CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER R4-2019-XXXX
NPDES NO. CA0054372

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF AVALON AVALON WASTEWATER TREATMENT FACILITY, LOS ANGELES COUNTY DISCHARGE TO THE PACIFIC OCEAN VIA OUTFALL 001

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

Table 1. Discharger Information

Discharger	City of Avalon (Discharger)
Name of Facility	Avalon Wastewater Treatment Facility (Avalon WWTF), collection system, and outfall
Facility Address	123 Pebbly Beach Road
	Avalon, CA 90704
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary treated wastewater	33.338611	-118.311111	Pacific Ocean

Table 3. Administrative Information

This Order was adopted on:	**February 14, 2019**
This Order shall become effective on:	**April 01, 2019**
This Order shall expire on:	**March 31, 2024**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**180 days prior to the Order expiration date**
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region, have classified this discharge as follows:	**Major**

I, Deborah J. Smith, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **February 14, 2019**.

Deborah J. Smith, Executive Officer

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Avalon Wastewater Treatment Facility (Facility or Avalon WWTF) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board), finds:

A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B, IV.C, and V.B are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations. None of these provisions are applicable in this Order.

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

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

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R4-2013-0182 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

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

B. Discharge to designated Areas of Special Biological Significance is prohibited.

C. Pipeline discharge of sludge to the ocean is prohibited by federal law. The discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that

discharges to the ocean is prohibited by the California 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.

D. The treatment, use, and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment.

E. The bypassing of untreated wastes containing concentrations of pollutants in excess of those of Table 1 or Table 2 of the Ocean Plan to the ocean is prohibited.

F. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Standard Provisions.

G. Discharge of treated wastewater at a location different from that described in this Order is prohibited.

H. The monthly average effluent dry weather discharge flow rate from the collection system to the headworks of the Facility shall not exceed the dry weather flow capacity of 1.2 million gallons per day.

I. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

IV. EFFLUENT LIMITATIONS, PERFORMANCE GOALS, AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations and Performance Goals – Discharge Point 001

Effluent limitations for Discharge Point 001 are specified below. The discharge of treated wastewater with constituents in excess of the effluent limitations is prohibited.

The performance goals for Discharge Point 001 are prescribed below in this Order. Performance goals are based upon actual performance data for the Avalon WWTF and are specified only as an indication of the treatment efficiency of the plant. They are not considered enforceable effluent limitations or standards for the plant. The Discharger shall maintain, if not improve, the effluent quality at or below the performance goal concentrations. Any two consecutive exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Discharger shall submit a written report to the Regional Water Board on the nature of the exceedance, the results of the investigation including the cause of the exceedance, the corrective actions taken, any proposed corrective measures, and a timetable for implementation, if necessary. The Executive Officer of the Regional Water Board may modify any of the performance goals if the Discharger submits a request and demonstrates that the change is warranted.

1. Final Effluent Limitations – Discharge Point 001

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

Table 4. Final Effluent Limitations and Performance Goals

Parameter	Units	Effluent Limitations[1]					Performance Goals
		Average Monthly	Average Weekly	Maximum Daily[2]	Instan-taneous Maximum[3]	Running Annual Average	Monthly Average
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	35	--	--	--	--
	lbs/day[4]	200	350	--	--	--	--
Total Suspended Solids	mg/L	30	45	--	--	--	--
	lbs/day[4]	300	450	--	--	--	--
Removal efficiency for TSS	%	85	--	--	--	--	--
Removal efficiency for BOD	%	85	--	--	--	--	--
Temperature	ºF	--	--	--	100	--	--
pH	standard units	6.0 (instantaneous minimum) – 9.0 (instantaneous maximum)					--
Oil and Grease	mg/L	25	40	--	75	--	--
	lbs/day[4]	250	400	--	750	--	--
Settleable Solids	mL/L	1.0	1.5	--	3.0	--	--
Turbidity	NTU	75	100	--	225	--	--
Marine Aquatic Life Toxicants							
Arsenic	µg/L	--	--	--	--	--	12.5
Cadmium	µg/L	--	--	--	--	--	0.32
Chromium (VI)	µg/L	--	--	--	--	--	25
Copper	µg/L	--	--	--	--	--	16
Lead	µg/L	--	--	--	--	--	2.5
Mercury	µg/L	--	--	--	--	--	0.099
Nickel	µg/L	--	--	--	--	--	13.4
Selenium	µg/L	--	--	--	--	--	14
Silver	µg/L	--	--	--	--	--	0.5
Zinc	µg/L	--	--	--	--	--	136
Cyanide	~~µm~~g/L	--	--	--	--	--	~~0.00076~~20
Total Chlorine Residual	µg/L	120	--	490	3,700	--	--
	lbs/day[4]	1.2	--	4.9	37	--	--
Ammonia as Nitrogen	mg/L	--	--	--	--	--	9.3

[1] The minimum dilution ratio used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Point 001 is 60:1 (i.e., 60 parts seawater to one-part effluent).

