limitations are designed to minimize the influence of this discharge to the receiving water. The Discharger shall comply with the below receiving water limitations.

5.1.1. **Bacterial Characteristics**

5.1.1.1. Water-Contact Standards. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is farther from the shoreline, and in areas outside this zone used for

water contact sports, as determined by the Central Coast Water Board (i.e., waters designated REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column. For all compliance mandated analyses of bacteria, the use of methods denominated by CFU/100 mL and MPN/100 mL are permitted and accepted as equivalent methods as per the methods listed at 40 CFR 136.

5.1.1.1.1. Fecal Coliform. 30-day geometric mean of fecal coliform density not to exceed 200 MPN per 100 mL, calculated using the five most recent samples from each site, and a single sample maximum not to exceed 400 MPN per 100 mL.

5.1.1.1.2. Enterococci. A six-week rolling geometric mean of enterococci not to exceed 30 colony forming units (CFU) per 100 mL, calculated weekly, and a statistical threshold value (STV) of 110 CFU/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner using U.S. EPA Method 1600 or other equivalent method to measure culturable enterococci.

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

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

5.1.1.3. The zones of initial dilution of wastewater outfalls shall be excluded from designation as kelp beds for the purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

5.1.2. **Physical Characteristics**

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

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

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

5.1.2.4. 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.

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

5.1.3. **Chemical Characteristics**

5.1.3.1. The dissolved oxygen concentration shall not, at any time, be depressed more than 10 percent from that which occurs naturally or fall below 5.0 mg/L as the

result of the discharge of oxygen demanding waste materials. The mean annual dissolved oxygen concentration shall not be less than 7.0 mg/L.

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

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

5.1.3.4. The concentrations of substances set forth in chapter II, Table 3 of the Ocean Plan shall not be increased in marine sediments to the degree that would degrade indigenous biota.

5.1.3.5. The concentration of organic materials in marine sediments shall not be increased to that which would degrade marine life.

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

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

5.1.4. **Biological Characteristics**

5.1.4.1. Marine communities, including vertebrate and plant species, shall not be degraded.

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

5.1.4.3. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5.1.5. **Radioactivity**

5.1.5.1. Discharge of radioactive waste shall not degrade marine life.

5.1.5.2. 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.

5.1.6. **General Standards**

5.1.6.1. 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 Board, as required by the CWA and regulations adopted thereunder.

5.1.6.2. 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.

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

5.2. **Groundwater Limitations – Not Applicable**

6. **PROVISIONS**

6.1. **Standard Provisions**

6.1.1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D.

6.1.2. **Central Coast Water Board Standard Provisions.** The Discharger shall comply with Central Coast Water Board Standard Provisions in Attachment D.

6.2. **Monitoring and Reporting Program (MRP) Requirements**

Pursuant to CWC 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 Title 40 of the Code of Federal Regulations (40 C.F.R.) part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

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

6.3. **Special Provisions**

6.3.1. **Reopener Provisions**

6.3.1.1. This Order may be reopened and modified in accordance with NPDES regulations at 40 C.F.R. parts 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any U.S. EPA-approved, new state water quality objectives.

6.3.1.2. 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 Ocean Plan Table 3 water quality objective.

6.3.2. **Special Studies, Technical Papers, and Additional Monitoring Requirements**

6.3.2.1. **Toxicity Notification Requirements**

The Discharger shall notify the Central Coast Water Board in writing within 14 days of exceedance of a chronic toxicity trigger of 140 TUc (Toxicity Units Chronic). This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of

actions required by this permit; and schedule for actions not yet completed or reasons that no action has been taken. Written notification should also be sent within 14 days to U.S. EPA Region 9 Wastewater Enforcement Section Manager at R9NPDES@epa.gov.

6.3.2.2. **Toxicity Reduction Requirements**

If the discharge consistently exceeds the chronic toxicity trigger of 140 TUc, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE), defined in Attachment A, in accordance with the Discharger's TRE Workplan.

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

When monitoring detects chronic toxicity in the effluent above 140 TUc the Discharger shall resample immediately, if the discharge is continuing, and retest for chronic toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer as soon as possible after receiving monitoring results. The Executive Officer will determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. When the Central Coast Water Board Executive Officer requires the Discharger to conduct a TRE, the TRE shall be conducted considering guidance provided by the U.S. EPA's *Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3* (EPA document Nos. EPA 600/6-91/005F, 600/R-92/080, and 600/R-92/081, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

Table 7. Toxicity Reduction Evaluation Schedule

Actions Step	When Required
Take all reasonable measures necessary to immediately reduce toxicity, where the source is known.	Within 24 hours of identification of noncompliance.
Initiate the TRE in accordance with the Workplan.	Within 7 days of notification by the Executive Officer.
Conduct the TRE following the procedures in the Workplan.	Within the period specified in the Workplan (not to exceed one year without an approved Workplan).

Submit the results of the TRE, including summary of findings, required corrective action, and all results and data.	Within 60 days of completion of the TRE.
Implement corrective actions to meet Permit limits and conditions.	To be determined by the Executive Officer.

The Discharger shall develop and maintain a TRE workplan that describes steps that the Discharger intends to follow if a toxicity trigger established in this Order is exceeded in the discharge. The workplan shall be prepared in accordance with current technical guidance and reference material, including EPA/833/B-99-002, and shall describe, at a minimum:

6.3.2.2.1. Specific actions the Discharger will take to investigate and identify the causes of toxicity, including a TRE WET monitoring schedule;

6.3.2.2.2. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

6.3.2.2.3. A schedule for these actions.

6.3.2.3. **Initial Investigation TRE Workplan**

Within 90 days of the permit effective date, the Discharger shall prepare and submit a copy of its Initial Investigation TRE Workplan (1-2 pages) to the Central Coast Water Board for review. This workplan is subject to approval and modification by the Central Coast Water Board, and shall include steps the Discharger intends to implement if toxicity is measured above a toxicity trigger. The Workplan should include, at minimum:

6.3.2.3.1. 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;

6.3.2.3.2. 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

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

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

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

6.3.2.4.2. If the toxicity trigger is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same

species and test method, approximately every two weeks, over a 12-week period. This testing shall begin within 14 days of receipt of test results exceeding the toxicity trigger. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to their regular testing frequency.

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

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

6.3.2.5. **Receiving Water Monitoring for Bacteria**

The Discharger shall conduct surf zone and ocean receiving water monitoring for bacteria, in accordance with section 8.1 of the MRP, if any of the following occur: 1) effluent bacterial monitoring results exceed receiving water bacterial standards for water-contact or shellfish harvesting specified in section 5.1.1 of the Order, 2) effluent violations that indicate potential for elevated bacteria concentrations in effluent, or 3) operational changes, plant upsets, or process failures that the Discharger determines have the potential to cause bacteria levels outside normal ranges in the effluent. Results of the increased monitoring for bacteria shall be summarized and submitted in a report to the Central Coast Water Board Executive Officer.

6.3.2.6. **Saline Waste Disposal Study**

Prior to discharging saline waste through the ocean outfall, the Discharger shall submit a saline waste disposal study to the Executive Officer and to the MBNMS for approval. The study shall include, at a minimum, the following elements: (1) a projection of the saline waste volume and characteristics, (2) an assessment of the impact of the increased saline waste volume on permit compliance, (3) an assessment of the impact of the increased saline waste volume on the minimum probable initial dilution at the point of discharge, (4) a detailed description of any saline waste disposal facilities that are proposed to accommodate the increased volume of saline waste flow metering and sampling, and (5) a schedule for the design and construction of the new saline waste disposal facilities.

6.3.2.7. **Ocean Outfall and Diffuser Inspection**

At least once per year, the Discharger shall conduct a dye dilution study 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. Within a week of the dye dilution study, an outfall inspection by divers and/or remotely operated vehicle (ROV) shall be conducted to check the structural integrity at the leak site and diffuser and possible external blockage of diffuser ports by sand and/or silt deposition. These studies shall be conducted when there are high flows of at least 4 MGD. Fluorometer measurements shall be collected during the underwater inspection to provide data that helps record the magnitude of the leak. The two inspections shall be conducted together in order to determine the magnitude and dilution of the leak measured during the inspection. Results of the outfall inspections shall be reported in the applicable annual report.

6.3.3. **Best Management Practices and Pollution Prevention**

6.3.3.1. **Pollutant Minimization Program**

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) when directed by the Central Coast Water Board Executive Officer or as further described below when there is evidence (e.g., sample results reported as “Detected, but Not Quantified” (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:

6.3.3.1.1. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported Minimum Level (ML); or

6.3.3.1.2. 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 the MRP (Attachment E) section 10.2.4.

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

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

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

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

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

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

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

6.3.3.2.5.1. All PMP monitoring results for the previous year;

6.3.3.2.5.2. A list of potential sources of the reportable priority pollutants;

6.3.3.2.5.3. A summary of all actions undertaken pursuant to the control strategy; and

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

6.3.4. **Construction, Operation and Maintenance Specifications**

6.3.4.1. If applicable, the Discharger must enroll in State Water Board Order 2009-0009-DWQ, *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* and any subsequent order.

6.3.4.2. The Facility shall be operated as specified under Standard Provision 1.4 of Attachment D.

6.3.5. **Special Provisions for Publicly Owned Treatment Works (POTWs)**

6.3.5.1. **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 Water Coast Board, will oversee compliance with 40 C.F.R. part 503.

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are the permittee's responsibilities. This also includes biosolids annual reports, including major POTWs that prepare sewage sludge and other facilities designated as "Class 1 sludge management facilities," electronic reporting requirements. Permittees must submit biosolids annual reports using EPA's NPDES Electronic Reporting Tool ("NeT")

https://cdx.epa.gov/

Reports for each calendar year are due by February 19th of the following year. Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are the responsibility of the permittee.

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

The treatment, storage, disposal, or reuse of sewage sludge and solids must not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited into waters of the State. The Discharger is responsible for ensuring that all biosolids produced at its Facility are used or disposed of in accordance with the above rules, regardless of whether the Discharger uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must adhere to these rules.

6.3.5.2. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2022-0103-DWQ)**

The Discharger is subject to the requirements of and must separately comply with State Water Board Order 2022-0103-DWQ, *Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems*, including monitoring and reporting requirements, and any subsequent revision to that order. This General Permit, adopted on December 6, 2022, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly

owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows.

6.3.6. **Special Provisions for Recycled Water Management Planning**

6.3.6.1. **Recycled Water Management Plan – Phase I**

Within one year of the effective date of this Order, the Discharger shall submit to the Central Coast Water Board Executive Officer a phase I recycled water management plan (Phase I Plan) for review and approval. At a minimum, the Phase I Plan shall include steps the Discharger will take over the duration of the term of this Order to generate all elements of the Phase II Plan identified in section 6.3.6.2. Immediately after Executive Officer approval, the Discharger shall begin preparing the Phase II Plan components pursuant to the Phase I Plan.

6.3.6.2. **Recycled Water Management Plan – Phase II**

With the Report of Waste Discharge, due 180 days prior to expiration of this Order, the Discharger shall submit a phase II recycled water management plan (Phase II Plan) describing how the Discharger will maximize the amount of treated effluent used for beneficial reuse, with the goal of achieving maximum beneficial reuse.[2] At a minimum, the Phase II Plan shall include beneficial reuse options, customer base, an assessment and description of the feasibility of each beneficial reuse option, viability of maximizing reuse, regulatory framework, financial strategy, and stakeholder involvement.

6.3.7. **Other Special Provisions**

6.3.7.1. **Discharges of Stormwater**

Stormwater flows from the wastewater treatment process areas shall be directed to the headworks and discharged with treated wastewater. These stormwater flows constitute all industrial stormwater at this facility and, consequently, this permit regulates all industrial stormwater discharges at this facility along with wastewater discharges.

6.3.7.2. **Climate Change Response Hazards and Vulnerabilities Plan**

With the Report of Waste Discharge submitted for reissuance of this Order, the Discharger shall submit a Climate Change Response Hazards and Vulnerabilities Plan describing the Discharger's long-term approach to identify and address climate change hazards and vulnerabilities at the facility, including all associated infrastructure (e.g., treatment facilities, conveyances to discharge points, discharge facilities). The Climate Change Response Hazards and Vulnerabilities Plan shall, at minimum:

[2] Treated effluent, as used in section 6.3.6, does not include brine discharges from recycled water facilities.

6.3.7.2.1. Identify current approaches being implemented at the facility to reduce greenhouse gas emissions and assess potential approaches to be implemented at the facility to reduce greenhouse gas emissions in the future based on effectiveness in reducing greenhouse gas emissions and feasibility of implementation.

6.3.7.2.2. Identify and prioritize climate change hazards at the facility and assess facility vulnerability to climate change hazards that could cause reduction, loss, or failure of treatment processes and/or critical structures at the facility. For the anticipated life of the facility, accounting for forecasted climatic changes, the plan shall, at a minimum, include analysis of the following:

6.3.7.2.2.1. The range of potential sea level rise flooding scenarios at the facility;

6.3.7.2.2.2. The range of potential temperature scenarios; and

6.3.7.2.2.3. The range of potential extreme low and extreme high influent flow and loading scenarios.

6.3.7.2.3. Prioritize climate change hazards and vulnerabilities at the facility and identify triggers that will initiate responses at the facility.

6.3.7.2.4. Identify and prioritize potential responses to climate change hazard triggers, accounting for a full suite of potential adaptation responses. The Discharger shall prioritize options that achieve long-term facility safety and operation and minimize resource impacts.

6.3.7.2.5. Identify next steps the Discharger will implement to ensure that the facility is safe from and resilient to climate change hazards.

6.3.7.3. **Sanitary Sewer System Requirements**

The Order requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2022-0103-DWQ). This General Permit, adopted on December 6, 2022, is applicable to “public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

• A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:

• greater than one (1) mile in length (each individual sanitary sewer system);

• one mile or less in length where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, or

• A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.”

The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows.

6.3.8. **Compliance Schedules – Not Applicable**

7. COMPLIANCE DETERMINATION

7.1. General

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP (Attachment E) 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).

7.2. 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 DNQ, or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

7.2.1. 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.

7.2.2. 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.

7.3. 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.

7.4. **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 noncompliance. 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.

7.5. **Maximum Daily Effluent Limitation (MDEL)**

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

ATTACHMENT A – DEFINITIONS

Acute Toxicity

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

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

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

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

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

where:

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

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

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic
Substances that are known to cause cancer in living organisms.

Central Coast Long-Term Environmental Assessment Network (CCLEAN)
The long-term integrated Regional Monitoring Program implemented by a consortium of dischargers to fulfill receiving water compliance monitoring requirements and designed to help municipal agencies and resource managers protect the quality of nearshore marine waters in the Monterey Bay area.

Chlordane
The sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

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

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

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

b. No Observed Effect Level (NOEL)

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

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

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

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

DDT
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)
Those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
The sum of 1,2- and 1,3-dichlorobenzene.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dilution Credit
The amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

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 the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

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

Estuaries and Coastal Lagoons
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 (CWC), Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Geometric Mean (GM)
A type of mean or average that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geometric mean is defined as the nth root of the product of n numbers. The formula is expressed as: GM = $[(x1)(x2)(x3)\ldots(xn)]^{1/n}$, where xi is the sample value and n is the number of samples taken. A geometric mean is also called the log mean.

Halomethanes
The sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

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

The indirect potable reuse (IPR) treatment system
The Advanced Water Purification Facility (AWPF) treatment processes at the Chanticleer site will consist of ozone (O3) pre-treatment, membrane filtration (MF), reverse osmosis (RO), and an ultraviolet (UV) light advanced oxidation process (AOP). The IPR product water is sent to injection wells.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume

reaches a fixed distance from the discharge to be specified by the Central Coast Water Board, whichever results in the lower estimate for initial dilution.

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

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

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, kelp beds 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, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

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.

Mixing Zone

A limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

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)
Sample results which are less than the laboratory's MDL.

Ocean Waters
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. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent Pollutants
Substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP)
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 a priority pollutant(s) 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.

Polychlorinated Biphenyls (PCBs)
In the California Ocean Plan PCBs are 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. PCBs analyzed for the sum of 209 congeners using U.S. EPA proposed method 1668c meet the CCLEAN monitoring obligations.

Polynuclear Aromatic Hydrocarbons (PAHs)
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.

Reported Minimum Level (RL)
Also known as the Reporting Level or RL, the reported ML 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.

Reverse Osmosis Concentrate (ROC)
Concentrate from advanced treatment processes used to treat municipal wastewater for indirect potable reuse.

Saline Waste
High salinity wastewaters from industrial users discharged to the ocean outfall through the ocean outfall transmission main. The saline waste includes the waste solutions from ion exchange regeneration. This waste is saltier than wastewater and RO Concentrate, and the waste stream is a metered discharge to the ocean outfall transmission main.

Sanitary Sewer Overflow
Any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system. Sanitary sewer overflows include: (1) overflows or releases of untreated or partially treated wastewater that reach waters of the United States; (2) overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and (3) wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

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

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 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 SWQPAs and require special protections afforded by the Ocean Plan.