[2] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. If 24-hour composite samples are not appropriate for a pollutant due to the pollutant's instability in solution (ex. total chlorine residual), the maximum daily effluent limitation shall apply to grab samples.

[3] The instantaneous maximum effluent limitations shall apply to grab samples.

[4] The mass emission rates are calculated using 1.2 MGD, consistent with the water-quality based limits in the previous permit: lbs/day = 0.00834 x Ce (effluent concentration in µg/L) x Q (flow rate in MGD). During storm events when flow exceeds 1.2 MGD, the mass emission rate limitations shall not apply.

Parameter	Units	Effluent Limitations[1]					Performance Goals
		Average Monthly	Average Weekly	Maximum Daily[2]	Instan-taneous Maximum[3]	Running Annual Average	Monthly Average
Chronic Toxicity[5,6] (TST)	Pass or Fail	--	--	Pass	--	--	--
Phenolic compounds (non-chlorinated)[7]	µg/L	--	--	--	--	--	5
Phenolic compounds (chlorinated)[7]	µg/L	--	--	--	--	--	5
Endosulfan[7]	µg/L	--	--	--	--	--	0.05
Endrin	µg/L	--	--	--	--	--	0.05
Hexachloro-cyclohexane (HCH)[7]	µg/L	--	--	--	--	--	0.025
Radioactivity							
Gross Alpha	pCi/L	--	--	--	--	~~--15~~	--15[8]
Gross Beta	pCi/L	--	--	--	--	~~50--~~	~~--~~50[8]
Combined Radium-226 & Radium-228	pCi/L	--	--	--	--	~~--5.0~~	~~--~~5.0[8]
Tritium	pCi/L	--	--	--	--	~~--20,000~~	~~--~~20,000[8]
Strontium-90	pCi/L	--	--	--	--	~~--8.0~~	8.0~~--~~[8]
Uranium	pCi/L	--	--	--	--	~~--20~~	20~~--~~[8]
Human Health Toxicants – Non-Carcinogens							
Acrolein	µg/L	--	--	--	--	--	25
Antimony	µg/L	--	--	--	--	--	2
Bis(2-chloroethoxy) methane	µg/L	--	--	--	--	--	25
Bis(2-chloroisopropyl) ether	µg/L	--	--	--	--	--	10
Chlorobenzene	µg/L	--	--	--	--	--	10
Chromium (III)	µg/L	--	--	--	--	--	6
Di-n-butyl-phthalate	µg/L	--	--	--	--	--	0.49
Dichlorobenzenes[7]	µg/L	--	--	--	--	--	5
Diethyl phthalate	µg/L	--	--	--	--	--	3.1
Dimethyl phthalate	µg/L	--	--	--	--	--	10

[5] The Chronic Toxicity final effluent limitation is protective of both the numeric acute and chronic toxicity 2015 Ocean Plan water quality objectives. The final effluent limitation will be implemented using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), current USEPA guidance in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (http://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf) and *EPA Regions 8, 9, and 10, Toxicity Training Tool* (January 2010).

[6] The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail." See section V.A.5.a of the MRP.

[7] See section VIII of this Order and Attachment A for definition of terms.

[8] This performance goal is based on a running annual average.

Parameter	Units	Effluent Limitations[1]					Performance Goals
		Average Monthly	Average Weekly	Maximum Daily[2]	Instan-taneous Maximum[3]	Running Annual Average	Monthly Average
4,6-dinitro-2-methylphenol	µg/L	--	--	--	--	--	25
2,4-dinitrophenol	µg/L	--	--	--	--	--	25
Ethylbenzene	µg/L	--	--	--	--	--	10
Fluoranthene	µg/L	--	--	--	--	--	0.25
Hexachloro-cyclopentadiene	µg/L	--	--	--	--	--	25
Nitrobenzene	µg/L	--	--	--	--	--	5
Thallium	µg/L	--	--	--	--	--	5
Toluene	µg/L	--	--	--	--	--	10
Tributyltin	µg/L	--	--	--	--	--	14.50.04
1,1,1-Trichloroethane	µg/L	--	--	--	--	--	10
Human Health Toxicants – Carcinogens							
Acrylonitrile	µg/L	--	--	--	--	--	6.1
Aldrin	µg/L	--	--	--	--	--	0.0013
Benzene	µg/L	--	--	--	--	--	10
Benzidine	µg/L	--	--	--	--	--	0.0042
Beryllium	µg/L	--	--	--	--	--	2
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	--	2.7
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	--	32
Carbon tetrachloride	µg/L	--	--	--	--	--	10
Chlordane[7]	µg/L	--	--	--	--	--	0.0014
Chlorodibromomethane	µg/L	--	--	--	--	--	10
Chloroform	µg/L	--	--	--	--	--	0.83
DDT[7]	µg/L	--	--	--	--	--	0.01
1,4-dichlorobenzene	µg/L	--	--	--	--	--	10
3,3'-dichlorobenzidine	µg/L	--	--	--	--	--	0.49
1,2-dichloroethane	µg/L	--	--	--	--	--	10
1,1-dichloroethylene	µg/L	--	--	--	--	--	10
Dichlorobromomethane	µg/L	--	--	--	--	--	10
Dichloromethane	µg/L	--	--	--	--	--	10
1,3-dichloropropene	µg/L	--	--	--	--	--	10
Dieldrin	µg/L	--	--	--	--	--	0.0024
2,4-dinitrotoluene	µg/L	--	--	--	--	--	25
1,2-diphenylhydrazine	µg/L	--	--	--	--	--	5
Halomethanes	µg/L	--	--	--	--	--	10
Heptachlor	µg/L	--	--	--	--	--	0.0031
Heptachlor epoxide	µg/L	--	--	--	--	--	0.0012
Hexachlorobenzene	µg/L	--	--	--	--	--	0.013
Hexachlorobutadiene	µg/L	--	--	--	--	--	5

Parameter	Units	Effluent Limitations[1]					Performance Goals
		Average Monthly	Average Weekly	Maximum Daily[2]	Instan-taneous Maximum[3]	Running Annual Average	Monthly Average
Hexachloroethane	µg/L	--	--	--	--	--	5
Isophorone	µg/L	--	--	--	--	--	5
N-Nitroso-dimethylamine	µg/L	--	--	--	--	--	25
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	--	23
N-Nitroso-diphenylamine	µg/L	--	--	--	--	--	5
Polycyclic Aromatic Hydrocarbons (PAHs)[7]	µg/L	--	--	--	--	--	0.25
Total Polychlorinated Biphenyls (PCBs)[7] as Aroclors	µg/L	--	--	--	--	--	0.0012
TCDD Equivalents[7]	pg/L	0.24	--	--	--	--	--
	lbs/day[4]	$2.4x10^{-9}$	--	--	--	--	--
1,1,2,2-Tetrachloro-ethane	µg/L	--	--	--	--	--	10
Tetrachloroethylene	µg/L	--	--	--	--	--	10
Toxaphene	µg/L	--	--	--	--	--	0.013
Trichloroethylene	µg/L	--	--	--	--	--	10
1,1,2-Trichloroethane	µg/L	--	--	--	--	--	10
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--	18
Vinyl chloride	µg/L	--	--	--	--	--	10

b. **Radioactivity:** Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article ~~3~~1, Section 30253 of the California Code of Regulations. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

c. Waste discharged to the ocean must be essentially free of:

i. Material that is floatable or will become floatable upon discharge.

ii. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

iii. Substances that will accumulate to toxic levels in marine waters, sediments or biota.

iv. Substances that significantly decrease the natural light to benthic communities and other marine life.

v. Materials that result in aesthetically undesirable discoloration of the ocean surface.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications –Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

The Discharger shall not cause a violation of the following water quality objectives. Compliance with these water quality objectives shall be determined by samples collected at stations outside the zone of initial dilution as specified in the MRP.

A. Surface Water Limitations

1. Bacterial Characteristics

   a. State/Regional Water Board 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 further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

      i. 30-day Geometric Mean Limits

         (a) Total coliform density shall not exceed 1,000/100 mL.

         (b) Fecal coliform density shall not exceed 200/100 mL.

         (c) *Enterococcus* density shall not exceed 35/100 mL.

      ii. Single Sample Maximum Limits (SSM)

         (a) Total coliform density shall not exceed 10,000/100 mL.