Statistical Threshold Value (STV)
A set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

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

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

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

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

ATTACHMENT B – MAP

Figure B-1: Vicinity Map

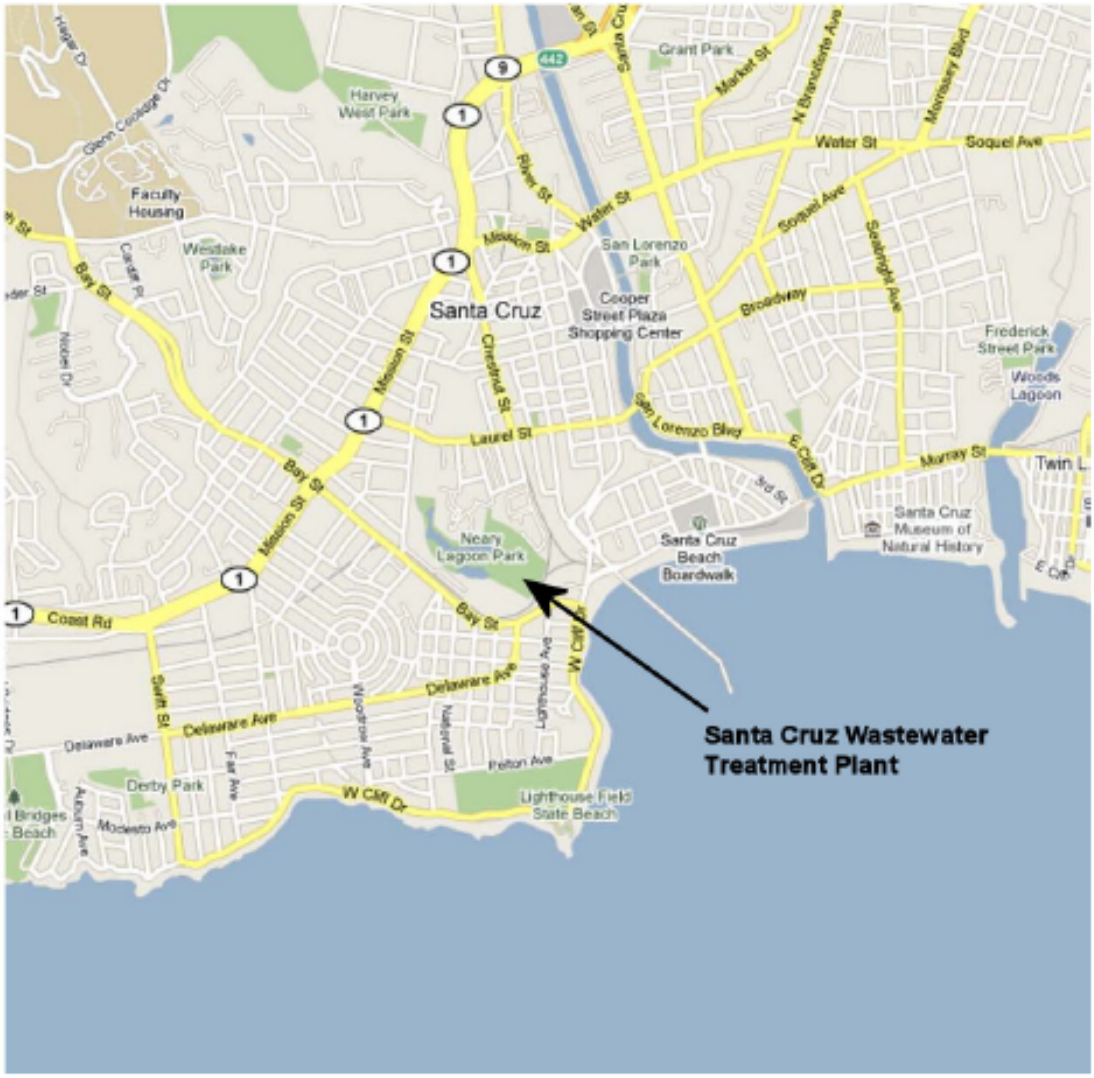


Figure B-2: Santa Cruz Wastewater Treatment Plant Site Plan

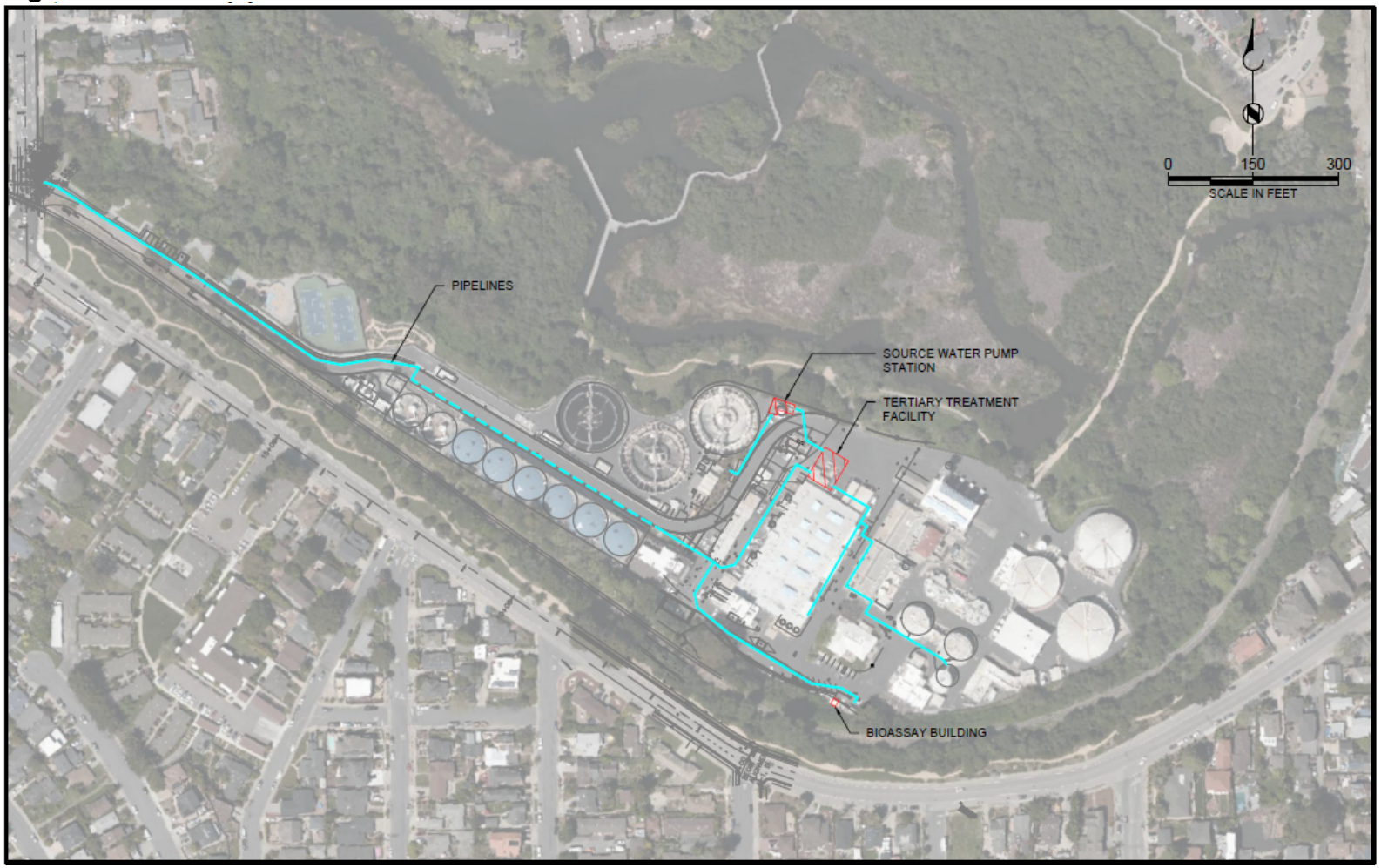


Figure B-3: Offshore Monitoring Locations

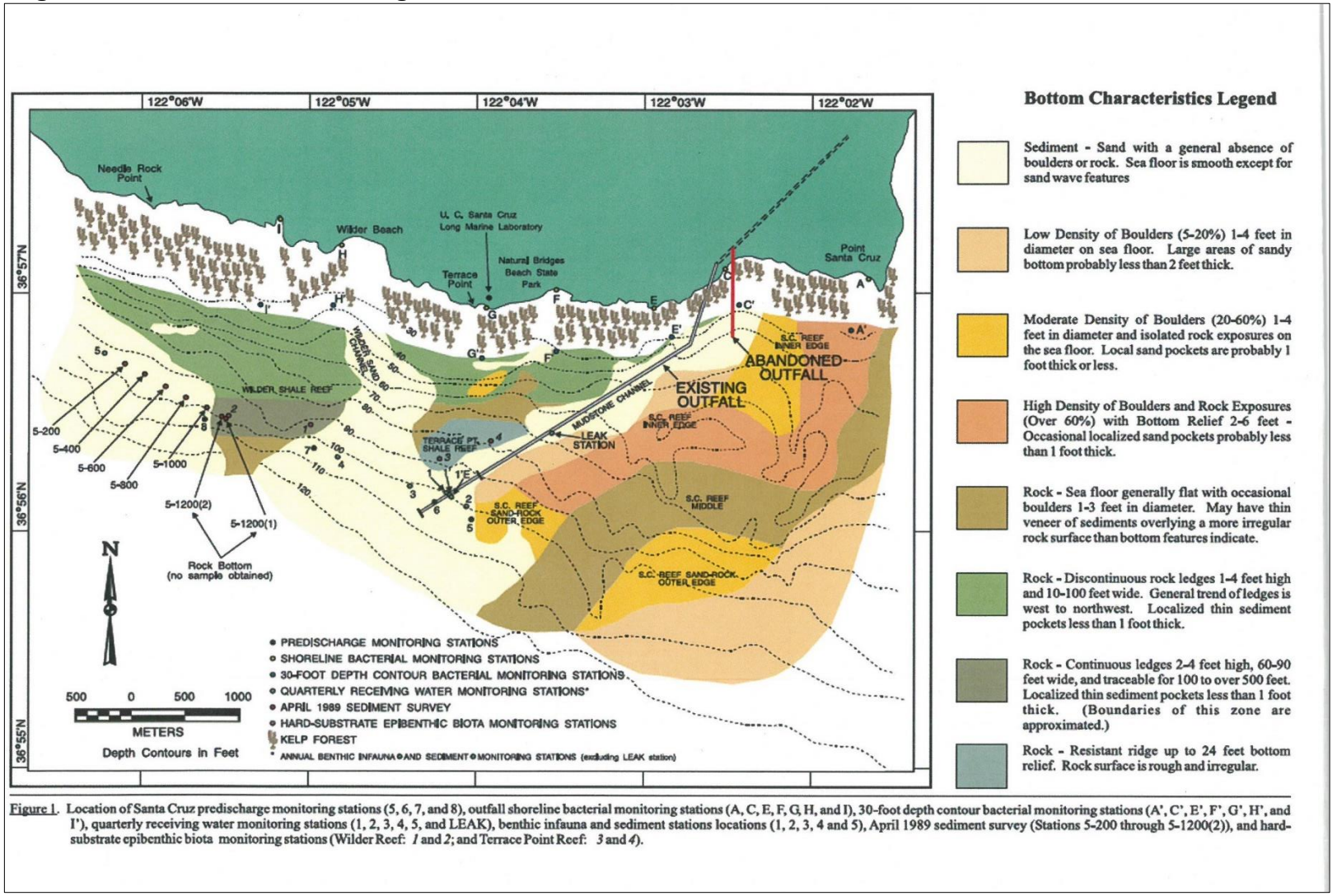
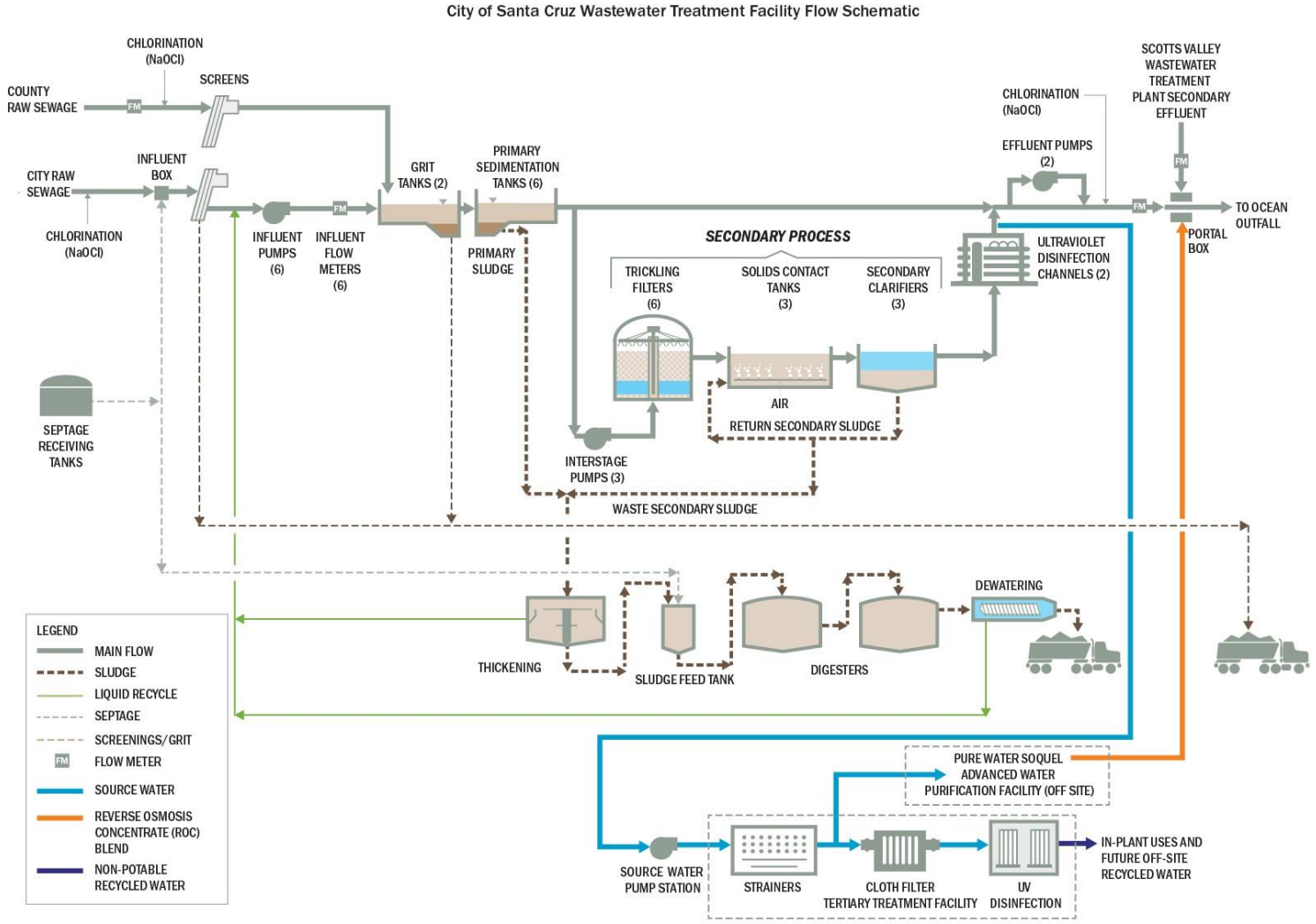


Figure 1. Location of Santa Cruz predischarge monitoring stations (5, 6, 7, and 8), outfall shoreline bacterial monitoring stations (A, C, E, F, G, H, and I), 30-foot depth contour bacterial monitoring stations (A', C', E', F', G', H', and I'), quarterly receiving water monitoring stations (1, 2, 3, 4, 5, and LEAK), benthic infauna and sediment stations locations (1, 2, 3, 4 and 5), April 1989 sediment survey (Stations 5-200 through 5-1200(2)), and hard-substrate epibenthic biota monitoring stations (Wilder Reef: *1* and *2*; and Terrace Point Reef: *3* and *4*).

ATTACHMENT C – PROCESS FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. **Duty to Comply**

1.1.1. 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 (CWC) 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); CWC §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

1.1.2. 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).)

1.2. **Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

1.3. **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).)

1.4. **Proper Operation and Maintenance**

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

1.5. **Property Rights**

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

1.5.2. 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).)

1.6. **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); CWC §§ 13267, 13383):

1.6.1. 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); CWC §§ 13267, 13383);

1.6.2. 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); CWC §§ 13267, 13383);

1.6.3. 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); CWC, §§ 13267, 13383); and

1.6.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, 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.)

1.7. **Bypass**

1.7.1. Definitions

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

1.7.1.2. “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).)

1.7.2. **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 1.7.3, 1.7.4, and 1.7.5 below. (40 C.F.R. § 122.41(m)(2).)

1.7.3. **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)):

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

1.7.3.2. 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

1.7.3.3. The Discharger submitted notice to the Central Coast Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

1.7.4. 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 1.7.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

1.7.5. **Notice**

1.7.5.1. **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, 2023, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

1.7.5.2. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). The notice shall be sent to the Central Coast Water Board. As of December 21, 2023, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

1.8. **Upset**

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

1.8.1. **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 1.8.2 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).)

1.8.2. **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)):

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

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

1.8.2.3. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

1.8.2.4. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 C.F.R. § 122.41(n)(3)(iv).)

1.8.3**. 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).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

2.2. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

2.3. Transfers

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

3. STANDARD PROVISIONS – MONITORING

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

3.2. 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:

3.2.1. 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

3.2.2. 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(l)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

4.1. 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).)

4.2**. Records of monitoring information shall include:**

4.2.1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

4.3.1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. **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); CWC §§ 13267, 13383.)

5.2. **Signatory and Certification Requirements**

5.2.1. 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 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 C.F.R. § 122.41(k).)

5.2.2. 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).).

5.2.3. 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 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

5.2.3.1. The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 C.F.R. § 122.22(b)(1));

5.2.3.2. 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

5.2.3.3. The written authorization is submitted to the Central Coast Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 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 5.2.3 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).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 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).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, 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).)

5.3. **Monitoring Reports**

5.3.1. 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).)

5.3.2. 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 5.10 and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)

5.3.3. 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).)

5.3.4. 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).)

5.4. **Compliance Schedules**

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

5.5. **Twenty-Four Hour Reporting**

5.5.1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather. 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) 24 hour emergency response phone number at 831-236-6797.

As of December 21, 2023, 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 5.10 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).)

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

5.5.2.1. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

5.5.2.2. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.5.3. 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).)

5.6. **Planned Changes**

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

5.6.1. 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 40 C.F.R. 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

5.6.2. 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).)

5.7. **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).)

5.8. **Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 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 5.5 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).)

5.9. **Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Central Coast Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

5.10. **Initial Recipient for Electronic Reporting Data**

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

6. STANDARD PROVISIONS – ENFORCEMENT

6.1. The Central Coast Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13268, 13385, 13386, and 13387.

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. **Non-Municipal Facilities**

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Coast Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

7.1.1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

7.1.1.1. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

7.1.1.2. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4 dinitrophenol and 2 methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

7.1.1.3. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

7.1.1.4. The level established by the Central Coast Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

7.1.2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. § 122.42(a)(2)):

7.1.2.1. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

7.1.2.2. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

7.1.2.3. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

7.1.2.4. The level established by the Central Coast Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

7.2. **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)):

7.2.1. 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

7.2.2. 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).)

7.2.3. 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).)

8. CENTRAL COAST WATER BOARD STANDARD PROVISIONS

8.1. Central Coast Water Board Standard Provisions – Prohibitions

8.1.1. Introduction of “incompatible wastes” to the treatment system is prohibited.

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

8.1.3. Discharge of “toxic pollutants” in violation of effluent standards and prohibitions established under CWA section 307(a) is prohibited.

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

8.1.5. Introduction of pollutants into the collection, treatment, or disposal system by and “indirect discharger” that:

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

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

8.1.5.3. Cause or “significantly contribute” to a violation of any requirement of this Order, is prohibited.

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

8.2. Central Coast Water Board Standard Provisions – Provisions

8.2.1. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by CWC 13050.

8.2.2. 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.

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

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

8.2.5. Publicly owned wastewater treatment plans shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23 of the California Administrative Code.

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

8.2.6.1. Violation of any term or condition contained in this order;

8.2.6.2. Obtaining this order by misrepresentation, or by failure to disclose fully all relevant facts;

8.2.6.3. 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,

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

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

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

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

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

8.2.8.3. Access to new information that affects the germs of the permit, including applicable schedules;

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

8.2.8.5. Other causes set forth under Sub-part D of 40 C.F.R. part 122.

8.2.9. 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:

8.2.9.1. 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).

8.2.9.2. 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.

8.2.10. 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.

8.2.11. 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.

8.2.12. 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.

8.2.13. Production and use of reclaimed water is subject to the approval of the Central Coast Board. Production and use of reclaimed water shall be in conformance with recycling criteria established in chapter 3, title 22, of the California Administrative Code and chapter 7, division 7, of the CWC An engineering report pursuant to section 60323, title 22, of the California Administrative Code is required and a waiver or water recycling requirements from the Central Coast Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

8.3. **Central Coast Water Board Standard Provisions – General Monitoring Requirements**

8.3.1. 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 1.7.13.). 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 1.7.14.).