         (b) Fecal coliform density shall not exceed 400/100 mL.

         (c) *Enterococcus* density shall not exceed 104/100 mL.

         (d) Total coliform density shall not exceed 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

      The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period). If any of the single sample limits are exceeded, the Regional Water Board may require daily repeat sampling until the sample falls below the single sample limit to determine the persistence of the exceedance. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

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

   c. Consistent with Resolution No. R4-2012-0077, the Cease and Desist Order (CDO) and TMDL adopted for Avalon Beach on April 05, 2012:

      i. In accordance with section IX.27 of the CDO/TMDL, the City is required to achieve the following for WLAs assigned to the POTW and its collection system:

         a. Discharges from the POTW shall not cause or contribute to any exceedances of the numeric targets set forth in the CDO/TMDL; and

b. For discharges from the collection system, there shall be no discharge resulting in detectable levels of total coliform, fecal coliform, or *Enterococcus* used as the fecal indicator bacteria in the CDO/TMDL.

d. State Water Resources Control Board, Division of Drinking Water (DDW) Standards

DDW has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the California Code of Regulations, Title 17, section 7958, and they are identical to the objectives contained in subsection a, above. When a public beach or public water-contact sports area fails to meet these standards, DDW or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. DDW regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations (this incorporation by reference is prospective including future changes to the incorporated provisions as changes take effect), DDW imposes the same standards as contained in Title 17, California Code of Regulations, and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

2. Shellfish Harvesting Standards

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

3. Physical Characteristics

The waste discharged shall not:

a. cause floating particulates and oil and grease to be visible;

b. cause aesthetically undesirable discoloration on the ocean surface;

c. significantly reduce the transmittance of natural light at any point outside the initial dilution zone;

d. change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded; and

e. cause trash to be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

4. Chemical Characteristics

The waste discharged shall not:

a. cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste;

b. change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;

c. cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;

d. cause concentration of substances (as set forth in Chapter II, Table 1 of the 2015 Ocean Plan) in marine sediments to be increased to levels that would degrade indigenous biota;

e. cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life;

f. contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota;

~~g.~~ produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life;

~~h.~~g. ~~contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses;~~ and

~~i.~~h. cause the numeric water quality objectives established in the Ocean Plan to be exceeded outside the zone of initial dilution.

5. Biological Characteristics

The waste discharged shall not:

a. degrade marine communities, including vertebrate, invertebrate, and plant species;

b. alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption;

c. cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health; and

~~d. contain substances that result in biochemical oxygen demand that adversely affects the beneficial uses of the receiving water.~~

6. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

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

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the California Water Code (CWC).

b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.

c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

d. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.

e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board.

f. The provisions of this Order are severable. If any provision of this Order or the application of any provision of this Order is found invalid, the remainder of this Order shall not be affected.

g. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.

h. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties to which the Discharger is or may be subject to under section 311 of the CWA.

i. Discharge of wastes to any point other than specifically described in this Order is prohibited.

j. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the federal CWA and amendments thereto.

k. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility; and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

l. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

m. A copy of these waste discharge specifications shall be maintained at the discharge Facility and be available at all times to operating personnel.

n. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not staffed at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

o. The Discharger shall file with the Regional Water Board a Report of Waste Discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.

p. The Discharger shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board, 30 days prior to taking effect.

r. CWC section 13387 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this Order is subject to a fine of not more than $25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment of not more than four years, or by both.

s. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.

t. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

   i. Name and general composition of the chemical,

   ii. Frequency of use,

   iii. Quantities to be used,

   iv. Proposed discharge concentrations, and

   v. USEPA registration number, if applicable.

u. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

v. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order that may endanger health or the environment, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Regional Water Board by telephone (213) 620-2083, or by fax at (213) 576-6660, within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Regional Water Board within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-0066 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

w. CWC section 13385(h)(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) § 123.45 specifies the Group I and II pollutants. Pursuant to CWC section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

x. CWC section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three non-serious violations within that time period.

y. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim, and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E.

C. Special Provisions

1. Reopener Provisions

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

b. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR § 122 and 124, to incorporate requirements for the implementation of the watershed protection management approach.

c. This Order may be modified, in accordance with the provisions set forth in 40 CFR § 122 to 124, to include new minimum levels (MLs).

d. This Order may be reopened and modified to revise effluent limitations as a result of future additions or amendments to a statewide control plan or the Los Angeles Region's Basin Plan or the adoption or revision of a Total Maximum Daily Load (TMDL).

e. The Regional Water Board may modify or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order

will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

f. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR § 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption and issuance. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

g. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

   i. Violation of any term or condition contained in this Order;

   ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or

   iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

h. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

i. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

j. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.

k. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.

l. This Order will be reopened and modified to revise any of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to be consistent with the Toxicity Plan that is subsequently adopted by the State Water Board promptly after USEPA-approval of such plan.

m. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, a new state-wide plan, new laws, or new regulations.

n. This Order may be reopened and modified to incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) if the Regional Water Board Executive Officer determines that a pretreatment program is necessary to address the introduction of any pollutants into the POTW or any substantial change in the volume or character of pollutants in the discharge.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. ~~Radioactivity Source Identification and Control~~ Gross Beta Radioactivity Study

The discharger shall conduct a special study investigating the accuracy and reliability of the approved analytical methods for gross beta radioactivity when analyzing the Avalon WWTF final effluent. ~~Since monitoring results indicate that the discharge had multiple exceedances of the final effluent limitation for beta radioactivity, the Discharger shall conduct a source identification and control study for beta radioactivity.~~ The Discharger shall submit a work plan within 90 days of the effective date of this Order for Executive Officer approval.

b. Toxicity Reduction Requirements

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan in accordance with Monitoring and Reporting Program section V.A.6.

c. **Treatment Plant Capacity**

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report and certifies that the discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

i. The average daily flow for the calendar month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;

ii. The Discharger's best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the POTW; and

iii. 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.

This requirement is applicable to those facilities that have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such report shall be filed within 90 days of the issuance of this Order.

3. Best Management Practices and Pollution Prevention

a. **Storm Water Pollution Prevention Plan (SWPPP)**

The Avalon Wastewater Treatment Facility is regulated under the State Water Board Order No. 2014-0057-DWQ, *General Permit for Discharge for Storm Water Discharges Associated with Industrial Activities* (NPDES No. CAS000001).

b. **Spill Clean-up Contingency Plan (SCCP)**

Within 90 days of the effective date of this Order, the Discharger is required to submit an updated SCCP. The updated SCCP shall describe the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated wastewater from the Discharger's collection system or treatment facilities that reach water bodies including dry channels and beach sands. At a minimum, the plan shall describe compliance with section VI.C.6. of this Order and include sections on spill clean-up and containment measures, public notifications, and monitoring. The

Discharger shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Discharger shall include a discussion in the annual summary report of any modifications to the plan and the application of the plan to all spills during the year.

The updated SCCP shall include a conceptual monitoring protocol for spills greater than 10,000 gallons to beach sands to: (1) define the extent of the waste discharged to beach sands and adjacent surface waters, and (2) to confirm the conclusion and effectiveness of the clean-up and/or mitigation measures. The plan shall include a protocol for coordination with the local health department during such an event.

c. **Pollutant Minimization Program**

Reporting protocols in the MRP (Attachment E) section X.B.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported ML and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

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

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

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

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

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

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

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

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

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

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

(b) A list of potential sources of the reportable pollutant(s);

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

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

4. Construction, Operation and Maintenance Specifications

a. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR, title 23, division 3, chapter 26 (CWC sections 13625 – 13633).

b. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

c. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

d. The Discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment facility to conform to latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

i. Description of the treatment plant personnel organization and listing of emergency contacts.

ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

iii. Process and equipment inspection and maintenance schedules.

iv. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.

v. Reference to the most current SCCP.

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

a. **Biosolids Disposal Requirements – Refer to Attachment H**

i. All biosolids generated at the wastewater treatment plant must be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 CFR § 503. These requirements are enforceable by USEPA.

ii. The Discharger is separately required to comply with the requirements in State Water Board Order No. 2004-0012-DWQ, *General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities*, for those sites receiving the Discharger's biosolids which a Regional Water Board has placed under this general order, and with the requirements in individual WDRs issued by a Regional Water Board for sites receiving the Discharger's biosolids.

b. **Collection System Requirements**

The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 CFR part 122.41(e)), report any noncompliance (40 CFR parts 122.41(l)(6) and (7)), and mitigate any discharge from the collection system in violation of the permit (40 CFR 122.41(d)). See attachment D, subsections I.D, V.E, V.H, and I.C, and the following section (Spill Reporting Requirements) of this Order.