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

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

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

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

8.3.3. 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.

8.3.4. 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.

8.4. **Central Coast Water Board Standard Provisions – General Reporting Requirements**

8.4.1. 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:

8.4.1.1. 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.).

8.4.1.2. 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.).

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

8.4.1.4. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to Central Coast Water Board Standard Provisions – 8.3.1 above, and Federal Standard Provision – Monitoring 3.2.

However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.

8.4.1.5. 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.

8.4.2. 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.

8.4.3. The “Discharger” shall file a report of waste discharge or secure a waiver from the Central Coast Water Board Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.

8.4.4. 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:

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

8.4.4.2. 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 5.2., the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

8.4.5. All “Dischargers” shall submit reports electronically to the:

State Water Board’s California Integrated Water Quality System (CIWQS) database at: http://ciwqs.waterboards.ca.gov/.

In addition, "Dischargers" with designated major discharges shall submit a copy of each document to U.S. EPA, Region 9’s Discharge Monitoring Report (NetDMR) database at: https://cdxnodengn.epa.gov/net-netdmr/.

Other correspondence may be sent to the Central Coast Region at: centralcoast@waterboards.ca.gov.

8.4.6. 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 2.3.

8.4.7. Except for data determined to be confidential under CWA section 308 (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of U.S. EPA. Please also see Federal Standard Provision – Records 4.3.

8.4.8. By April 1 of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report shall contain the following:

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

8.4.8.2. 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.

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

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

8.4.8.5. The date of the facility’s Operation and Maintenance Manual (including contingency plans as described in Provision 8.2.9), the date the manual was last reviewed, and whether the manual is complete and valid for the current facility.

8.4.8.6. A discussion of the laboratories used by the discharger to monitor compliance with effluent limits and a summary of performance relative to section 8.3, General Monitoring Requirements.

8.4.8.7. 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.

8.4.8.8. 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."

8.5. **Central Coast Water Board Standard Provisions – General Pretreatment Provisions**

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

8.5.1.1. By the date specified therein;

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

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

8.6. **Central Coast Water Board Standard Provisions – Enforcement**

8.6.1. 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.

8.6.2. 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.

8.7. **Central Coast Water Board Standard Provisions – Definitions (Not otherwise included in Attachment A to this Order)**

8.7.1. 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.

8.7.2. "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".

8.7.3. "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.)

8.7.4. "Duly Authorized Representative" is one where:

8.7.4.1. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision 5.2.;

8.7.4.2. 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,

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

8.7.5. 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 Water Board Standard Provision – Provision 8.7.2. and instantaneous maximum limits.

8.7.6. "Hazardous substance" means any substance designated under 40 C.F.R. part 116 pursuant to section 311 of the CWA.

8.7.7. "Incompatible wastes" are:

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

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

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

8.7.7.4. 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,

8.7.7.5. 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.

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

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

Log Mean = (C1 x C2 x...x 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.

8.7.10. "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.

8.7.11. 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 8.7.10, 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.

8.7.12. “Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision 8.7.10, 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.

8.7.13. "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.

8.7.14. "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.

8.7.15. "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.

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

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

8.7.18. "Primary Industry Category" means any industry category listed in 40 C.F.R. part 122, Appendix A.

8.7.19. "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 – $C_{effluent}$ / $C_{influent}$)

8.7.20. "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.

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

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

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

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

8.7.22.3. 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

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

8.7.23. "Toxic Pollutant" means any pollutant listed as toxic under section 307 (a) (1) of the CWA or under 40 C.F.R. part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions 5.5.).

8.7.24. "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

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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. California Water Code (CWC) sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This Monitoring and Reporting Program (MRP) establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

1. GENERAL MONITORING PROVISIONS

1.1. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), in accordance with the provision of CWC section 13176, and must include quality assurance/quality control data with their reports.

1.2. 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.

1.3. 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.

1.3.1. *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. https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nbsspecialpublication421.pdf

1.3.2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. https://www.usbr.gov/tsc/techreferences/mands/wmm/index.htm

1.3.3. *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. https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nbsspecialpublication484v2.pdf

1.3.4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency (U.S. EPA), Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. https://www.epa.gov/compliance/compliance-inspection-manual-national-pollutant-discharge-elimination-system

1.4. 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. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

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

1.6. 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 toxic pollutants specified in Table 3 of the California Ocean Plan shall be conducted in accordance with procedures described in the California Ocean Plan and restated in this MRP.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point	Monitoring Location Name	Monitoring Location Description
--	INF-001	Influent wastewater prior to treatment and following all significant inputs to the collection system or to the headworks of untreated wastewater, upstream of any in-plant return flows, where representative samples of wastewater influent can be obtained.
001	EFF-001A	Location where representative sample of secondary-treated effluent discharged through the ocean outfall can be collected, after treatment and before contact with receiving water. Latitude: 36 ?, 56', 08 " N, Longitude: 122 ?, 04 ', 08 " W

Discharge Point	Monitoring Location Name	Monitoring Location Description
	EFF-001B	Location where representative sample of commingled effluent[3] (secondary-treated wastewater and reverse osmosis concentrate (ROC)) discharged through the ocean outfall can be collected, after treatment and before contact with receiving water. This includes the total component of WRF secondary-treated effluent and ROC blend to be discharged through the ocean outfall via the ocean outfall transmission line.
002	EFF-001C (formerly EFF-002 in R3-2017-0030)	Location where representative sample of tertiary recycled water can be collected, after treatment and prior to discharge or distribution.
	EFF-001D	Location where representative sample of saline waste discharged through the ocean outfall can be collected, before contact with receiving water.
	LEAK STATION	Leak along the outfall line approximately on the 65-foot depth contour line.
	BIO-001	The last point in the biosolids handling process where representative samples of residual solids from the treatment process can be obtained.
	RSW-A	Receiving water at the Point of Santa Cruz at the 30-ft depth contour.
	RSW-C	Receiving water at the surf at old outfall line at the 30-ft depth contour.
	RSW-E	Receiving water 610 meters west of the outfall line crossing the beach at the 30-ft depth contour.
	RSW-F	Receiving water at the Natural Bridges State Beach at the 30-ft depth contour.
	RSW-F	Receiving water at the Natural Bridges State Beach at the 30-ft depth contour.

[3] To collect a representative sample without the influence from Scotts Valley's discharge, future monitoring for compliance reporting will consist of a real-time flow proportioning system that will combine water from the secondary effluent and ROC pipeline prior to the Tunnel Portal Box. This sampling approach will be used to collect grab and composite samples, and will also provide a continuous flow of commingled water to the City of Santa Cruz's bioassay lab.

Discharge Point	Monitoring Location Name	Monitoring Location Description
	RSW-G	Receiving water at Terrace Point at the 30-ft depth contour.
	RSW-H	Receiving water 1,180 meters upcoast of Terrace Point at the 30-ft depth contour.
	RSW-I	Receiving water, 2,080 meters upcoast of Terrace Point at the 30-ft depth contour.

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

3. INFLUENT MONITORING REQUIREMENTS

3.1. **Monitoring Location INF-001**

3.1.1. The Discharger shall monitor influent to the Facility at Monitoring Location INF-001 as below:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	Million gallons per day (MGD)	Metered	Continuous
pH	pH Units	Metered	Daily[2]
Total Organic Carbon (TOC)	Milligram per liter (mg/L)	24-hour Composite	1/Week
Total Suspended Solids (TSS)	mg/L	24-hour Composite	1/Week
Ocean Plan Table 3 Pollutants (excluding Acute Toxicity) [2]	Units per Table 3	24-hour Composite	Annually[3],[4]
Pretreatment Requirements [4]	---	---	---

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

[2] The Discharger shall report the daily maximum value and daily minimum pH value for each day.

[3] Annual influent samples shall be collected according to the following schedule: October 2024, September 2025, August 2026, July 2027, and June 2028

[4] Those pollutants identified in Table 3 of the 2019 Ocean Plan. 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 instruct its analytical laboratory to establish calibration standards so that the minimum levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs that are below applicable water quality criteria of Table 3, and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

4. EFFLUENT MONITORING REQUIREMENTS

4.1. **Monitoring Locations EFF-001**

4.1.1. The Discharger shall monitor treated wastewater at Discharge Point 001 at Monitoring Location EFF-001A when discharging secondary-treated effluent only or at Monitoring Location EFF-001B when discharging secondary-treated and ROC blend, in accordance with the following schedule.

Table E-3. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Daily Flow Volume	MG	Metered	1/Day
Maximum Daily Flow	MGD	Metered	Continuous
Mean Daily Flow	MGD	Metered	1/Month
Oil and Grease	mg/L	Grab	1/Week
Settleable Solids	Milliliter per liter (ml/L)	Grab	1/Week
Turbidity	Nephelometric Turbidity Unit (NTU)	Grab	1/Day
Total Coliform	MPN/100mL	Grab	Weekly
Fecal Coliform	MPN/100mL	Grab	Weekly
Enterococci Organisms	CFU/100mL	Grab	Weekly
Temperature	°F	Grab	5/Week
TOC	mg/L	24-hr Composite	Three Times Weekly
TSS	mg/L	24-hr Composite	Every Sixth Day
Chlorine Residual[2]	mg/L	Grab	Continuous
Ammonia	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Silica	mg/L	Grab	Monthly

Parameter	Units	Sample Type	Minimum Sampling Frequency
Urea	mg/L	Grab	Monthly
Acute Toxicity	TU_a	24-hr Composite	1/Quarter (Jan/Apr/Jul/Oct)
Chronic Toxicity	TU_c	24-hr Composite	1/Quarter (Jan/Apr/Jul/Oct)
Total Sulfides	mg/L	Grab	1/Quarter (Jan/Apr/Jul/Oct)
Ocean Plan Table 1 Metals	µg/L	24-hr Composite	Semiannually
Ocean Plan Table 3 Pollutants[1]	µg/L	24-hr Composite	Semiannually

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

[2] The City of Santa Cruz wastewater effluent shall be monitored continually for total chlorine residual when chlorine disinfection is occurring. The City shall review continuous monitoring strip charts and submit a summary (chlorine residual daily range, and daily average) to the Central Coast Water Board with monthly monitoring reports. Grab samples for compliance with effluent limits may be collected at the last accessible measurement location before discharge to the ocean.

4.1.2. The Discharger shall monitor secondary-treated effluent discharged at Monitoring Location EFF-001A as below. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level:

Table E-4. Effluent Monitoring – Monitoring Location EFF-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Volume	MG	Metered	1/Day
Maximum Daily Flow	MGD	Metered	Continuous

Parameter	Units	Sample Type	Minimum Sampling Frequency
Mean Daily Flow	MGD	Calculated	1/Month
TOC	mg/L	24-hour Composite[1]	1/Week
TOC	percent removal	Calculated	1/Week
TSS	mg/L	24-hour Composite[1]	1/Week
TSS	percent removal	Calculated	1/Week
pH	standard units	Grab	1/Week
Oil and Grease	mg/L	Grab	1/Week
Settleable Solids	ml/L	Grab	1/Week
Turbidity	NTU	Metered	1/Day
Total Coliform Bacteria	Most Probable Number (MPN)/100mL	Grab	Weekly
Fecal Coliform Bacteria[2]	MPN/100mL	Grab	Weekly
Enterococcus	CFU/100mL	Grab	Weekly
Temperature	Degrees Celsius	Grab	5/Week
Ammonia, Total as N	mg/L	Grab	1/Month
Chronic Toxicity[3]	Toxicity Units Chronic (TUc)	24-hour Composite[1]	1/Year
Ocean Plan Table 3 Pollutants (excluding Acute Toxicity)[4]	µg/L	24-hour Composite[1]	1/Year

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

[2] Fecal coliform bacteria effluent monitoring shall be conducted daily, instead of once per week, if any of the following occur: 1) effluent bacterial monitoring results exceed receiving water bacterial standards for water-contact or shellfish harvesting specified in section 5.1.1 of the Order, 2) effluent violations that indicate potential for elevated bacteria concentrations in effluent, or 3) operational changes, plant upsets, or process failures that the Discharger determines have the potential to cause bacteria levels outside normal ranges in the effluent. If any of the above-listed items occur, the Discharger shall provide notice in accordance with requirements established by section 6.3.7.1 of the Order and shall conduct daily fecal coliform bacteria effluent monitoring for a minimum of seven days and until the issue that triggered the increased monitoring frequency is resolved. If any of the above listed items are recurring, the Central Coast Water Board Executive Officer may require ongoing daily fecal coliform bacteria effluent monitoring.

[3] Whole effluent chronic toxicity monitoring shall be conducted according to the requirements established in section 5 of this MRP.

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

Table E-5. Effluent Monitoring – Monitoring Location EFF-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency
Duration of Blending	minutes	Calculated	Continuous When Blending
Volume of Blended Effluent Discharged[1]	MG	Metered	Continuous When Blending
TOC	mg/L	24-hour Composite[1]	1/Week
TOC	percent removal	Calculated	1/Week
TSS	mg/L	24-hour Composite[1]	1/Week
TSS	percent removal	Calculated	1/Week
pH	standard units	Grab	1/Week
Oil and Grease	mg/L	Grab	1/Week
Settleable Solids	ml/L	Grab	1/Week
Turbidity	NTU	Metered	1/Day
Total Coliform Bacteria	Most Probable Number (MPN)/100mL	Grab	Weekly
Fecal Coliform Bacteria[2]	MPN/100mL	Grab	Weekly
Enterococcus	CFU/100mL	Grab	Weekly
Temperature	Degrees Celsius	Grab	5/Week
Ammonia, Total as N	mg/L	Grab	1/Month
Chronic Toxicity[2]	Toxicity Units Chronic (TUc)	24-hour Composite[3]	1/Year When Blending
Ocean Plan Table 3 Pollutants (excluding Acute Toxicity)[4]	µg/L	24-hour Composite[3]	1/Year When Blending

[1] Blended effluent shall mean secondary treated wastewater that has been combined with reverse osmosis concentrate from the Pure Water Soquel project.
[2] Whole effluent chronic toxicity monitoring shall be conducted according to the requirements established in section 5 of this MRP.
[3] Composite samples may be taken by a proportional sampling device approved by the Central Coast Water Board Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.
[4] Those pollutants identified in Table 3 of the Ocean Plan (2019). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall instruct its analytical laboratory to establish calibration standards so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 3 of the Ocean Plan; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

4.1.4. When operating the tertiary treated recycled water system, the Discharger shall monitor effluent discharged at Monitoring Location EFF-001C as below. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-6. Effluent Monitoring – Monitoring Location EFF-001C

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Volume	MG	Metered	Continuous When Discharging
Total Dissolved Solids	mg/L	Grab	1/Month When Discharging
Ocean Plan Table 3 Pollutants (excluding Acute and Chronic Toxicity)[1]	µg/L	24-hour Composite[2]	1/Permit Term When Discharging

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

[2] Composite samples may be taken by a proportional sampling device approved by the Central Coast Water Board Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.

4.1.5. If the Discharger chooses to accept hauled saline waste (e.g., from water conditioning units), the Discharger shall monitor saline waste discharged at Monitoring Location EFF-001D as below. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level:

Table E-7. Effluent Monitoring – Monitoring Location EFF-001D[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Daily Flow Volume	MGD	Metered	Continuous When Discharging
pH	standard units	Grab	1/Month When Discharging
Oil and Grease	mg/L	Grab	1/Month When Discharging
Settleable Solids	ml/L	Grab	1/Month When Discharging
Turbidity	NTU	Metered	Continuous When Discharging
Total Dissolved Solids	mg/L	Grab	1/Month When Discharging
Ocean Plan Table 3 Metals[1]	µg/L	24-hour Composite[2]	1/Permit Term When Discharging

[1] Metals identified in Table 3 of the Ocean Plan (2019), including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. 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 instruct its analytical laboratory to establish calibration standards so that the minimum levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs that are below applicable water quality criteria of Table 3 of the Ocean Plan, and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

[2] Composite samples may be taken by a proportional sampling device approved by the Central Coast Water Board Executive Officer or by representative samples from a fully mixed tank.

[3] Only applicable if Discharger accepts saline waste for discharge.

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.1. Chronic Toxicity Monitoring Requirements – Monitoring Location EFF-001A and EFF-001B.

The presence of chronic toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA-821/600/R-95/136; *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA-600-4-01-003; *Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Project*, SWRCB 1996, 96-1WQ; and/or *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA/600/4-87-028 or subsequent editions.

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

Chronic Toxicity (TUc) = 100 / NOEL

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

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

A minimum of three test species with approved test protocols shall be used to measure compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period of no fewer than two sampling events, monitoring can be reduced to the most sensitive species. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

Table E-8. Approved Tests for 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

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

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

[2] Protocol References:

- 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.
- 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.
- SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marin Bioassay Project. 96-1WQ.
- Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1988. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

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

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

The presence of chronic toxicity at more than 140 TUc shall trigger the Toxicity Reduction Evaluation (TRE) requirement of this Order (section 6.3.2.2).

5.2. **Conducting Toxicity Identification Evaluations (TIE) and Toxicity Reduction Evaluations (TRE)**

5.2.1. When triggered, TRE shall be implemented by the Discharger as specified by the Executive Officer. A TIE may be required as part of the TRE.

5.2.2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the U.S. EPA, which include the following:

5.2.2.1. *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I,* (U.S. EPA, 1992a);

5.2.2.2. *Methods for Aquatic Toxicity Identification Evaluations: Phase 1 Toxicity Characterization Procedures, Second Edition* (U.S. EPA, 1991a);

5.2.2.3. *Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity* (U.S. EPA, 1993a); *and*

5.2.2.4. *Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (U.S. EPA, 1993b).*

5.2.3. As part of the TIE investigation, the Discharger shall be required to implement its TRE Workplan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE includes the following:

5.2.3.1. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, August 1999,* EPA/833B-99/002; and

5.2.3.2. *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program* dated March 27, 2001, U.S. EPA Office of Wastewater Management, Office of Regulatory Enforcement.

5.3. **Toxicity Reporting**

5.3.1. The Discharger shall include a full report of toxicity test results with the regular monthly monitoring report and include the following information.

5.3.1.1. Toxicity test results,

5.3.1.2. Dates of sample collection and initiation of each toxicity test, and

5.3.1.3. And/or toxicity discharge triggers (or value).

5.3.2. Toxicity test results shall be reported according to the appropriate guidance – *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, U.S. EPA Office of Water,

PA821-R-02-012 (2002) or the latest edition, or EPA-821-R-02-012 (2002) or subsequent editions.

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

5.3.4. Within 14 days of receipt of a chronic toxicity test result which exceeds 140 TUc, the Discharger shall provide written notification to the Central Coast Water Board Executive Officer of:

5.3.4.1. Findings of the TRE of other investigation to identify the causes of toxicity,

5.3.4.2. Actions the Discharger has taken/will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity. When corrective actions, including TRE, have not been completed, a schedule under which corrective actions will be implemented, or the reason for not taking corrective action, if no action has been taken.