6. Spill Reporting Requirements for POTWs

a. **Initial Notification**

Although State and Regional Water Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than **two hours** after becoming aware of the release.

ii. In accordance with the requirements of CWC section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two hours after becoming aware of the release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550.

iii. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than **two hours** after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal OES and the local health

officer or the director of environmental health with jurisdiction over the affected water body. The phone number for reporting these releases of sewage to the Regional Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Regional Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Regional Water Board:

(a) The location, date, and time of the release;

(b) The route of the spill including the water body that received or will receive the discharge;

(c) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;

(d) If ongoing, the estimated flow rate of the release at the time of the notification; and,

(e) The name, organization, phone number and email address of the reporting representative.

(f) A certification that the State Office of Emergency Services and the local health officers or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge.

b. **Monitoring**

For spills, overflows and bypasses reported under section VI.C.6.a, the Discharger shall monitor as required below:

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples from the receiving water for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). If a grab sample cannot be obtained due to accessibility or safety concerns that cannot be addressed with the appropriate personal protective equipment or following proper sampling procedures, the sample shall be obtained as soon as it becomes safe to do so. The Discharger shall analyze the samples for total coliform, fecal coliform, *E. coli* (if fecal coliform tests positive), *Enterococcus*, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). This monitoring shall be conducted daily from the time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

c. **Reporting**

The initial notification required under section VI.C.6.a shall be followed by:

i. As soon as possible, but **not later than twenty-four (24) hours** after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to the Regional Water Board by email at augustine.anijielo@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with

jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

(a) Agency, NPDES No., Order No., and MRP CI No., if applicable;

(b) The location, date, and time of the discharge;

(c) The water body that received the discharge;

(d) A description of the level of treatment of the sewage or other waste discharged;

(e) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;

(f) The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,

(g) The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

ii. A written preliminary report five (5) working days after disclosure of the incident is required. Submission to the Regional Water Board California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to statewide General WDRs for Wastewater Collection System Agencies (SSO WDR), may be submitted to the Regional Water Board to satisfy this requirement.) The written report shall document the information required in paragraph “d” below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger’s preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. **Records**

The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report. The records shall contain:

i. The date and time of each spill, overflow, or bypass;

ii. The location of each spill, overflow, or bypass;

iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section VI.C.6.b;

iv. The cause of each spill, overflow, or bypass;

v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

vi. Any mitigation measures implemented;

vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,

viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSO WDR.

e. **Activities Coordination**

Although not required by this Order, the Regional Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program if applicable, (ii) an MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements, (iii) the SSO WDR, and (iv) any other order issued to the City regulating the discharge of waste to waters of the United States and waters of the state, including but not limited to Cease and Desist Order (CDO) No. R4-2012-0077.

f. **Consistency with the Sanitary Sewer Overflow (SSO) WDRs**

i. The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code sections 1311, 1342). The State Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems (WQ Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSOs database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

ii. The requirements contained in this Order in sections VI.C.3.b (SCCP), VI.C.4 (Construction, Operation and Maintenance Specifications), and VI.C.7 (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see finding 11 of State Water Board Order

No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Discharger under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

iii. The requirements in CDO No. R4-2012-0077 are also intended to meet or exceed requirements contained in the SSO WDRs. To the extent that CDO No. R4-2012-0077 conflicts with the SSO WDRs, the requirements in CDO No. R4-2012-0077 supersedes and controls. CDO No. R4-2012-0077 does not, however relieve the Discharger of any of its obligations to comply with the SSO WDRs in situations where that requirement is not in conflict with or controlled by a more specific requirement in CDO No. R4-2012-0077.

7. Other Special Provisions – Not Applicable

8. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

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

A. General

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

B. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger may 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). If only a single sample is collected during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. For those average monthly effluent limitations that are based on the 6-month median water quality objectives in the 2015 Ocean Plan, the daily value used to calculate these average monthly values for intermittent discharges, shall be considered to equal zero for days on which no discharge occurred. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar month with respect to the AMEL.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Discharger will have demonstrated compliance with the AMEL for each day of that month for that parameter.

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Discharger may collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples estimated from the "Multiple Sample Data Reduction" section above, will be used for compliance determination.

In the event of noncompliance with an AMEL, the sampling frequency for that parameter shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

D. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is collected 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 collected, no compliance determination can be made for that calendar week with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month to calculate and report a consecutive seven-day average value on Saturday.

E. Maximum Daily Effluent Limitation (MDEL)

If a 24-hour composite sample exceeds the MDEL for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

F. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected

within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. Six-month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is collected. If only a single sample is collected during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is collected, no compliance determination can be made for the six-month median effluent limitation.

I. Annual Average Effluent Limitation

If the annual average of monthly discharges over a calendar year exceeds the annual average effluent limitation for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each month of that year for that parameter. A potential violation of the annual average effluent limitation will be considered one violation for assessing State mandatory minimum penalties. If no sample (daily discharge) is collected over a calendar year, no compliance determination can be made for that year with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

J. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” from a chronic toxicity test using the TST statistical t-test approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*, Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1 (USEPA 833-R-10-003, 2010). The null hypothesis (Ho) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (IWC) response ≤0.75. Mean control response. A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.” This is a t-test (formally Student’s t-test), a statistical analysis comparing two sets of replicate observations – in the case of a Whole Effluent Toxicity (WET) test, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”)). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, using the TST statistical approach, results in “Fail.”

The chronic toxicity MDEL is set at the IWC for the discharge (1.64%) and expressed in units of the TST statistical approach ("Pass" or Fail"). All NPDES effluent compliance monitoring for the chronic toxicity MDEL shall be reported using only the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). The Regional Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at V.C.6). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Resources Control Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observed Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Regional Water Board (40 CFR § 122.41(h)). The Regional Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Discharger, USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program as needed.

K. Percent Removal

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

Percent Removal (%) = $[1-(C_{Effluent}/C_{Influent})] \times 100$ %

When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

L. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

M. Compliance with Single Constituent Effluent Limitations

Dischargers may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section B "Multiple Sample Data Reduction" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the ML or RL.

N. Compliance with effluent limitations expressed as a sum of several constituents

Dischargers are out of compliance with an effluent limitation that applies to the sum of a group of chemicals (e.g., PCBs) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

O. Mass Emission Rate

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lbs/day)} = \frac{8.34}{N}\sum_{i=1}^{N} Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N}\sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Q_i' and 'C_i' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be collected on any calendar day. If a composite sample is taken, 'C_i' is the concentration measured in the composite sample and 'Q_i' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t}\sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of component waste streams. 'Q_i' and 'C_i' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q_t' is the total flow rate of the combined waste streams.

P. Bacterial Standards and Analysis

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

   $$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_3)^{1/n}$$

   where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliform, at a minimum, and 1 to 1000 per 100 mL for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.

4. Detection methods used for *Enterococcus* shall be those presented in Table 1A of 40 CFR § 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for* Escherichia coli *and* Enterococci *in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

Q. Single Operational Upset (SOU)

A SOU that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision V.E.2 (b) of Attachment D – Standard Provisions.
3. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum “Issuance of Guidance Interpreting Single Operational Upset” (September 27, 1989).
4. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

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.

Best Management Practice (BMP)
BMPs are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs may include, but are not limited to treatment requirements, operating procedures, or practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

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.

Biosolids
Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 C.F.R. Part 503.

Carcinogenic
Pollutants are substances that are known to cause cancer in living organisms.

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

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Composite Sample, 24-hour
For flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurements:

a. No fewer than eight individual sample portions taken at equal time intervals for 24 hours. The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,

b. No fewer than eight individual sample portions taken of equal time volume taken over a 24-hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

The compositing period shall equal 24 hours.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

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

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

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

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

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

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

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

Dilution Credit
Dilution Credit is 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.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

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

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

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

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

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, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Grab Sample
An individual sample collected during a period of time not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

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

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

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

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act

together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

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

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

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

In-stream Waste Concentration (IWC)
The concentration of a toxicant or the parameter toxicity in the receiving water after mixing.

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

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

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

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, 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.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the n/2 and n/2+1).

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 CFR part 136, Attachment B.

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

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

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

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

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

PCBs (polychlorinated biphenyls) as Aroclors
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 as Congeners
The sum of the following 41 individually quantified PCB congeners or mixtures of isomers of a single congener in a co-elution: PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Phenolic Compounds (chlorinated)
The sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

Phenolic Compounds (non-chlorinated)
The sum of 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and phenol.

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention

measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in CWC section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board), Regional Water Board, or USEPA.

Publicly Owned Treatment Works
A treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality which has jurisdiction over the Indirect Discharges to and the discharges from such treatment works. (40 CFR § 403.3(q).)