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

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

7. RECYCLING MONITORING REQUIREMENTS

The Discharger shall comply with applicable state and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the State Water Board Division of Drinking Water at title 22, sections 60301 - 60357 of the California Code of Regulations (CCR), Water Recycling Criteria.

7.1. Monitoring Location EFF-001C

7.1.1. When producing recycled water, the Discharger shall monitor recycled water at Monitoring Location EFF-001C as follows:

Table E-9. Recycled Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Daily Flow	MGD	Metered	Continuous
Maximum Daily Flow	MGD	Calculated	1/Day
Mean Daily Flow	MGD	Calculated	1/Day
Total Coliform	MPN/100 mL	Grab	1/Day
Turbidity	NTU	Metered	Continuous
Total Non-Filterable Residue (Suspended Solids)	mg/L	24-hr Composite	1/Month
Total Dissolved Solids	mg/L	24-hr Composite	1/Quarter

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	5/Week

7.1.2. In the event the Discharger is unable to comply with the conditions of the water recycling requirements and prohibitions established in this Order, the Discharger shall immediately notify, via telephone and email, the Central Coast Water Board. Within two weeks of the noncompliance, the Discharger shall submit a written follow-up report to the Central Coast Water Board Executive Officer, which shall explain the reasons for the noncompliance and describe the steps being taken to prevent the problems from recurring.

7.1.3. In the event the Discharger delivers recycled water not meeting the Uniform Statewide Recycling Criteria specification, the Discharger shall immediately notify, via telephone and email, all enrollees of the State Water Board's *General Water Reclamation Requirements for Recycled Water Use* (State Water Board Order No. WQ 2016-0068-DDW), or enrollees of a separate applicable state or Central Coast Water Board permit, with potential to have received recycled water from the Facility.

7.1.4. An annual self-monitoring report shall be submitted to the Central Coast Water Board by April 1 of the following year. The report shall include the following:

7.1.4.1. A letter transmitting self-monitoring reports should accompany each report. The letter shall include a discussion of violations found during the reporting period and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

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

7.2. **Volumetric Reporting of Wastewater and Recycled Water**

Pursuant to *Water Quality Control Policy for Recycled Water*,[4] when producing recycled water, the Discharger shall track volumetric reporting of wastewater and recycled water.

7.2.1. Annual Reporting. The Discharger shall submit an annual report to the State Water Board by April 30 of each calendar year furnished with the information

[4] Water Quality Control Policy for Recycled Water, State Water Quality Control Board, adopted December 11, 2018, page 2, https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf.

detailed in section 7.2.2 of the MRP. The Discharger shall submit this annual report electronically via the State Water Board's Internet GeoTracker system under a site-specific global identification number at: https://geotracker.waterboards.ca.gov/.

7.2.2. Volumetric Monitoring. The Discharger shall report the items described below and provide all volumetric data as acre-feet (af).

7.2.2.1. Influent. Monthly volume of wastewater collected and treated by the wastewater treatment plant.

7.2.2.2. Production. Monthly volume of wastewater treated, specifying level of treatment.

7.2.2.3. Discharge. Monthly volume of treated wastewater discharged to each of the following, specifying level of treatment:

7.2.2.3.1. Inland surface waters, specifying volume required to maintain minimum instream flow.

7.2.2.3.2. Enclosed bays, estuaries and coastal lagoons, and ocean waters.

7.2.2.3.3. Natural systems, such as wetlands, wildlife habitats, and duck clubs, where augmentation or restoration has occurred, and that are not part of a wastewater treatment plant or water recycling treatment plant.

7.2.2.3.4. Underground injection wells, such as those classified by U.S. EPA's Underground Injection Control Program, excluding groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface.

7.2.2.3.5. Land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

7.2.2.4. Reuse. Monthly volume of recycled water distributed.

7.2.2.5. Reuse Categories. Annual volume of treated wastewater distributed for beneficial use in compliance with CCR, title 22 in each of the use categories listed below:

7.2.2.5.1. Agricultural irrigation: pasture or crop irrigation.

7.2.2.5.2. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.

7.2.2.5.3. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.

7.2.2.5.4. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.

7.2.2.5.5. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.

7.2.2.5.6. Geothermal energy production: augmentation of geothermal fields.

7.2.2.5.7. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.

7.2.2.5.8. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.

7.2.2.5.9. Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface.

7.2.2.5.10. Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (California Water Code section 13561).

7.2.2.5.11. Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system as defined in section 116275 of the Health and Safety Code (California Water Code section 13561).

7.2.2.5.12. Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1 **Central Coast Long-Term Environmental Assessment Network (CCLEAN).** The Discharger shall participate in the implementation of the CCLEAN regional monitoring program to fulfill receiving water compliance monitoring requirements and support the following CCLEAN program objectives.

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

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

8.1.3 Determine sources of contaminants to nearshore waters.

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

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

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

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

8.2 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 shall 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-10. 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	Sources, loads, trends, effects and permit compliance for: POPs
			DDTs	
			Dieldrin	
			Chlordanes	
			PCBs	
			Dioxins/Furans	
			PBDEs	
		Two-day, four-liter composites	Pyrethroids	Trends of: Emerging contaminants of concern
			Fipronils	
			Neonicotinoids	
	Monthly	Grab	Ammonia	Sources, loads, trends and permit compliance for: Nutrients
			Nitrate	
			Silica	
			Ortho-Phosphate	
			Urea	
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	PAHs	Sources, loads, trends, effects and permit compliance for: POPs
			DDTs	
			Dieldrin	
			Chlordanes	
			PCBs	
			PBDEs	

Sample Matrix	Sampling Frequency	Sampling Technique	Parameter Sampled	Applicable Water Quality Stressors and Program Objectives
		(particle filter + XAD resin)		
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 Monterey One Water	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
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 DDTs Dieldrin Chlordanes PCBs PBDEs	Sources, loads, trends, effects and permit compliance for: POPs
		Grab	TSS FIBs Ammonia Nitrate Silica Ortho-Phosphate Urea	Effects of: Nutrients and FIBs
	Every 5 years	Database satellite ocean color imagery	Chlorophyll *a*	
Sediments – Six sites along the 80m	Annually in the fall	Sediment Grab	DDTs Dieldrin Chlordanes	Status, effects and alert level

Sample Matrix	Sampling Frequency	Sampling Technique	Parameter Sampled	Applicable Water Quality Stressors and Program Objectives
contour in Monterey Bay, Santa Cruz Inner Harbor, Moss Landing Harbor			PCBs PBDEs Grain size TOC	comparisons for POPs
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 DDTs Dieldrin Chlordanes PCBs PBDEs	Status, trends, effects and alert level comparisons for: POPs and pathogen indicators
		1 composite of 30-40 mussels	Fecal indicator bacteria	

8.2 MBNMS Spill Reporting

In accordance with Standard Provision V.E. (Attachment D), within 24 hours, the Discharger shall report 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.

9. OTHER MONITORING REQUIREMENTS

9.1. **Biosolids, Monitoring, and Notification – BIO-001**

9.1.1. The following information shall be submitted with the annual biosolids report. Adequate detail shall be included to characterize biosolids in accordance with 40 C.F.R. part 503.

9.1.1.1. Annual biosolids production in dry metric tons and percent solids.

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

9.1.1.3. A narrative description of biosolids dewatering and other treatment processes, including process parameters. For example, if biosolids are digested, report

average temperature and retention time of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.

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

9.1.1.4.1. For landfill disposal include:

9.1.1.4.1.1. The Central Coast Water Board WDR numbers that regulate the landfills used,

9.1.1.4.1.2. The present classifications of the landfills used, and

9.1.1.4.1.3. The names and locations of the facilities receiving biosolids.

9.1.1.4.2. For land application include:

9.1.1.4.2.1. The location of the site(s),

9.1.1.4.2.2. The Central Coast Water Board's WDR numbers that regulate the site(s),

9.1.1.4.2.3. The application rate in lbs/acre/year (specify wet or dry), and

9.1.1.4.2.4. Subsequent uses of the land.

9.1.1.4.3. For offsite application by a licensed hauler and composter include:

9.1.1.4.3.1. The name, address and U.S. EPA license number of the hauler and composter.

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

9.1.2. A representative sample of residual solids (biosolids) shall be obtained from the last point in the handling process (i.e., in the dumpster just prior to removal) and shall be analyzed for total concentrations for comparison with Total Threshold Limit Concentration (TTLC) criteria. The Waste Extraction Test shall be performed on any constituent when the total concentration of the waste exceeds ten times the Soluble Threshold Limit Concentration (STLC) limit for that substance. Twelve (12) discrete representative samples shall be collected at separate locations in the biosolids ready for disposal. These 12 samples shall be composited to form one (1) sample for constituent analysis. For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan including number and location of sampling points and collect representative samples.

9.1.3. All reports must be submitted through the NeT e-reporting system (see https://www.epa.gov/biosolids/compliance-and-annual-reporting-guidance-about-clean-water-act-laws for more information).

Table E-11. Biosolids Monitoring Requirements

Parameter	Units[1]	Sample Type	Minimum Sampling Frequency[2]
Quantity Removed	Dry metric tons or yards	Measured	During Removal
Location of Reuse/Disposal	Site		During Removal
Moisture Content	Percent	Grab	1/Year
Ammonia, Total as N	Milligrams per kilogram (mg/kg)	Grab	1/Year
Nitrate, Total as N	mg/kg	Grab	1/Year
Total Phosphorus	mg/kg	Grab	1/Year
pH	Standard units	Grab	1/Year
Oil and Grease	mg/kg	Grab	1/Year
Arsenic	mg/kg	Grab	1/Year
Boron	mg/kg	Grab	1/Year
Cadmium	mg/kg	Grab	1/Year
Chromium (VI)	mg/kg	Grab	1/Year
Copper	mg/kg	Grab	1/Year
Lead	mg/kg	Grab	1/Year
Mercury	mg/kg	Grab	1/Year
Molybdenum	mg/kg	Grab	1/Year
Nickel	mg/kg	Grab	1/Year
Selenium	mg/kg	Grab	1/Year
Silver	mg/kg	Grab	1/Year
Zinc	mg/kg	Grab	1/Year
Priority Pollutants (excluding asbestos)	mg/kg	Grab	1/Year

[1] Total sample (including solids and any liquid portion) to be analyzed and results reported as mg/kg based on the dry weight of the sample.
[2] In compliance with 40 CFR part 503.

9.2. **Ocean Outfall and Diffuser Inspection**

Once per year the Discharger shall visually inspect the entire outfall and diffuser structure (e.g., divers, dye study) to note its structural integrity and any cracks, breaks, leaks, plugged ports, or other actual or potential malfunctions. The inspection shall be completed under conditions of underwater visibility suitable to observe the outfall and diffuser structure. This inspection shall include general

observations and video records of the outfall pipe/diffuser system and the surrounding ocean bottom in the vicinity of the outfall/diffuser. The inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. A report detailing inspection results shall be submitted to the Central Coast Water Board and U.S. EPA as described in Table E-14.

9.3. **Recycled Water Management Planning Progress Report**

The Discharger shall submit an annual progress report evaluating progress towards and completion status of milestones outlined in the phase I recycled water management plan required by section 6.3.6.1 of this Order. The Discharger shall detail its actions towards completing the phase II recycled water management plan components outlined in section 6.3.6.2 of this Order, including documentation demonstrating completion of tasks necessary to inform Phase II Plan components and completed components.

10. REPORTING REQUIREMENTS

10.1. **General Monitoring and Reporting Requirements**

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

10.2. **Self-Monitoring Reports (SMRs)**

10.2.1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) 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.

10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit 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.

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

Table E-12. Reporting Schedule

SMR Name	Permit Section for Monitoring and Sampling Data Included in Report	SMR Submittal Frequency	SMR Due Date
NPDES Monitoring Report - Monthly	MRP Sections 3 (Influent) and 4 (Effluent)	Monthly	First day of second calendar month following period of

SMR Name	Permit Section for Monitoring and Sampling Data Included in Report	SMR Submittal Frequency	SMR Due Date
			sampling (first report due October 1, 2022
NPDES Monitoring Report - Annually	MRP Sections 4 (Effluent), 5 (WET),	Annually	April 1st, the year following sampling
NPDES Monitoring Report – Once per Permit Term	MRP Section 8 (Receiving Water)	Once per permit term	180 days prior to permit expiration date
Recycled Water Monitoring Report	MRP Section 7.1 (Recycled Water)	Annually	April 1st, the year following sampling
Recycled Water Volumetric Monitoring	MRP Section 7.2 (Volumetric Reporting of Wastewater and Recycled Water)	Annually	April 30th, the year following sampling Note: Submitted using GeoTracker system, not CIWQS
Biosolids Monitoring Report	MRP Section 9.1 (Biosolids Monitoring)	Annually	February 19th, for the previous calendar year via https://cdx.epa.gov/
Facility Summary Report	Attachment D, Standard Provision, 8.4.8	Annually	April 1st following calendar year
Recycled Water Management Plan Progress Report	MRP Section 9.3 (Recycled Water Management Planning Progress Report)	Annually	April 1st starting the year after the submittal of the Recycled Water Management Plan – Phase I
Ocean Outfall and Diffuser Inspection Technical Report	MRP Section 9.2 (Ocean Outfall and Diffuser Inspection)	Once Every Year	April 1st following calendar year (first report due April 1st, 2024

SMR Name	Permit Section for Monitoring and Sampling Data Included in Report	SMR Submittal Frequency	SMR Due Date
Recycled Water Management Plan – Phase I	Order Section 6.3.6.1	Once	April 1st following calendar year (first report due April 1st, 2024
Recycled Water Management Plan – Phase II	Order Section 6.3.6.2	Once	February 5, 2027
Updated initial investigation TRE Workplan	Order Section 6.3.2.1	Once per Permit Term	Within 90 days of the permit effective date
Incident TRE/TIE Workplan	Order Section 6.3.2.1	As directed	When directed by Executive Officer
Updated Pollutant Minimization Plan	Order Section 6.3.3.1	Once per Permit Term	When directed by Executive Officer
Climate Change Response Hazards and Vulnerabilities Plan	Order Section 6.3.7.2	Once	February 5, 2027
ROWD Application	Permit renewal application	Once per permit term	February 5, 2027

10.2.4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable reporting level (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:

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

10.2.4.2. Sample results less than the RL, 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.

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

10.2.4.4. 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.

10.2.5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Central Coast Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

10.2.6. **Multiple Sample Data.** When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

10.2.6.1. 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.

10.2.6.2. 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.

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

10.2.7.1. 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.

10.2.7.2. 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.

10.3. **Discharge Monitoring Reports (DMRs)**

10.3.1. 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>.

10.4. **Other Reports**

10.4.1. With the Report of Waste Discharge submitted for reissuance of this Order, the Discharger shall submit a Climate Change Response Hazards and Vulnerabilities Plan.

10.4.2. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, and PMP, required by Special Provisions – section 6.3 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

Table of Tables

ATTACHMENT F – FACT SHEET

As described in section 2.2 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.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	3 400322963
Discharger	City of Santa Cruz
Name of Facility	City of Cruz Wastewater Treatment Facility
Facility Address	110 California Street Santa Cruz, CA 95060 Santa Cruz County
Facility Contact, Title and Phone	Anne Hogan, Wastewater System Manager, (831) 420-5425
Authorized Person to Sign and Submit Reports	Same as Facility Contact
Mailing Address	110 California Street, Santa Cruz, CA 95060
Billing Address	Same as Mailing Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Yes
Facility Permitted Flow	17 MGD (average dry weather flow)

Facility Design Flow	17 MGD (average dry weather flow) 81 MGD (peak wet weather flow)
Watershed	Big Basin
Receiving Water	Pacific Ocean (Monterey Bay National Marine Sanctuary)
Receiving Water Type	Ocean water

1.1. The City of Santa Cruz (hereinafter, Discharger) is the owner and operator of a wastewater treatment plant (Facility) that treats domestic, commercial, and industrial wastewaters collected from the City of Santa Cruz and Santa Cruz County Sanitation District. The City of Scotts Valley adds its treated wastewater to the Discharger's effluent for combined disposal. The plant also treats dry weather flows from Neary Lagoon, septage from unsewered areas, and grease trap pumping.

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.

1.2. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R3-2017-0030 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048194, adopted on December 7, 2017, which expired on January 25, 2023. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

1.3. When applicable, state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.

1.4. The Discharger filed a report of waste discharge and submitted an application for issuance of its waste discharge requirements (WDRs) and NPDES permit on July 27, 2022.

1.5. Section 122.46 of title 40 of the Code of Federal Regulations (40 C.F.R.) limits the duration of NPDES permits to a fixed term not to exceed five years. 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.

2. FACILITY DESCRIPTION

The City of Santa Cruz (City) owns and operates a wastewater collection, treatment, and disposal system that provides sewerage service for the City of Santa Cruz and areas of Santa Cruz County serviced by Santa Cruz County Sanitation District. The

City of Santa Cruz has been treating sewage at the Facility near Neary Lagoon and disposing of the effluent in the ocean since 1928. Treatment capacity has been expanded several times to accommodate the growth of the city and the addition of flows from Santa Cruz County Sanitation District. The City of Scotts Valley adds its treated wastewater to the Discharger's effluent for combined disposal. The collection systems of the City and County of Santa Cruz comprise 185 miles of gravity sanitary sewer lines, 4.2 miles of forced main, and 54 pump stations, all of which discharge untreated municipal wastewater to the treatment plant. The plant also treats dry weather flows from Neary Lagoon, septage from unsewered areas, and grease trap pumping. The Facility's design, average dry weather treatment capacity is 17 MGD, with a design peak wet weather treatment capacity of 81 MGD.

2.1. **Description of Wastewater and Biosolids Treatment and Controls**

Treatment at the Facility is currently accomplished by screening, aerated grit removal, primary sedimentation, biological tower trickling filters, solids contact stabilization, and secondary clarification, and disinfection with ultraviolet light. During storm events and wet weather flows in excess of UV disinfection capacity of 40 MGD, the plant sends excess primary effluent to mix with UV disinfected secondary effluent and ensures that the permit limits are met before discharge. Biosolids are processed by anaerobic digestion, then centrifuge dewatering. Stabilized solids are transported to Merced County and applied to land. Methane gas produced by anaerobic digestion is used to generate power and heat the digesters at the treatment facility. Treated wastewater is discharged through a 12,250-foot outfall/diffuser system to Monterey Bay National Marine Sanctuary or for recycling as described below.

2.2 **Pure Water Soquel**

Additional discharge through the Facility's ocean outfall will come from Soquel Creek Water District's groundwater replenishment and seawater intrusion prevention project, known as Pure Water Soquel (PWS Project), which includes an advanced water purification facility (AWPF) located at the corner of Chanticleer Avenue and Soquel Avenue (Chanticleer site). The PWS Project involves conveying a portion of the Facility's disinfected secondary effluent to the AWPF. After treatment at the AWPF, the water will meet all requirements of a groundwater replenishment reuse project per California Code of Regulations title 22 and will be recharged into the Santa Cruz Mid-County Groundwater Basin. The Central Coast Water Board will regulate the PWS Project under a separate WDRs order. Non-potable reuse (NPR) water facilities will also be constructed at the Facility to provide the City with disinfected tertiary non-potable recycled water. This portion of the work is known as the Santa Cruz NPR Project, which is being constructed as part of Soquel Creek Water District's overall program efforts. The production of this recycled water is regulated by this order.

AWPF treatment processes at the Chanticleer site will begin in 2024 and consist of ozone pre-treatment, membrane filtration (MF), reverse osmosis (RO), and an ultraviolet (UV) light advanced oxidation process (AOP). When the PWS Project is implemented, an average of 2.77 MGD will be diverted to the AWPF, which will decrease the secondary effluent flow discharged to the ocean by the same amount. The AWPF will produce three waste residual streams that will be conveyed to the WWTF for discharge through the City's existing ocean outfall. These wastes include: (1) reverse osmosis concentrate (ROC), (2) backwash from the MF, and (3) MF backwash. The blended waste residuals stream is referred to as the ROC Blend. This permit allows the allow the discharge of ROC Blend from the AWPF along with disinfected secondary effluent. At no time will the discharge at the ocean outfall exceed the 81 MGD authorized by this Order.

The City developed projections of effluent water quality of the ROC Blend using concentrations of conventional pollutants for the disinfected secondary effluent measured from January 2017 through July 2022. Projected water quality of ROC Blend commingled with disinfected secondary effluent was also provided. To estimate worst-case, in-pipe concentrations of Ocean Plan pollutants, the City modeled discharge scenarios with low secondary effluent flows combined with the maximum ROC Blend flow. The approach and assumptions used to develop these estimated concentrations is described in Attachment A of the Report of Waste Discharge and were used in developing dilution ratios discussed in section 2.3.1 of this Fact Sheet.

2.2.1 Startup and Commissioning

Startup and commissioning of the new AWPF is anticipated to begin in early 2024. Each treatment process will be commissioned over several months following the order of process flow—from chlorine addition at the source water pump station to ozone, membrane filtration, reverse osmosis (RO), ultraviolet light advanced oxidation process (UV/AOP), post treatment stabilization, and finally through the product water pump station. While the system is being commissioned, all treated water (e.g., MF filtrate) and waste residuals (e.g., MF backwash waste) will be combined in the ROC wet well and then will flow to the Facility for discharge through the City's existing outfall. The start-up, commissioning and testing flows are expected to be less than 2.77 MGD.

Chemical treatment during commissioning (e.g., chloramine disinfection, ozone, and UVAOP) will improve the quality of the return flows compared to the Santa Cruz WWTF secondary effluent currently being discharged. Physical treatment (e.g., MF and RO) is not anticipated to change water quality because the waste residuals from each process will be recombined prior to discharge.

Overall, the water quality being discharged during commissioning is anticipated to be in compliance with California Ocean Plan requirements, with water quality equal to or better than the anticipated quality during normal AWPF operation. Discharges associated with startup and commissioning activities of the AWPF to the Santa Cruz WWTF for discharge through the City's existing outfall are

authorized by this permit and must meet effluent and receiving water limits found in sections 4 and 5 of this permit.

2.2.2 Non-Potable Reuse

About 0.3 MGD of secondary effluent will be diverted to the new NPR Project at the Facility. The NPR Project consists of cloth disk filtration, a break tank, UV disinfection, and chemical storage and feed facilities. The treatment provided will meet all requirements of disinfected tertiary recycled water per the California Code of Regulations title 22. Backwash waste from the cloth disk filtration system is returned to the headworks of the Facility. Upon startup of the NPR Project, non-potable product water will be used for onsite purposes such as tank cleaning, chemical dilution, and providing water for on-site pump seals. In the future, the City may distribute the non-potable recycled water for external uses such as nonagricultural irrigation, truck fill station, and dust suppression.

2.3. **Discharge Points and Receiving Waters**

Discharge of secondary treated wastewater currently occurs approximately one mile from the shoreline in Monterey Bay National Marine Sanctuary at a depth of approximately 100 feet. The diffuser section of the outfall is 2,088 feet in length with 106 open ports. The ports have the following diameters, onshore to offshore: 35 at 2 inches, 39 at 2.5 inches, 30 at 7 inches and 2 at 4 inches.)

2.3.1 Dilution Factors

Under high secondary effluent flow conditions, the outfall and diffuser structure provides a minimum initial dilution of 139 to1 (parts seawater:parts effluent), a figure that has been used to determine the need for water quality-based effluent limitations for the facility and to calculate those limitations if required.

The City conducted a mixing zone analysis to characterize the minimum probable initial dilution when the commingled disinfected secondary effluent and ROC Blend are discharged through the City's existing ocean outfall. Flow Science modeled various secondary effluent flows discharge scenarios as part of the analysis, including peak wet weather flows and daily average flows and considering different ocean conditions that occur during each month of the year. Peak wet weather flow scenarios were evaluated for November through March, and average dry weather flows were evaluated for April through October. The AWPF is likely to have more consistent operating flows year-round and so the maximum ROC Blend flows were evaluated for all months of the year. Considering these discharge flow scenarios, the lowest minimum initial dilution (Dm) model result of 150:1 was conservatively selected for the NPDES permit. The approach and assumptions used to estimate the Dm are described in Attachment C to the ROWD.

Operating Scenario	Modeled Dilution
Secondary Effluent Only	139 to 1
Secondary Effluent and ROC	150 to 1

2.4. **Summary of Existing Requirements and SMR Data**

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data that violated the terms of the previous Order are summarized in Table F-2 below.

Table F-2. Summary of Effluent Violations

Violation Date	Limitation	Unit	Effluent Limit	Reported Value
11/7/2018	Settleable Solids Daily Maximum	mL/L	3.0	3.2
11/30/2018	Total Organic Carbon (TOC) Monthly Average	mg/L	17.0	17.3
2/28/2019	Total Organic Carbon (TOC) Percent Removal Monthly Average	%	85	82.2
12/10/2019	Chlorine, Total Residual Daily Maximum	mg/L	1.1	1.85
12/14/2019	Chlorine, Total Residual Daily Maximum	mg/L	1.1	1.42
12/16/2019	Chlorine, Total Residual Daily Maximum	mg/L	1.1	1.24
12/31/2019	Total Organic Carbon (TOC) Percent Removal Monthly Average	%	85	82.5
8/22/2020	Total Organic Carbon (TOC) Weekly Average	mg/L	23	33.9
8/31/2020	Total Organic Carbon (TOC) Monthly Average	mg/L	20	24.1
9/30/2020	Total Organic Carbon (TOC) Monthly Average	mg/L	20	20.5
9/30/2021	Total Organic Carbon (TOC) Monthly Average	mg/L	20	21.63
10/8/2021	Total Organic Carbon (TOC) Weekly Average	mg/L	23	25.6
10/31/2021	Total Organic Carbon (TOC) Monthly Average	mg/L	20	20.17
3/31/2023	Total Organic Carbon (TOC) Percent Removal Monthly Average	%	85	76

2.5. **Compliance Summary**

The 12/31/19 TOC exceedance was determined to be subject to a minimum mandatory penalty, and the Discharger paid a $3,000 penalty through Expedited Payment Letter No. R3-2021-0025.

2.6. **Planned Changes**

As discussed in section 2.2 of this Fact Sheet, Soquel Creek Water District is currently constructing further recycling capacity and beginning in early 2024 will discharge RO concentrate that comes from the Pure Water Soquel Project through the Discharger's ocean outfall.
https://www.soquelcreekwater.org/184/Pure-Water-Soquel

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. **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. Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 1, subject to the WDRs in this Order.

3.2. **California Environmental Quality Act (CEQA)**

Under California Water Code section 13389, this action to adopt an NPDES permit for the discharge of waste to surface waters is exempt from the CEQA provisions in Public Resources Code, Division 13, Chapter 3.

This action to adopt new recycling requirements for the Facility to produce disinfected tertiary recycled wastewater is not exempt from the provisions of CEQA. The Discharger certified a final environmental impact report (EIR) for the Facility on June 30, 2018, pursuant to the provisions of CEQA. The Central Coast Water Board, as a responsible agency under CEQA, has reviewed and considered the EIR and makes its own conclusions on whether and how to approve the recycling requirements for the Facility. The EIR identified potentially significant environmental effects from construction-stage erosion and sedimentation. To mitigate these impacts, the Discharger enrolled in the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities and developed a site-specific Stormwater Pollution Prevention Plan. Pursuant to Public Resources Code section 21081 and 14 California Code of Regulations sections 15096 and 15091, the Central Coast Water Board hereby finds that these actions have substantially lessened the significant environmental impacts that are within its jurisdiction, as identified in the EIR.

3.3. **State and Federal Laws, Regulations, Policies, and Plans**

3.3.1. **Water Quality Control Plan.** The Central Coast Water Board adopted the *Water Quality Control Plan for the Central Coastal Basin* (Basin Plan), the most recent version released in June 2019, that designates beneficial uses, establishes water

quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. To address ocean waters, the Basin Plan incorporates by reference the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan). The Ocean Plan is discussed in further detail in section 3.3.3 of this Fact Sheet.

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

Table F-3. Basin Plan Beneficial Uses

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

Requirements of this Order implement the Basin Plan.

3.3.2. **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 the following temperature objective for existing discharges to enclosed bays and coastal waters of California which is applicable to this Discharger.

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

The Ocean Plan defines elevated temperature wastes as:

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

Requirements of this Order implement the Thermal Plan.

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

Discharge Point	Receiving Water	Beneficial Use(s)
001	Pacific Ocean (Monterey Bay National Marine Sanctuary)	Industrial water supply; water contact and noncontact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; rare and endangered species; marine habitat; fish spawning and shellfish harvesting

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

3.3.4. **Human Right to Water.** In compliance with California Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use. Provisions of this Order also allows the Discharger and Soquel Creek Water District to recycle wastewater, diversifying water supply options in the area.

3.3.5. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, *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 by 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 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

The Pacific Ocean at Discharge Point 001 is a high-quality water with regard to some pollutants. The baseline is the best water quality existing since 1968, the year in which State Water Board Resolution No. 68-16 was promulgated.

The final effluent limitations from the previous order have been retained in this Order, with the exception of dichlorobromomethane, PAHs, DDT, 2,4,6-trichlorophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, di-n-butyl phthalate, and total cyanide. This Order also allows less stringent concentration-based effluent limitations under certain blends of RO concentrate and secondary effluent. As described in section 2.2.1 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 of 139 in Order No. R3-2017-0030 is retained in this Order for the discharge of secondary treated effluent. Despite the higher Dm of 150 used in the cases when the AWPF is running and RO concentrate is discharged with secondary treated effluent, mass limitations from Order R3-2017-0030 remain the same under both dilution modeling scenarios. The Discharger's plans to increase the beneficial reuse of water recycling will decrease the volume of treated effluent discharged to the ocean. As such, this Order does not allow an increase in mass discharged.

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 No. 68-16.

Pursuant to State Water Board Resolution No. 68-16, this Order results in the best practicable treatment or control of the discharge necessary to ensure the highest water quality consistent with maximum benefit to the people of the state will be maintained. Any decrease in the amount of waste discharged at Discharge Point No. 001 as a result of reuse will correspondingly decrease the degradation to high quality ocean waters. Recycling wastewater[5], as opposed to disposing of this valuable resource to ocean waters, is critical to providing the highest water quality consistent with the maximum benefit to and to promote the health and welfare of the people of the state.

3.3.6. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

3.3.7. **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

[5] Recycled water is a water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and therefore considered a valuable resource (California Water Code section 13050(n)).

protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

3.3.8. **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.

3.3.9. **California Water Code section 13267 Requirements for Recycled Water.** California Water Code section 13267 authorizes the recycled water management plan requirements in section 6.3.6 of this Order. California Water Code section 13267(a) states that "[a] regional board, in establishing or reviewing any . . . waste discharge requirements . . . may investigate the quality of any waters of the state within its region." Subsection (b)(1) states in relevant part, "In conducting an investigation specified in subdivision (a), the regional board may require that any person . . . who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports."

The Discharger owns the Facility subject to this Order and is proposing to discharge waste to the Pacific Ocean. Although the discharge is permissible, it may result in limited degradation, particularly within the zone of initial dilution. Pursuant to California Water Code section 13267 and based on the Discharger's representation that it ultimately seeks to maximize reuse of the treated effluent produced by the Facility, this Order requires the Discharger to prepare and submit recycled water management plans evaluating the options for beneficial reuse of treated effluent from the Facility, feasibility of those options, and next steps for pursuing identified beneficial reuses. The Central Coast Water Board anticipates that reductions in ocean discharges, through implementing beneficial reuse projects, will reduce the water quality impacts of waste discharge from the Facility within the zone of initial dilution in the Pacific Ocean. The preparation of such plans will also further the development of alternative water supplies to increase water supply resiliency.

The burden, including cost, of preparing the recycled water management plans bears a reasonable relationship to the need for the recycled water management plans and benefits to be obtained from them. The costs for preparing such plans that assess options and feasibility of implementing recycling projects varies greatly depending on plan complexity. Central Coast municipalities with similar service areas to the Discharger have prepared recycled water management plans assessing beneficial reuse opportunities and recycled water project feasibility, ranging in plan preparation cost of $28,000 to $330,000. The Central Coast Water Board anticipates the Discharger's Recycled Water Management Plan – Phase II will be of moderate complexity relative to the plans assessed to inform this cost

range. Additionally, the plan scope influences opportunities for funding support from the State Water Board and other entities. Additional discussion of the rationale for the recycled water management plans is provided in section 6.2.6 of this Fact Sheet.

3.4. Impaired Water Bodies on the CWA section 303(d) List

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

The Pacific Ocean, from Point Ano Nuevo to Soquel Point, is identified as impaired for dieldrin on the state's 2020-2022 303(d) list of impaired water bodies, which was approved by U.S. EPA on May 11, 2022. A TMDL for dieldrin applicable to the receiving water body has not yet been developed. As described in Section IV.C of the Fact Sheet, the reasonable potential analysis for dieldrin was inconclusive, and, consequently, this Order retains effluent limitations applicable to the parameter contained in the existing Order.

3.5. Other Plans, Polices and Regulations

3.5.1. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2022-0103-DWQ).** State Water Board Order No. 2022-0103-DWQ, adopted on December 6, 2022, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of Water Quality Order 2022-0103-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. The Discharger is enrolled in Water Quality Order 2022-0103-DWQ and must comply with its requirements and any requirements in reissuances to Water Quality Order 2022-0103-DWQ.

3.5.2. **State Water Board Recycled Water Policy (State Board Order No. WQ 2019-0037-EXEC).** The Recycled Water Policy was adopted by the State Water Board on December 11, 2018, and became effective on April 8, 2019. The purpose of the Recycled Water Policy is to encourage the safe use of recycled water in a manner that is protective of public health and the environment. State Board Order WQ 2019-0037-EXEC implements the Recycled Water Policy by amending the monitoring and reporting programs for dischargers subject to NPDES permits, WDRs, master recycling permits, and water reclamation requirements to require annual reporting of volumetric data on wastewater and, if applicable, recycled water use by volume and category of reuse. Under State Board Order WQ-2019-0037-EXEC, the regional boards are expected to reissue or otherwise amend

MRPs to incorporate the requirements of State Board Order WQ 2019-0037-EXEC.
The State Water Board issued a Water Code Section 13267 and 13383 Order, Order WQ 2019-0037-EXEC, on July 24, 2019 (amended on January 14, 2020) to amend MRPs for NPDES permits, WDRs, Water Reclamation Requirements (WRRs), Master Recycling, and General WDRs. Annual reports are due by April 30 of each year, and the report must be submitted to GeoTracker. This Order implements the Recycled Water Policy by incorporating the volumetric monitoring reporting requirements in accordance with Section 3 of the Recycled Water Policy (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/12111 8_7_final_amendment_oal.pdf). The State Water Board's Order WQ 2019-0037-EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

3.5.3. **Statewide General Water Reclamation Requirements for Recycled Water Use (State Water Board Order No. WQ 2016-0068-DDW).** State Water Board Order No. WQ 2016-0068-DDW, adopted on June 7, 2016, is applicable to recycled water projects where recycled water is used or transported for non-potable uses. The distribution and off-site reuse of recycled water produced by the Facility is subject to State Water Board Order No. WQ 2016-0068-DDW, or other applicable permit, dependent on final use.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards, and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

4.1. Discharge Prohibitions

4.1.1. **Discharge Prohibition 3.1. (Discharge to the Pacific Ocean at a location other than as described in this Order is prohibited).** This Order authorizes a single, specific point of discharge to the Pacific Ocean. This prohibition is based on 40 C.F.R. section 122.21(a), duty to apply, and California Water Code section 13260, which requires filing a Report of Waste Discharge (ROWD) before discharges can occur.

4.1.2. **Discharge Prohibition 3.2. (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.

4.1.3. **Discharge Prohibition 3.3. (The dry weather average monthly rate of discharge from the wastewater treatment facility shall not exceed 17.0 MGD.)** This prohibition reflects the design treatment capacity of the Facility that the Discharger provided in its application for an NPDES permit and ensures that influent flow will not exceed the Facility's hydraulic and treatment capacity. This prohibition for the monthly average dry weather effluent flow limitation is contained in Order R3-2017-0030.

4.1.4. **Discharge Prohibition 3.4. (peak wet weather flow shall not exceed 81.0 MGD.)** This prohibition reflects the current design treatment capacity of the Facility and ensures that the influent flow will not exceed the Facility's hydraulic and treatment capacity.

4.1.5. **Discharge Prohibition 3.5. (The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste to the Ocean is prohibited).** This prohibition is based on a discharge prohibition established in chapter III.I.1 of the Ocean Plan.

4.1.6. **Discharge Prohibition 3.6.** (**Pipeline discharge of sludge to the Ocean is prohibited by federal law. The discharge of municipal or industrial waste sludge directly to the Ocean, or into a waste stream that discharges to the Ocean, is prohibited by the California Ocean Plan (Ocean Plan). The discharge of sludge digester supernatant directly to the Ocean or to a waste stream that discharges to the Ocean without further treatment is prohibited).** This prohibition is based on a discharge prohibition established in chapter III.I.3 of the Ocean Plan.

4.1.7. **Discharge Prohibition 3.7. (The overflow, bypass, or overspray of wastewater from the Discharger's facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision 1.7. (Bypass), is prohibited).** The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 C.F.R. section 122.41(m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and, therefore, is explicitly prohibited by this Order.

4.1.8. **Discharge Prohibition 3.8. (Materials and substances that are prohibited).** This prohibition is based on the requirements of chapter III.A.2.b of the Ocean Plan.

4.2. **Technology-Based Effluent Limitations (TBELs)**

4.2.1. **Scope and Authority**

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum and any more stringent

effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on secondary treatment standards at 40 C.F.R. part 133.

Regulations promulgated in 40 C.F.R. section 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on secondary treatment standards or equivalent to secondary treatment standards.

The federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in CWA section 304(d)(1)]. Section 301(b)(1)(B) of the CWA requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the U.S. EPA Administrator.

4.2.2. **Applicable Technology-Based Effluent Limitations**

Based on this statutory requirement, U.S. EPA developed secondary treatment regulations, which are specified in 40 C.F.R. part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

Table F-5. Secondary Treatment Requirements

Parameter	Units	30-Day Average	7-Day Average
BOD_5[1]	Milligram per liter (mg/L)	30	45
Carbonaceous BOD_5 ($CBOD_5$)[2]	mg/L	25	40
TSS[1]	mg/L	30	45
pH	standard units	6.0[3]	9.0[4]

[1] The 30-day average percent removal shall not be less than 85 percent.
[2] At the option of the permitting authority, effluent limitations for $CBOD_5$ may be substituted for those limitations specified for BOD_5.
[3] Instantaneous minimum value.
[4] Instantaneous maximum value.

In addition, Table 4 of the 2019 Ocean Plan establishes the following technology-based requirements applicable to POTWs and industrial discharges for which effluent limitations guidelines have not been established.

Table F-6. Ocean Plan Table 4 Requirements

Parameter	Units	30-Day Average	7-Day Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
TSS	mg/L	60[1]		

Parameter	Units	30-Day Average	7-Day Average	Instantaneous Maximum
Settleable Solids	Milliliter per liter (mL/L)	1.0	1.5	3.0
Turbidity	Nephelometric turbidity unit (NTU)	75	100	225
pH	standard units	6.0[2]	9.0[3]	

[1] Table 4 of the Ocean Plan requires that dischargers, as a monthly average, remove 75 percent of suspended solids from the influent stream before discharging wastewater to the Pacific Ocean, except that the effluent limitation to be met shall not be less than 60 mg/L.

[2] Instantaneous minimum value.

[3] Instantaneous maximum value.

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

4.2.2.1. **BOD_5 and TSS.** Federal regulations at 40 C.F.R. part 133 establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD_5 and TSS. Effluent limitations for BOD_5 and TSS have thus been established in this Order based on these standards.

Additionally, 40 C.F.R. section 133.012, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent. This Order contains a limitation requiring an average of 85 percent removal of BOD_5 and TSS over each calendar month.

4.2.2.2. **Total Organic Carbon (TOC).** 40 CFR section 133.104(b) allows for the substitution of BOD_5 technology-based effluent limitations in instances when a long-term BOD_5 to TOC trend or correlation has been demonstrated. Under Order R3-2017-0030, the Central Coast Water Board evaluated the relationship between BOD_5 and TOC using 60 paired samples reported from November 2005 through November 2006. The relationship between the parameters was described by the following equation ($R^2 = 0.9532$):

TOC (mg/L) = 0.4141 (BOD_5; mg/L) + 4.3937

This relationship results in a translation of the BOD_5 secondary treatment standards to equivalent TOC limitations of 17 mg/L (average monthly) and 23 mg/L (average weekly).

As detailed in a June 19, 2020 letter from the City titled, "DMR Change Request for TOC monthly average effluent limit in NPDES CA0048194," a review of the data from both the initial study in 2005 and a follow-up study in 2015 indicates that the inclusion of data derived solely and specifically for unit process analyses and control incorrectly impacted the relationship between the parameters. A thorough review of the influent and effluent TOC and BOD analyses resulted in a TBEL for BOD value of 25 mg/L is equivalent to a TOC value of 20 mg/L, based on 273 samples in 2004-2005, and 21 mg/L based on 48 samples in 2015.

Therefore, the Average Monthly Effluent Limit for TOC has been changed to 20 mg/L in this Order.

4.2.2.3. **Oil and Grease.** Table 4 of the Ocean Plan establishes average weekly, average monthly, and maximum technology-based requirements for oil and grease. Effluent limitations for oil and grease have been established in this Order based on these requirements.

4.2.2.4. **Settleable Solids.** Table 4 of the Ocean Plan establishes average weekly, average monthly, and maximum technology-based requirements for settleable solids. Effluent limitations for settleable solids have been established in this Order based on these requirements.

4.2.2.5. **Turbidity.** Table 4 of the Ocean Plan establishes average weekly, average monthly, and maximum technology-based requirements for turbidity. Effluent limitations for turbidity have been established in this Order based on these requirements.

4.2.2.6. **pH.** Federal regulations at 40 C.F.R. part 133 establish TBELs for pH. The secondary treatment standards require the pH of the effluent to be no lower than 6.0 and no greater than 9.0 standard units. This pH range is also consistent with Table 4 of the Ocean Plan. Effluent limitations for pH have been established in this Order based on these requirements.

The following table summarizes TBELs established by this Order at Discharge Point 001.

Table F-7. Technology-Based Effluent Limitations – Discharge Point 001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
TOC[1]	mg/L	20	23	-		
TOC	Pounds per day (lbs/day)[2]	2836	3261	-		
TSS[1]	mg/L	30	45	-		

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
TSS	lbs/day[2]	4253	6380	-		
pH	standard units				6.0	9.0
Oil and Grease	mg/L	25	40	75		
Oil and Grease	lbs/day[2]	3,545	5,671	10,636		
Settleable Solids	mL/L	1.0	1.5	3.0		
Turbidity	NTU	75	100	225		

[1] The average monthly percent removal of TOC, BOD_5 and TSS, as measured at Monitoring Location EFF-001A, shall not be less than 85 percent.

[2] Mass loading limits were calculated using the following formulas: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

4.3. **Water Quality-Based Effluent Limitations (WQBELs)**

4.3.1. **Scope and Authority**

Section 301(b) of the CWA 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 beneficial 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.

4.3.2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

Beneficial uses for ocean waters of the Central Coast Region are established by the Basin Plan and Ocean Plan and are described in sections 3.3.1 and 3.3.3 of this Fact Sheet.

Water quality criteria applicable to ocean waters of the region are established by the Ocean Plan, which includes water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The water quality objectives from the Ocean Plan are incorporated as receiving water limitations in this Order. In addition, Table 3 of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health.

4.3.3. **Determining the Need for WQBELs**

Procedures for performing a reasonable potential analysis (RPA) for ocean dischargers are described in section III.C and Appendix VI of the California Ocean Plan. The procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long-term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set and compares the 95th percentile concentration at 95 percent confidence of each Table 3 (Ocean Plan) 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 Ocean Plan Appendix III is required.

Endpoint 2 - There is no “reasonable potential.” An effluent limitation is not required for the pollutant. Ocean Plan Appendix III effluent monitoring is not required for the pollutant. However, the Regional Water Board 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 Ocean Plan 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 the monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to an excursion above a Table 3 (Ocean Plan) water quality objective. This Order contains such a reopener clause in Section 6.3.1.2.

The State Water Board has developed a reasonable potential calculator (RPcalc 2.2). RPcalc 2.2 was used in the development of this Order and considers several pathways in the determination of reasonable potential.

4.3.3.1. **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 facility or discharge type; solids loading, lack of dilution; history of compliance problems; potential toxic effects; fish tissue data; CWA section 303(d) status of the receiving water; the presence of threatened or endangered species or their critical habitat; or other information.

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

4.3.3.3. **Third Path.** If the effluent data contain 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.

4.3.3.4. **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.

4.3.3.4.1. If the number of censored values (those expressed as a “less than” value) account for less than 80 percent of the total number of effluent values, calculate the 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.

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

4.3.3.5. **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 number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the water quality objective. If the sample number is 15 or less, the RPA is inconclusive,

monitoring is required, and any existing effluent limitations in the expiring permit are retained.

The implementation provisions for Table 3 in Section III.C of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates shall be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure.

This Order establishes dilution credits for the following two operating scenarios at the Facility:

Operating Scenario	Established Dilution Credit
Secondary treated effluent only	139
Secondary treated effluent and ROC	150

The RPA for the operating scenario corresponding to discharge of only secondary treated effluent via 001 (i.e., the AWPF is not in use) uses effluent monitoring data from January 2017 until June 2023. Order No. R3-2017-0030 established the minimum initial dilution factor (Dm) for the discharge to be 139 to 1 (seawater to effluent). This Dm of 139:1 is retained in this Order for this operating scenario and applied to the WQBELs established herein accordingly.

To determine minimal initial dilution factor for the operating scenario of corresponding to discharge when commingled disinfected secondary effluent and ROC Blend are discharged through the City's existing ocean outfall (i.e., the AWPF is in operation), the City conducted a mixing zone analysis to characterize the minimum probable initial dilution. Various secondary effluent flows were considered as part of the analysis, including peak wet weather flows and daily average flows. Considering these discharge flow scenarios, the lowest minimum initial dilution (Dm) model result of 150:1 was selected for the NPDES 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 heptachlor epoxide, aldrin and TCDD-equivalents. RPA results that did not result in Endpoint 3 are bolded in the following.

Table F-8. RPA Results for Discharges to Pacific Ocean – Secondary-Treated Effluent Only

Parameter	Most Stringent WQO (µg/L)	N [1]	Max Effluent Conc (µg/L) [2][3]	RPA Conclusion [4]
Objectives for Protection of Marine Aquatic Life				
Arsenic, Total Recoverable	8	34	3.01	**Endpoint 2 - Effluent limit not necessary**
Cadmium, Total Recoverable	1	30	0.03	**Endpoint 2 - Effluent limit not necessary**
Chromium (VI), Total	2	30	2.6	**Endpoint 2 - Effluent limit not necessary**
Copper, Total Recoverable	3	34	8.2	**Endpoint 2 - Effluent limit not necessary**
Lead, Total Recoverable	2	85	0.64	**Endpoint 2 - Effluent limit not necessary**
Mercury, Total Recoverable	0.04	29	0.29	**Endpoint 2 - Effluent limit not necessary**
Nickel, Total Recoverable	5	34	6.3	**Endpoint 2 - Effluent limit not necessary**
Selenium, Total Recoverable	15	33	0.98	**Endpoint 2 - Effluent limit not necessary**
Silver, Total Recoverable	0.7	26	<5	**Endpoint 2 - Effluent limit not necessary**
Zinc, Total Recoverable	20	21	65	**Endpoint 2 - Effluent limit not necessary**
Cyanide, Total	1	14	18	**Endpoint 2 - Effluent limit not necessary**
Total Chlorine, Residual	2	73	0.96	**Endpoint 1 - Effluent limit is necessary**
Ammonia (as N)	600	10	48.4	**Endpoint 2 - Effluent limit not necessary**
Acute Toxicity	0.3	24	8	Endpoint 3 – Detection after mixing
Chronic Toxicity	1	24	1	**Endpoint 2 - Effluent limit not necessary**
Non-Chlorinated Phenolic Compounds	30	27	200	**Endpoint 2 - Effluent limit not necessary**
Chlorinated Phenolic Compounds	1	26	0.97	**Endpoint 2 - Effluent limit not necessary**
Endosulfan	0.009	12	<0.039	Endpoint 3 – RPA is inconclusive

Parameter	Most Stringent WQO (µg/L)	N [1]	Max Effluent Conc (µg/L) [2][3]	RPA Conclusion [4]
Endrin	0.002	11	<0.019	Endpoint 3 – RPA is inconclusive
HCH	0.004	13	<0.19	Endpoint 3 – RPA is inconclusive
Radioactivity	NA	NA	NA	NA
Objectives for Protection of Human Health – Non-Carcinogens				
Acrolein	220	13	<20	Endpoint 3 – RPA is inconclusive
Antimony	1,200	13	1.3	**Endpoint 2 - Effluent limit not necessary**
Bis(2-chloroethoxy) Methane	4.4	13	<9.6	Endpoint 3 – RPA is inconclusive
Bis(2-chloroisopropyl) ether	1,200	13	<9.6	Endpoint 3 – RPA is inconclusive
Chlorobenzene	570	13	<1	Endpoint 3 – RPA is inconclusive
Chromium (III)	190,000	13	0.96	**Endpoint 2 – Effluent limit not necessary**
Di-n-butyl Phthalate	3,500	13	0.088	**Endpoint 2 - Effluent limit not necessary**
Dichlorobenzenes	18	13	<9.6	Endpoint 3 – RPA is inconclusive
Diethyl Phthalate	33,000	13	0.04	Endpoint 3 – RPA is inconclusive
Dimethyl Phthalate	820,000	13	<4.8	Endpoint 3 – RPA is inconclusive
4,6-dinitro-2-methylphenol	220	30	<240	**Endpoint 2 - Effluent limit not necessary**
2,4-dinitrophenol	4	30	<99	**Endpoint 2 - Effluent limit not necessary**
Ethylbenzene	4,100	13	<1	Endpoint 3 – RPA is inconclusive
Fluoranthene	15	13	0.017	Endpoint 3 – RPA is inconclusive
Hexachlorocyclopentadiene	58	13	<120	Endpoint 3 – RPA is inconclusive
Nitrobenzene	4.9	13	<15	Endpoint 3 – RPA is inconclusive
Thallium	2	13	<5	Endpoint 3 – RPA is inconclusive

Parameter	Most Stringent WQO (µg/L)	N [1]	Max Effluent Conc (µg/L) [2][3]	RPA Conclusion [4]
Toluene	85,000	13	0.38	Endpoint 3 – RPA is inconclusive
Tributyltin	0.0014	12	<0.06	Endpoint 3 – RPA is inconclusive
1,1,1-trichloroethane	540,000	11	<1	Endpoint 3 – RPA is inconclusive
Objectives for Protection of Human Health – Carcinogens				
Acrylonitrile	0.1	13	<20	Endpoint 3 – RPA is inconclusive
Aldrin	0.000022	13	0.012	**Endpoint 1 – Effluent limitation is necessary**
Benzene	5.9	13	<1	Endpoint 3 – RPA is inconclusive
Benzidine	0.000069	13	<240	Endpoint 3 – RPA is inconclusive
Beryllium	0.033	29	<5	Endpoint 3 – RPA is inconclusive
Bis(2-chloroethyl) Ether	0.045	13	<9.6	Endpoint 3 – RPA is inconclusive
Bis(2-ethlyhexyl) Phthalate	3.5	13	0.04	Endpoint 3 – RPA is inconclusive
Carbon Tetrachloride	0.9	13	<1	Endpoint 3 – RPA is inconclusive
Chlordane	0.000023	13	<0.39	Endpoint 3 – RPA is inconclusive
Chlorodibromomethane	8.6	13	0.16	Endpoint 3 – RPA is inconclusive
Chloroform	130	13	1.1	**Endpoint 2 - Effluent limit not necessary**
DDT	0.00017	13	0.0028	**Endpoint 2 - Effluent limit not necessary**
1,4-dichlorobenzene	18	14	<4.8	Endpoint 3 – RPA is inconclusive
3,3'-dichlorobenzidine	0.0081	13	<4.8	Endpoint 3 – RPA is inconclusive
1,2-dichloroethane	28	13	1	Endpoint 3 – RPA is inconclusive
1,1-dichloroethylene (1,1 - dichloroethene)	0.9	13	<1	Endpoint 3 – RPA is inconclusive
Dichlorobromomethane	6.2	12	0.14	**Endpoint 2 - Effluent limit not necessary**

Parameter	Most Stringent WQO (µg/L)	N [1]	Max Effluent Conc (µg/L) [2][3]	RPA Conclusion [4]
Dichloromethane (Methylene Chloride)	450	13	10	Endpoint 3 – RPA is inconclusive
1,3-dichloropropene	8.9	12	<1	Endpoint 3 – RPA is inconclusive
Dieldrin	0.00004	13	0.0071	Endpoint 3 – RPA is inconclusive
2,4-dinitrotoluene	2.6	13	<9.6	Endpoint 3 – RPA is inconclusive
1,2-diphenylhydrazine	0.16	13	<11	Endpoint 3 – RPA is inconclusive
Halomethanes	130	10	6.1	Endpoint 3 – RPA is inconclusive
Heptachlor	0.00005	13	0.007	Endpoint 3 – RPA is inconclusive
Heptachlor Epoxide	0.00002	13	0.0053	**Endpoint 1 – Effluent limitation is necessary**
Hexachlorobenzene	0.00021	13	<9.6	Endpoint 3 – RPA is inconclusive
Hexachlorobutadiene	14	12	<4.8	Endpoint 3 – RPA is inconclusive
Hexachloroethane	2.5	13	<9.6	Endpoint 3 – RPA is inconclusive
Isophorone	730	13	<49	Endpoint 3 – RPA is inconclusive
N-nitrosodimethylamine	7.3	13	<27	Endpoint 3 – RPA is inconclusive
N-nitrosodi-N-propylamine	0.38	13	<18	Endpoint 3 – RPA is inconclusive
N-nitrosodiphenylamine	2.5	13	<12	Endpoint 3 – RPA is inconclusive
PAHs	0.0088	11	0.01555	**Endpoint 2 - Effluent limit not necessary**
PCBs	0.000019	13	<0.95	Endpoint 3 – RPA is inconclusive
TCDD equivalents	3.90E-09	11	4.81E-01	**Endpoint 1 – Effluent limitation is necessary**
1,1,2,2-tetrachloroethane	2.3	13	<1	Endpoint 3 – RPA is inconclusive
Tetrachloroethylene (Tetrachloroethene)	2	13	0.2	Endpoint 3 – RPA is inconclusive

Parameter	Most Stringent WQO (µg/L)	N [1]	Max Effluent Conc (µg/L) [2][3]	RPA Conclusion [4]
Toxaphene	0.00021	13	<1.2	Endpoint 3 – RPA is inconclusive
Trichloroethylene	27	13	<1	Endpoint 3 – RPA is inconclusive
1,1,2-trichloroethane	9.4	13	<1	Endpoint 3 – RPA is inconclusive
2,4,6-trichlorophenol	0.29	30	0.55	**Endpoint 2 - Effluent limit not necessary**
Vinyl Chloride	36	13	<1	Endpoint 3 – RPA is inconclusive

[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 to not 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.

Table F-9. RPA Results for Discharges to Pacific Ocean – Secondary-Treated Effluent Comingled with ROC

Parameter	Most Stringent WQO (µg/L)	Projected Max. Effluent Conc. (µg/L) [1][2]	RPA Conclusion [3]
Objectives for Protection of Marine Aquatic Life			
Arsenic, Total Recoverable	8	3.01	**Endpoint 2 - Effluent limit not necessary**
Cadmium, Total Recoverable	1	0.03	**Endpoint 2 - Effluent limit not necessary**
Chromium (VI), Total	2	8	**Endpoint 2 - Effluent limit not necessary**

Parameter	Most Stringent WQO (µg/L)	Projected Max. Effluent Conc. (µg/L) [1][2]	RPA Conclusion [3]
Copper, Total Recoverable	3	50	**Endpoint 2 - Effluent limit not necessary**
Lead, Total Recoverable	2	1.4	**Endpoint 2 - Effluent limit not necessary**
Mercury, Total Recoverable	0.04	32.5	**Endpoint 2 - Effluent limit not necessary**
Nickel, Total Recoverable	5	31.5	**Endpoint 2 - Effluent limit not necessary**
Selenium, Total Recoverable	15	7.5	**Endpoint 2 - Effluent limit not necessary**
Silver, Total Recoverable	0.7	9.5	**Endpoint 2 - Effluent limit not necessary**
Zinc, Total Recoverable	20	255	**Endpoint 2 - Effluent limit not necessary**
Cyanide, Total	1	90	**Endpoint 2 - Effluent limit not necessary**
Total Chlorine, Residual	2	2	**Endpoint 1 - Effluent limit is necessary**
Ammonia (as N)	600	252000	**Endpoint 2 - Effluent limit not necessary**
Acute Toxicity	0.3		Endpoint 3 – Detection after mixing
Chronic Toxicity	1		**Endpoint 2 - Effluent limit not necessary**
Non-Chlorinated Phenolic Compounds	30	407	**Endpoint 2 - Effluent limit not necessary**
Chlorinated Phenolic Compounds	1	1.2	**Endpoint 2 - Effluent limit not necessary**
Endosulfan	0.009	2.10E-03	Endpoint 3 – RPA is inconclusive
Endrin	0.002	1.74E-04	Endpoint 3 – RPA is inconclusive
HCH	0.004	1.30E-03	Endpoint 3 – RPA is inconclusive
Radioactivity	NA	NA	NA
Objectives for Protection of Human Health – Non-Carcinogens			
Acrolein	220	100	Endpoint 3 – RPA is inconclusive
Antimony	1,200	6.5	
Bis(2-chloroethoxy) Methane	4.4	48	Endpoint 3 – RPA is inconclusive
Bis(2-chloroisopropyl) ether	1,200	48	Endpoint 3 – RPA is inconclusive
Chlorobenzene	570	5	Endpoint 3 – RPA is inconclusive

Parameter	Most Stringent WQO (µg/L)	Projected Max. Effluent Conc. (µg/L) [1][2]	RPA Conclusion [3]
Chromium (III)	190,000	8	**Endpoint 2 - Effluent limit not necessary**
Di-n-butyl Phthalate	3,500	0.36	**Endpoint 2 - Effluent limit not necessary**
Dichlorobenzenes	18	19.5	Endpoint 3 – RPA is inconclusive
Diethyl Phthalate	33,000	24	Endpoint 3 – RPA is inconclusive
Dimethyl Phthalate	820,000	24	Endpoint 3 – RPA is inconclusive
4,6-dinitro-2-methylphenol	220	1200	**Endpoint 2 - Effluent limit not necessary**
2,4-dinitrophenol	4	495	**Endpoint 2 - Effluent limit not necessary**
Ethylbenzene	4,100	5	Endpoint 3 – RPA is inconclusive
Fluoranthene	15	0.085	Endpoint 3 – RPA is inconclusive
Hexachlorocyclopentadiene	58	240	Endpoint 3 – RPA is inconclusive
Nitrobenzene	4.9	48	Endpoint 3 – RPA is inconclusive
Thallium	2	25	Endpoint 3 – RPA is inconclusive
Toluene	85,000	1.45	Endpoint 3 – RPA is inconclusive
Tributyltin	0.0014	0.3	Endpoint 3 – RPA is inconclusive
1,1,1-trichloroethane	540,000	5	Endpoint 3 – RPA is inconclusive
Objectives for Protection of Human Health – Carcinogens			
Acrylonitrile	0.1	100	Endpoint 3 – RPA is inconclusive
Aldrin	0.000022	0.000026	Endpoint 3 – RPA is inconclusive
Benzene	5.9	5	Endpoint 3 – RPA is inconclusive
Benzidine	0.000069	480	Endpoint 3 – RPA is inconclusive
Beryllium	0.033	25	**Endpoint 2 - Effluent limit not necessary**
Bis(2-chloroethyl) Ether	0.045	0.2	Endpoint 3 – RPA is inconclusive
Bis(2-ethlyhexyl) Phthalate	3.5	65	Endpoint 3 – RPA is inconclusive
Carbon Tetrachloride	0.9	5	Endpoint 3 – RPA is inconclusive
Chlordane	0.000023	0.0056	**Endpoint 2 - Effluent limit not necessary**
Chlorodibromomethane	8.6	0.322	**Endpoint 2 - Effluent limit not necessary**
Chloroform	130	5.5	**Endpoint 2 - Effluent limit not necessary**
DDT	0.00017	0.014	**Endpoint 2 - Effluent limit not necessary**
1,4-dichlorobenzene	18	19.5	Endpoint 3 – RPA is inconclusive
3,3'-dichlorobenzidine	0.0081	240	Endpoint 3 – RPA is inconclusive
1,2-dichloroethane	28	5	Endpoint 3 – RPA is inconclusive

Parameter	Most Stringent WQO (µg/L)	Projected Max. Effluent Conc. (µg/L) [1][2]	RPA Conclusion [3]
1,1-dichloroethylene (1,1 - dichloroethene)	0.9	5	Endpoint 3 – RPA is inconclusive
Dichlorobromomethane	6.2	0.355	**Endpoint 2 - Effluent limit not necessary**
Dichloromethane (Methylene Chloride)	450	10	Endpoint 3 – RPA is inconclusive
1,3-dichloropropene	8.9	2.5	Endpoint 3 – RPA is inconclusive
Dieldrin	0.00004	0.0066	Endpoint 3 – RPA is inconclusive
2,4-dinitrotoluene	2.6	48	Endpoint 3 – RPA is inconclusive
1,2-diphenylhydrazine	0.16	48	Endpoint 3 – RPA is inconclusive
Halomethanes	130	2.7	Endpoint 3 – RPA is inconclusive
Heptachlor	0.00005	0.00084	Endpoint 3 – RPA is inconclusive
Heptachlor Epoxide	0.00002	0.0037	**Endpoint 1 – Effluent limitation is necessary.**
Hexachlorobenzene	0.00021	0.00041	Endpoint 3 – RPA is inconclusive
Hexachlorobutadiene	14	0.000056	Endpoint 3 – RPA is inconclusive
Hexachloroethane	2.5	48	Endpoint 3 – RPA is inconclusive
Isophorone	730	48	Endpoint 3 – RPA is inconclusive
N-nitrosodimethylamine	7.3	48	Endpoint 3 – RPA is inconclusive
N-nitrosodi-N-propylamine	0.38	48	Endpoint 3 – RPA is inconclusive
N-nitrosodiphenylamine	2.5	48	Endpoint 3 – RPA is inconclusive
PAHs	0.0088	0.121	**Endpoint 2 - Effluent limit not necessary**
PCBs	0.000019	0.0037	Endpoint 3 – RPA is inconclusive
TCDD equivalents	3.90E-09	0.0000019	**Endpoint 1 – Effluent limitation is necessary.**
1,1,2,2-tetrachloroethane	2.3	5	Endpoint 3 – RPA is inconclusive
Tetrachloroethylene (Tetrachloroethene)	2	1	Endpoint 3 – RPA is inconclusive
Toxaphene	0.00021	35	Endpoint 3 – RPA is inconclusive
Trichloroethylene	27	5	Endpoint 3 – RPA is inconclusive
1,1,2-trichloroethane	9.4	5	Endpoint 3 – RPA is inconclusive
2,4,6-trichlorophenol	0.29	1.3	**Endpoint 2 - Effluent limit not necessary**
Vinyl Chloride	36	5	Endpoint 3 – RPA is inconclusive

[1] Projected maximum effluent concentration is projected water quality of the future ROC Blend commingled with the disinfected secondary effluent. The City estimated worst-case in-pipe concentrations of Ocean Plan constituents by modeling discharge scenarios with low secondary effluent combined with the maximum ROC Blend flow.

[2] 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 to not present a RP (i.e., Endpoint 1).

[3] 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.

4.3.4. **WQBEL Calculations**

Table 3 of the Ocean Plan includes water quality objectives for the protection of marine aquatic life, and these objectives are used to establish effluent limits for discharges from this Facility.

The Ocean Plan considers the "minimum probable initial dilution" in determining effluent limitations for toxic pollutants. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For the purposes of the Ocean Plan, minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates must 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.

4.3.5. **Indicator Bacteria**

This Order establishes effluent limitations for total coliform, fecal coliform, and *Enterococcus*. These effluent limitations are necessary to ensure discharges from the Facility are not causing or contributing to an exceedance of the water quality objectives in the Ocean Plan.

4.3.6. **Whole Effluent Toxicity (WET)**

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

The City has implemented the continuous Flowthrough Bioassay Module 5 for performing acute toxicity testing for its superior data and accuracy. When operational conditions adversely impact the operations of the Flowthrough Bioassay Lab, the City resorts to Static Renewal methods to fulfill the monitoring obligations. Section III.C.4.c of the Ocean Plan requires a Discharger to conduct chronic toxicity testing for discharges with minimum initial dilution ranging from

100:1 to 350:1. Therefore, annual monitoring for chronic toxicity has been established in accordance with Appendix III.7 of the Ocean Plan to evaluate compliance with the applicable chronic toxicity trigger based on the available minimum dilution for the discharge of 139 to 1.

The Discharger must also develop, maintain, and, if required, implement a Toxicity Reduction Evaluation (TRE) Workplan, as described in section 6.3.2.2 of the Order. The TRE Workplan shall describe steps that the Discharger intends to follow in the event that the chronic toxicity trigger is exceeded. When monitoring measures WET in the effluent above the trigger established by the Order, the Discharger must resample, if the discharge is continuing, and retest. The Central Coast Water Board Executive Officer will then determine whether to initiate enforcement action, require the Discharger to implement an incident TRE/TIE, or to implement other measures.

4.4. **Final Effluent Limitation Considerations**

4.4.1. **Anti-Backsliding Requirements**

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The Order also retains most of the effluent limitations from the previous Order for the California Ocean Plan Table 1 toxic pollutants. The California Ocean Plan includes a procedure for determining “reasonable potential” by characterization of effluent monitoring data. The California Ocean Plan’s Appendix VI procedure resulted in a finding of endpoint 2 (i.e., “no reasonable potential”) for ammonia, antimony, arsenic, cadmium, chlorinated phenolic compounds, chloroform, hexavalent and trivalent chromium, copper, lead, mercury, nickel, non-chlorinated phenolic compounds, chlorinated phenolic compounds, selenium, silver, thallium, zinc, di-n-butyl phthalate, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, beryllium, chlordane, chlorodibromomethane, DDT, dichlorobromomethane, PAHs, and 2,4,6-trichlorophenol in the discharge. Consistent with the California Ocean Plan, effluent limitations are not required for pollutants resulting in an Endpoint 2. The removal of these effluent limitations from this Order is consistent with CWA section 402(o)(2) and anti-backsliding regulations.

All other California Ocean Plan Table 1 pollutants resulted in an Endpoint 1 (i.e., “reasonable potential”) or Endpoint 3 (i.e., “inconclusive”). Therefore, the limitations for these pollutants (Endpoints 1 and 3) are retained in this Order. The Central Coast Water Board is also establishing WQBELs for whole effluent, acute and chronic toxicity, which are also pollutants or pollutant parameters identified by Table 1 of the California Ocean Plan.

4.4.2. **Antidegradation Policies**

WDRs for the Discharger must conform with federal and state antidegradation policies provided at 40 C.F.R. section 131.12 and in State Water Board

Resolution No. 68-16. This Order does not authorize increases in discharge rates or pollutant loadings, and its limitations and conditions otherwise ensure maintenance of the existing quality of receiving waters. When the Pure Water Soquel project is operational, reverse osmosis concentrate will be discharged at the Facility, which will not increase the discharge rate or pollutant loading.

The Facility will treat and discharge the same City of Santa Cruz and Santa Cruz County wastewater, therefore an increase in the volume or concentration of waste and discharge into existing high-quality waters is not expected. To ensure that there is no degradation to the receiving water, this Order establishes mass-based effluent limitations for Ocean Plan Table 3 pollutants calculated using the previously modeled dilution for the diffuser for the Facility and the permitted average dry weather flow for the Facility. The dilution credits previously established for the Facility are more stringent than the dilution credits established in this Order. In addition, the permitted average dry weather flow from the Facility is lower than the permitted flow for the Facility. Therefore, the established mass-based limits, will be more stringent than the mass-based limits previously established for the Facility and will ensure there is no degradation of water quality from the Facility effluent.

To conform with antidegradation policies, this Order further requires the implementation of recycled water management plans that decrease the discharge of treated effluent to the ocean and increase beneficial reuse. In the unlikely event that the proposed discharge produces a waste or increased volume or concentration of waste and discharge to existing high quality waters, the change will be consistent with the maximum benefit for the people of the state, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that prescribed in the Basin Plan.

4.4.3. **Stringency of Requirements for Individual Pollutants**

This Order contains TBELs for individual pollutants. The TBELs consist of restrictions on TOC, TSS, oil and grease, turbidity, settleable solids, and pH. Restrictions on these pollutants are discussed in section 4.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

In addition, this Order contains applicable California-specific, technology-based requirements established in the Ocean Plan in 1978. Under the EPA-approved Ocean Plan, inclusion of the TBELs in permits issued to all POTWs discharging to the ocean is mandatory; therefore, consideration of the factors in CWC section 13241 will not influence the inclusion of the Ocean Plan effluent limitations in this Order. Nevertheless, the factors in CWC section 13241 have been considered throughout this Order.

4.4.4. **Summary of Final Effluent Limitations – Discharge Point 001**

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

Table F-10. Effluent Limitations for Conventional Pollutants – Secondary Treatment Standards

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5) [1]	Milligram per liter (mg/L)	30	45	90		
BOD_5[1]	Pounds per day (lbs/day)[2]	4253	6380	12760		
Total Suspended Solids (TSS)	mg/L	30	45	90		
TSS	lbs/day[1]	4523	6380	12760		
pH	standard units				6.0	9.0

[1] As described in Order, TOC is used in place of BOD_5

[2] Mass loading limits were calculated using the following formulas: lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

4.4.4.1.1. **Percent Removal:** The average monthly percent removal of BOD_5 and TSS shall not be less than 85 percent, with compliance measured at Monitoring Location EFF-001A.

4.4.4.1.2. **Dry Weather Flow:** The annual average dry weather effluent flow from the Facility shall not exceed 17 MGD, with compliance measured at Monitoring Location EFF-001A.

4.4.4.2. When discharging saline waste to the ocean outfall at Discharge Point 001, the pH shall not exceed a minimum of 6.0 standard units and a maximum of 9.0 standard units, with compliance measured at Monitoring Location EFF-001D as described in Attachment E, the Monitoring and Reporting Program.

4.4.4.3. 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 Attachment E, the Monitoring and Reporting Program:

Table F-11. Effluent Limitations for Conventional Pollutants – Ocean Plan Pollutants

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75		
Oil and Grease	lbs/day[1]	3.545	5,671	10,634		
Settleable Solids	Milliliter per liter (mL/L)	1.0	1.5	3.0		
Turbidity	Nephelometric Turbidity Units (NTU)	75	100	225		

[1] Mass loading limits were calculated using the following formulas:
lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

Table F-12. Effluent Limitations for the Protection of Marine Aquatic Life

Parameter	Units[1]	6-Month Median[2]	Daily Maximum[3]	Instantaneous Maximum[4]
Endosulfan[6]	lbs/day	0.18	0.36	0.54
Endrin	lbs/day	0.04	0.08	0.12
Hexachlorohexanes (HCH)[6]	lbs/day	0.08	0.16	0.24

[1] Mass loading limits were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

[2] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered equal to zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration Ce and the observed flow rate, Q, in MGD.

[3] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate, Q, in MGD.

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

[5] As defined in Attachment A – Definitions.

Table F-13. Effluent Limitations for the Protection of Human Health – Non-Carcinogens

Parameter	Unit[1]	30-day Average
Acrolein	lbs/day	4.40E+03
Bis(2-chloroethoxy) methane	lbs/day	8.79E+01
Bis(2-chloroisopropyl) ether	lbs/day	2.41E+04
Chlorobenzene	lbs/day	1.22E+04
Dichlorobenzenes[2]	lbs/day	1.01E+05
Diethyl phthalate	lbs/day	4.68E+03
Dimethyl phthalate	lbs/day	1.56E+07
Ethylbenzene	lbs/day	8.08E+04
Hexachlorocyclopentadiene	lbs/day	1.15E+03
Nitrobenzene	lbs/day	9.78E+01
Toluene	lbs/day	1.70E+06
Tributyltin	lbs/day	2.84E-02
1,1,1-trichloroethane	lbs/day	1.08E+07

[1] Mass loading limits were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

[2] As defined in Attachment A – Definitions.

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

Parameter	Unit[1]	30-day Average
Acrylonitrile	lbs/day	1.84E+00
Aldrin	lbs/day	4.40E-04
Benzene	lbs/day	3.12E-06
Benzidine	lbs/day	1.38E-03
Beryllium	lbs/day	6.52E-01
Bis(2-chloroethyl) ether	lbs/day	8.93E-01
Bis(2-ethlyhexyl) phthalate	lbs/day	6.95E+01
Carbon tetrachloride	lbs/day	1.84E+02
Chlordane[2]	lbs/day	4.54E+02

Parameter	Unit[1]	30-day Average
Chlorodibromomethane	lbs/day	1.70E+02
Chloroform	lbs/day	2.56E+03
1,4-dichlorobenzene	lbs/day	3.54E+02
3,3'-dichlorobenzidine	lbs/day	1.56E-01
1,2-dichloroethane	lbs/day	5.52E+02
1,1-dichloroethylene	lbs/day	1.77E+01
Dichloromethane	lbs/day	8.87E+03
Dieldrin	lbs/day	7.94E-04
2,4-dinitrotoluene	lbs/day	5.10E+02
1,2-diphenylhydrazine	lbs/day	3.12E+00
Halomethanes[2]	lbs/day	2.55E+03
Heptachlor	lbs/day	9.92E-04
Heptachlor epoxide	lbs/day	3.97E-04
Hexachlorobenzene	lbs/day	4.11E-03
Hexachlorobutadiene	lbs/day	2.84E+02
Hexachloroethane	lbs/day	4.96E+01
Isophorone	lbs/day	1.42E+04
N-nitrosodimethylamine	lbs/day	1.42E+02
N-nitrosodi-N-propylamine	lbs/day	7.51E+00
N-nitrosodiphenylamine	lbs/day	3.54E+01
Polychlorinated Biphenyls (PCBs)[2]	lbs/day	2.69E-06
TCDD equivalents[2]	lbs/day	7.80E-08
1,1,2,2-tetrachloroethane	lbs/day	4.54E+01
Tetrachloroethylene	lbs/day	3.97E+01
Toxaphene	lbs/day	4.11E+01
Trichloroethylene	lbs/day	5.39E+02
1,1,2-trichloroethane	lbs/day	1.84E+02
Vinyl chloride	lbs/day	7.09E+02

[1] Mass loading limits were calculated using the following formula:
lbs/day = pollutant concentration (mg/L) * permitted flow (17 MGD) * conversion factor (8.34)

[2] As defined in Attachment A – Definitions.

4.5. **Interim Effluent Limitations – Not Applicable**

4.6. **Land Discharge Specifications – Not Applicable**

4.7. **Recycling Specifications**

This Order conditionally authorizes the Discharger to act as the producer of recycled (or reclaimed) water and to reuse recycled water at the Facility. The Discharger is responsible for compliance with all applicable requirements associated with the production and onsite use of recycled water as specified within this Order. The distribution and offsite reuse of recycled water produced by the Facility is subject to State Water Board Order WQ 2016-0068-DDW, *State Water Board General Water Reclamation Requirements for Recycled Water Use*, or other applicable permit, dependent on final use.

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. **Surface Water**

The Ocean Plan contains numeric and narrative water quality objectives applicable to the coastal waters of California. Water quality objectives include an objective to maintain the high-quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Ocean Plan.

5.2. **Groundwater – Not Applicable**

6. RATIONALE FOR PROVISIONS

6.1. **Standard Provisions**

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

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) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

6.2. **Special Provisions**

6.2.1. **Reopener Provisions**

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

6.2.2. **Special Studies and Additional Monitoring Requirements**

6.2.2.1. **Toxicity Reduction Requirements.** The requirements in section 6.3.2.1 through 3 of this Order address requirements necessary to ensure compliance with Ocean Plan objectives for toxicity. The requirement to develop and maintain a TRE Workplan is established in this Order. When toxicity monitoring measures chronic toxicity in the effluent above the trigger of 140 TUc (Toxicity Units Chronic) established by this Order, the Discharger is required to resample and retest, if the discharge is continuing. When all monitoring results are available, the Central Coast Water Board Executive Officer can determine whether to initiate enforcement action, whether to require the Discharger to implement TRE requirements, or whether other measures are warranted.

6.2.2.2. **Receiving Water Monitoring for Bacteria.** To evaluate potential impacts on human health and assist in public health determinations, the Order contains requirements to conduct receiving water monitoring when any of the following occur: 1) effluent bacterial monitoring results exceed receiving water bacterial standards for water-contact or shellfish harvesting specified in section 5.1.1 of the Order, 2) effluent violations that indicate potential for elevated bacteria concentrations in effluent, or 3) operational changes, plant upsets, or process failures that the Discharger determines have the potential to cause bacteria levels outside normal ranges in the effluent. The Discharger shall conduct surf zone and ocean receiving water monitoring for bacteria in accordance with section 8.1 of the Monitoring and Reporting Program (MRP). Results of the increased monitoring for bacteria shall be summarized and submitted in a report to the Central Coast Water Board Executive Officer.

6.2.2.3. **Reverse Osmosis Concentrate and Saline Waste Disposal Study**

The limitations and conditions in this permit are based on the characteristics of the primary and tertiary treated effluent, saline waste, and RO concentrate described in the ROWD. As such, the permit may not account for changes in composition or volume associated with additional RO concentrate or saline wastes. To facilitate recycling and decrease the discharge of salts to freshwater, the Central Coast Water Board encourages the discharge of ion exchange regeneration waste solutions to ocean outfalls. Prior to discharging additional RO concentrate or saline waste beyond what is described in this permit, the Discharger must provide information to the Central Coast Water Board and MBNMS that is necessary to determine if the permit adequately regulates the discharge or if additional requirements and/or permit modification is necessary.

6.2.2.4. **Ocean Outfall and Diffuser Monitoring.** The Order requires the Discharger to conduct annual visual inspections of the outfall and diffuser system and to conduct a dye study to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions.

6.2.3. **Best Management Practices and Pollution Prevention**

6.2.3.1. **Pollutant Minimization Program.** The 2019 Ocean Plan establishes requirements for a Pollutant Minimization Program (PMP) to reduce all potential sources of a pollutant through pollutant minimization control strategies. PMP language from section III.C.9 of the Ocean Plan is included in this Order to provide guidance in the event that a PMP must be developed and implemented by the Discharger. The Discharger is required to develop a PMP when there is evidence and effluent conditions present pursuant to section 6.3.3.1 or if required to do so in writing by the Central Coast Water Board Executive Officer.

6.2.4. **Construction, Operation, and Maintenance Specifications**

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

6.2.5. **Special Provisions for Publicly Owned Treatment Works (POTWs)**

6.2.5.1. **Biosolids.** The use and disposal of biosolids is regulated under federal and state laws and regulations, including permitting requirements and technical standards included in 40 C.F.R. part 503. The Discharger is required to comply with the standards and time schedules contained in 40 C.F.R. part 503, which is enforceable by U.S. EPA because California has not been delegated the authority to implement this program.

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

6.2.5.2. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2022-0103-DWQ).** The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2022-0103-DWQ (General Order) on December 6, 2022. The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The 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 requirement for the Discharger to enroll under 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.

6.2.6. **Special Provisions for Recycled Water Management**

This Order requires the Discharger to develop recycled water management plans. As discussed in section 3.3.9 of this Fact Sheet, the provisions for the recycled water management plans are authorized by the State Water Board's *Water Quality Control Policy for Recycled Water* pursuant to CWC section 13267 and by CWC 13383.[6] The Discharger has indicated that it seeks to maximize beneficial reuse of the produced wastewater at the Facility.

The State Water Board's *Water Quality Control Policy for Recycled Water* recognizes recycled water in California as a valuable resource and supports its increased use to encourage water supply diversity and sustainability. The *Water Quality Control Policy for Recycled Water* defines recycled water as "Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource (CWC section 13050(n))." This Order requires the Discharger to plan for and implement steps to achieve beneficial reuse of recycled water.

Section 3.1.1 of the *Water Quality Control Policy for Recycled Water* specifies the goal to reuse all dry weather direct discharges of treated wastewater to ocean waters that can be viably put to a beneficial use. Section 3.3.1 of the *Water Quality Control Policy for Recycled Water* specifies, "Agencies producing recycled water that is available for reuse and not being put to beneficial use shall make that recycled water available to water purveyors for reuse on reasonable terms and conditions." The State Water Board further indicated that in some circumstances, failure to use recycled water constitutes waste and unreasonable use of water. Section 3.3.2 of State Water Board's *Water Quality Control Policy for Recycled Water* specifies, "It is a waste and unreasonable use of water for water agencies not to use recycled water when recycled water of adequate quality is available and is not being put to beneficial use, pursuant to the conditions established in CWC sections 13550 et seq." Although the Discharger is not a water agency, the provisions described above are relevant because the Discharger is capable of producing disinfected tertiary recycled wastewater and is constructing advanced treatment technologies. Therefore, this Order includes a condition for the Discharger to prepare recycled water management plans to identify and demonstrate engagement with local water purveyors and other potential customers about beneficially reusing the Facility's treated effluent.

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[6] All of the monitoring and reporting requirements in this Order are authorized pursuant to CWC 13383. See, *In re The City of Oceanside, Fallbrook Public Utilities Dist. and the Southern California Alliance of Publicly Owned Treatment Works,* State Water Resources Control Board Order WQ 2021-005 at pp. 11-13 (wqo2021_0005 (ca.gov)). However, the *Water Quality Control Policy for Recycled Water* is a State Water Board Policy, and its requirements are authorized pursuant to CWC section 13267.

In Resolution No. 2017-0012, the State Water Board encourages Regional Boards to take a proactive approach to climate change their actions, with the intent to embed climate change consideration into all programs and activities. The resolution lays the groundwork for a robust response that will support California's ongoing climate leadership providing stormwater capture and use as a climate change mitigation strategy. Additionally, the State Water Board directs State Water Board and Regional Board staff to identify and recommend actions the Water Boards can take for "effective permitting of projects to develop new and underutilized water resources, expand surface water and groundwater storage where appropriate, and add operational flexibility to build and enhance resilience to impacts of climate change."[7]

Governor Gavin Newsom signed California Executive Order N-10-19 on April 29, 2019, ordering the California Natural Resources Agency (CNRA), the California Environmental Protection Agency (CalEPA), and the California Department of Food and Agriculture (CDFA), to together prepare a water resilience portfolio to meet the needs of California's community, economy, and environment through the 21st Century. Executive Order N-10-19 orders the aforementioned agencies to inventory and assess projected water needs and anticipated impacts of climate change to water supply reliability; and to develop a water resilience portfolio embodying multi-benefit approaches and embracing innovative technologies.

CNRA, CalEPA, and CDFA have prepared a draft 2020 Water Resilience Portfolio in response to Executive Order N-10-19, establishing portfolio actions assigned to additional state and local agencies, including Regional Water Boards. Actions assigned to the Regional Water Boards include "support regional decision making with watershed-scale climate vulnerability and adaptation assessments that include strategies to address risks to water supply, ecosystems, and water quality."

This Order's requirement that the Discharger plan to maximize beneficial reuse of the Facility's treated effluent is consistent with the actions assigned to the Central Coast Water Board in draft 2020 Water Resilience Portfolio.

Central Coast Water Board staff plan to coordinate reviews with the California Coastal Commission of the recycled water management plans required by this Order. This provides an opportunity to work with the California Coastal Commission to support both agencies' water management and recycling goals and collaborate to promote streamlined permitting of recycled water projects pursuant to the State Water Board's *Water Quality Control Policy for Recycled Water*. Section 3.4 of the State Water Board's *Water Quality Control Policy for*

[7] "Comprehensive Response to Climate Change," State Water Board Resolution No. 2017-0012, adopted March 7, 2017, pp. 4, 6, https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0012.pdf.

Recycled Water requests the "Coastal Commission to use their respective authorities to the fullest extent possible to promote and streamline permitting…of recycled water projects to assist…the regional water boards in increasing the use of recycled water in California to make progress toward achieving the recycled water goals set forth in 3.1." Section 4.2 of State Water Board's *Water Quality Control Policy for Recycled Water* specifies, "The regional water boards will, pursuant to [section] 3.3, use their authority to the fullest extent possible to encourage the use of recycled water and to streamline permitting of recycled water projects." Although the recycled water management plan approvals will not be permitting recycled water projects, these plans are part of the critical path towards bringing recycled water projects to fruition.

6.2.7. **Other Special Provisions**

6.2.7.1. **Discharge of Stormwater.** Stormwater flows from the wastewater treatment process areas are directed to the headworks and discharged with treated wastewater. These stormwater flows constitute all industrial stormwater at this facility, and, consequently, this Order regulates all industrial stormwater discharges at this facility along with wastewater discharges.

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

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

6.2.8. **Compliance Schedules – Not Applicable**

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 308 of the CWA and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Sections 13267 and 13383 of the CWC also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and

recordkeeping requirements, with Section 13267 being the specific statute authorizing all such activities pertaining to the State Water Board's *Water Quality Control Policy for Recycled Water*. The 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.

The Central Coast Water Board has considered the cost and need for monitoring and reporting generally in this NPDES permit. The discharger has provided the Central Coast Water Board with an estimation of its monitoring and reporting costs here, which are $74,000. Although the costs are significant, the costs are reasonable considering the nature of the wastewater discharge and because they result in critical data required under the Clean Water Act and which are needed to evaluate water quality generally, the impacts of the discharges on water quality specifically, and to ensure that beneficial uses are protected. The requirements are generally comparable to other ocean dischargers in the region. In addition, the regional monitoring data from the Discharger's participation in CCLEAN compliments this data and better characterizes the full effects of the discharge.

7.1. Influent Monitoring

In addition to influent flow monitoring, monitoring for TOC and TSS is required to determine compliance with this Order's 85 percent removal requirement for these pollutants. Monitoring of pollutants identified in Table 3 of the Ocean Plan is necessary to adequately characterize the influent.

7.2. Effluent Monitoring

Effluent monitoring is necessary to determine compliance with effluent limitations and evaluate compliance with applicable water quality objectives and criteria. The Discharger is required to monitor each individual waste stream discharging effluent to the ocean outfall at Discharge Point 001. These include secondary treated effluent from the wastewater treatment facility and commingled effluent (secondary-treated wastewater and ROC) discharged during the operation of the AWPF.

The Discharger is required to monitor TOC, TSS, and pH at Monitoring Location EFF-001A to determine compliance with secondary treatment standards applicable to the discharge from the Facility. The Discharger is also required to calculate the flow-weighted final effluent concentration for oil and grease, settleable solids, turbidity, and Ocean Plan Table 3 pollutants to determine compliance with effluent limits established for these pollutants. Water quality criteria established in the Ocean Plan for these pollutants are applicable to POTWs and industrial users with no established effluent limitation guidelines.

7.3. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) monitoring protects receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a longer period of time and may measure

mortality, reproduction, and or growth. This Order establishes monitoring requirements for chronic toxicity for Discharge Point 001. A chronic toxicity trigger of 140 TUc, which has been calculated consistent with the prescribed method in the 2019 Ocean Plan, has been established for this Order to determine if a TRE is required.

7.4. **Recycled Water Monitoring**

The State Water Board Recycled Water Policy requires that this Order include recycled water monitoring and reporting requirements. The Recycled Water Policy specifies wastewater treatment plant and recycled water producer annual reporting of monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type, as well as annual reporting of recycled water use by volume and category of reuse. Recycling water monitoring requirements in this Order are based on title 22 criteria.

7.5. **Receiving Water Monitoring**

7.5.1. **Surface Water**

Receiving water monitoring is necessary to determine compliance with receiving water limitations and evaluate compliance with applicable water quality objectives and criteria.

Surf zone monitoring is necessary to assess bacteriological conditions in areas used for body-contact sports (e.g., surfing) and where shellfish may be harvested for human consumption and to assess aesthetic conditions for general recreational uses (e.g., picnicking, boating, etc.). Ocean monitoring is necessary to evaluate the impacts of the discharge on the receiving water and to determine compliance with surface water limitations. Surface water receiving water monitoring requirements are consistent with other ocean discharge permits within the Central Coast Region.

Benthic monitoring is necessary to assess the temporal and spatial occurrence of pollutants in local marine sediments and to evaluate the physical and chemical quality of the sediments in relation to the outfall. Monitoring frequency is consistent with other similar municipal wastewater treatment facilities permitted to discharge to ocean waters in the Central Coast Region.

7.5.2. **Groundwater – Not Applicable**

7.6. **Other Monitoring Requirements**

7.6.1. **Biosolids/Sludge Monitoring**

Biosolids monitoring shall be reported in the annual report in accordance with 40 C.F.R. part 503. 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 (EPA SW-846), as required in section 503.8(b)(4), at the following minimum frequencies:

Volume (dry metric tons/year)	Frequency

0 – 290	once per year
290 – 1500	once per quarter
1500 – 15000	once per 60 days
> 15000	once per month

For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples. Test results shall be expressed in milligrams of pollutant per kilograms of 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.

7.6.2. **Ocean Outfall and Diffuser Inspection.**

The Order requires the Discharger to conduct visual inspections of the outfall and diffuser structure at least every year and provide reports of those inspections to the Central Coast Water Board regarding the system's physical integrity.

8. CONSIDERATION OF NEED TO PREVENT NUISANCE AND WATER CODE SECTION 13241 FACTORS

The requirements set forth in subsection 2.4 of this Order are included to implement state law only. These requirements are not required or authorized under the federal CWA; consequently, violations of these requirements is not subject to the enforcement remedies that are available for NPDES violations. As required by Water Code section 13263, the Central Coast Water Board has considered the need to prevent nuisance and the factors listed in Water Code section 13241 in establishing the state law provisions/requirements. The Central Coast Water Board finds, on balance, that the state law requirements in this Order are reasonably necessary to prevent nuisance and to protect beneficial uses identified in the Basin Plan, and the section 13241 factors are not sufficient to justify failing to protect those beneficial uses.

8.1. Need to prevent pollution or nuisance

In establishing effluent limitations in this Order, the Central Coast Water Board has considered state law requirements to prevent pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the Water Code. The requirement in this Order based on state law is an investigation of the feasibility of recycling (see, Order section 6.3.6.2, phase 2 recycled water management plan) and/or alternative disposal methods for wastewater (such as reclamation and reuse on site). This investigation will allow the Central Coast Water Board to determine if and how to prevent nuisance or pollution from any recycling or conservation program that might be implemented in the future.

8.2. Past, present, and probable future beneficial uses of water

Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Central Coast Region. Beneficial uses of water relevant to this Order are also

identified above in sections 3.3.1 and 3.3.3 of this Fact Sheet. The Central Coast Water Board has taken this factor into account in establishing effluent limitations in the Order, including those set forth in section 4.3 and 6.3.6.2 of this Order. The phase 2 recycled water management plan will not affect the past or present beneficial uses of water, but it could affect the future beneficial uses of water. Should the Discharger be required to implement actions based on the feasibility investigation, any recycled water that may be produced will have to meet all legal requirements, including those set forth in Title 22 to protect future beneficial uses. In addition, the recycled water produced by the Facility here meets all necessary requirements of Title 22 and will replace the use of other sources of water onsite. Further, the Facility will send recycled water to other distributors to further augment and protect the present and probable future beneficial uses of water in the Santa Cruz Mid-County groundwater basin/Big Basin Hydrologic Unit. Accordingly, the requirements herein protect and augment the past, present and probable future beneficial uses of the water.

8.3. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto

The environmental characteristics of this watershed are discussed in the Basin Plan, as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available recycled water that may be produced as a result of this Order and/or studied through the phase 2 recycled water management plan, will be improved by compliance with the requirements of this Order.

8.4. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area

The water quality standards necessary to protect beneficial uses of the waterbodies in the Santa Cruz Mid-County groundwater basin/Big Basin Hydrologic Unit can reasonably be achieved through the coordinated control of all factors that affect water quality in the area, including the conservation of water and/or the production of recycled water authorized by this Order. For example, the water quality in the watershed and/or groundwater basin could be improved through the addition or use of recycled water authorized by this Order, which meets Title 22 standards. The Central Coast Water Board has taken this factor into account in establishing effluent limitations in the Order.

8.5 The need for developing housing within the region

The Central Coast Water Board does not anticipate that these state law requirements will adversely impact the need for housing in the area. To the contrary, this Order helps address the need for housing by controlling pollutants in discharges and by allowing the reuse and exportation of recycled water for use in

the area. Both of these things will improve the quality of local surface and groundwater, as well as water supply generally. This may in turn increase the region's capacity to support continued housing development. Therefore, the potential for developing housing in the area will be facilitated by the conservation of water, or reuse or the production of, recycled water, under this permit.

8.6. Need to develop and use recycled water

The State Water Board's Recycled Water Policy requires the Central Coast Water Board to encourage the use of recycled water. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent and to report on its recycled water production and use. The Discharger shall submit an update to this feasibility investigation as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

9. PUBLIC PARTICIPATION

The Central Coast Water Board is considering the issuance of WDRs that will serve as an NPDES permit for the City of Santa Cruz's Water Reclamation Facility. As a step in the WDR adoption process, the Central Coast Water Board staff developed tentative WDRs and encourages public participation in the WDR adoption process.

9.1. Notification of Interested Persons

The Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through posting on the Central Coast Water Board website.

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/

9.2. Written Comments

Interested persons are invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments are due to the Central Coast Water Board in person, by delivery, or post at the letterhead address or by email at: http://www.waterboards.ca.gov/centralcoast/.

To be fully responded to by staff and considered by the Central Coast Water Board, written comments are due by 5:00 p.m. on October 12, 2023.

9.3. Public Hearing

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

Date:	**December 14-15, 2023**
Time:	**9:00 a.m.**
Location:	**Central Coast Water Board** **895 Aerovista Place, Suite 101** **San Luis Obispo, CA 93401**

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

9.4. **Petition for State Water Board Review 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 CWC section 13320 and CCR, 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

9.5. **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.

9.6. **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.

9.7. **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 Arwen Wyatt-Mair at (805) 542-4695 or arwen.wyattmair@waterboards.ca.gov.