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

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

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

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$
where:
x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

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

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

Test of Significant Toxicity (TST)
A statistical approach used to analyze toxicity test data. The TST incorporates a restated null hypothesis, Welch's t-test, and the biological effect thresholds for chronic and acute toxicity.

Toxicity Identification Evaluation (TIE)
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.

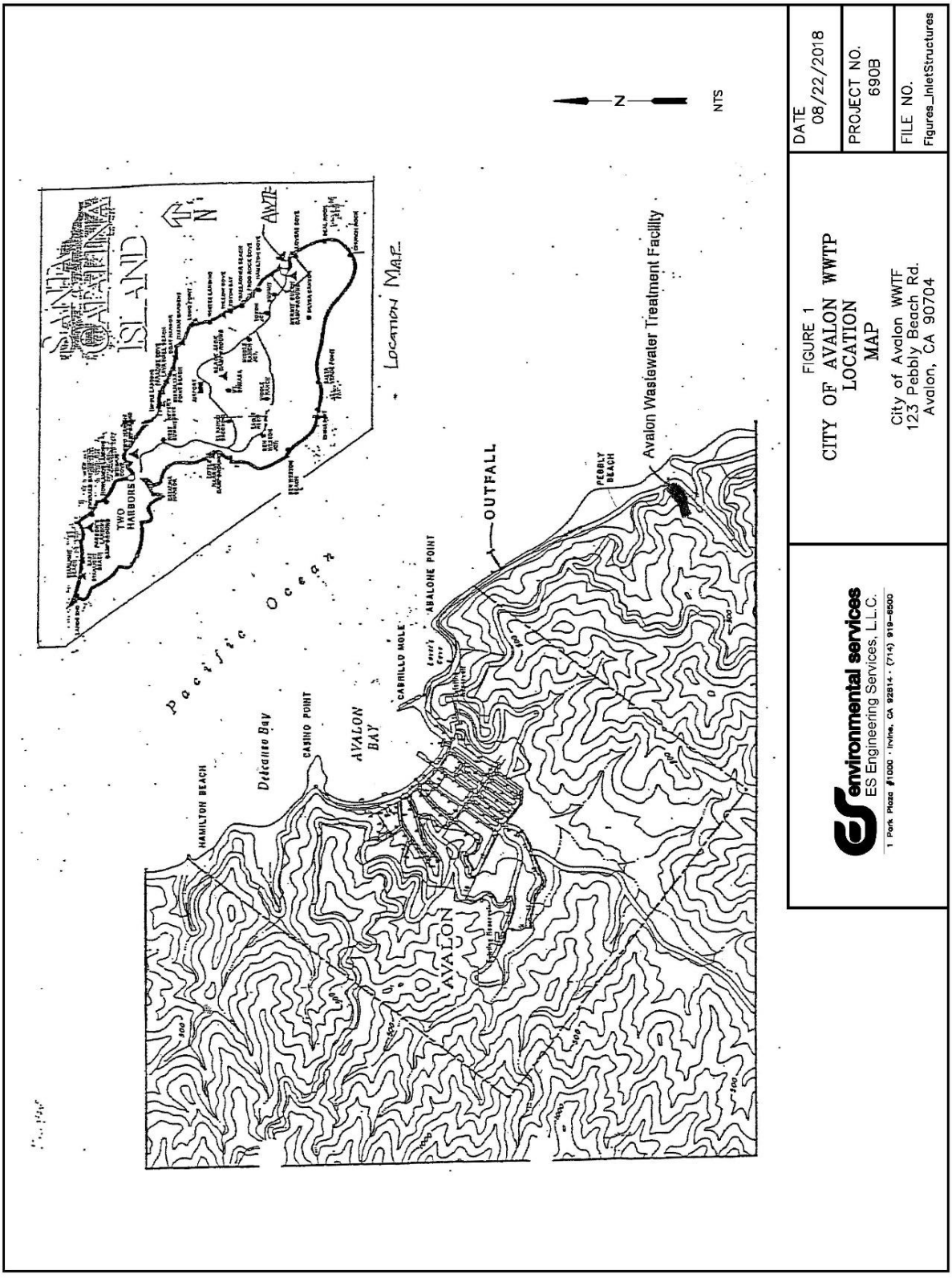
Toxicity Reduction Evaluation (TRE)
A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate.

Trash
All improperly discarded solid material from any production, manufacturing, or processing operation including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or synthetic natural materials. (As defined in the "Water Quality Control Plan, Ocean Waters of California" [California Ocean Plan]).

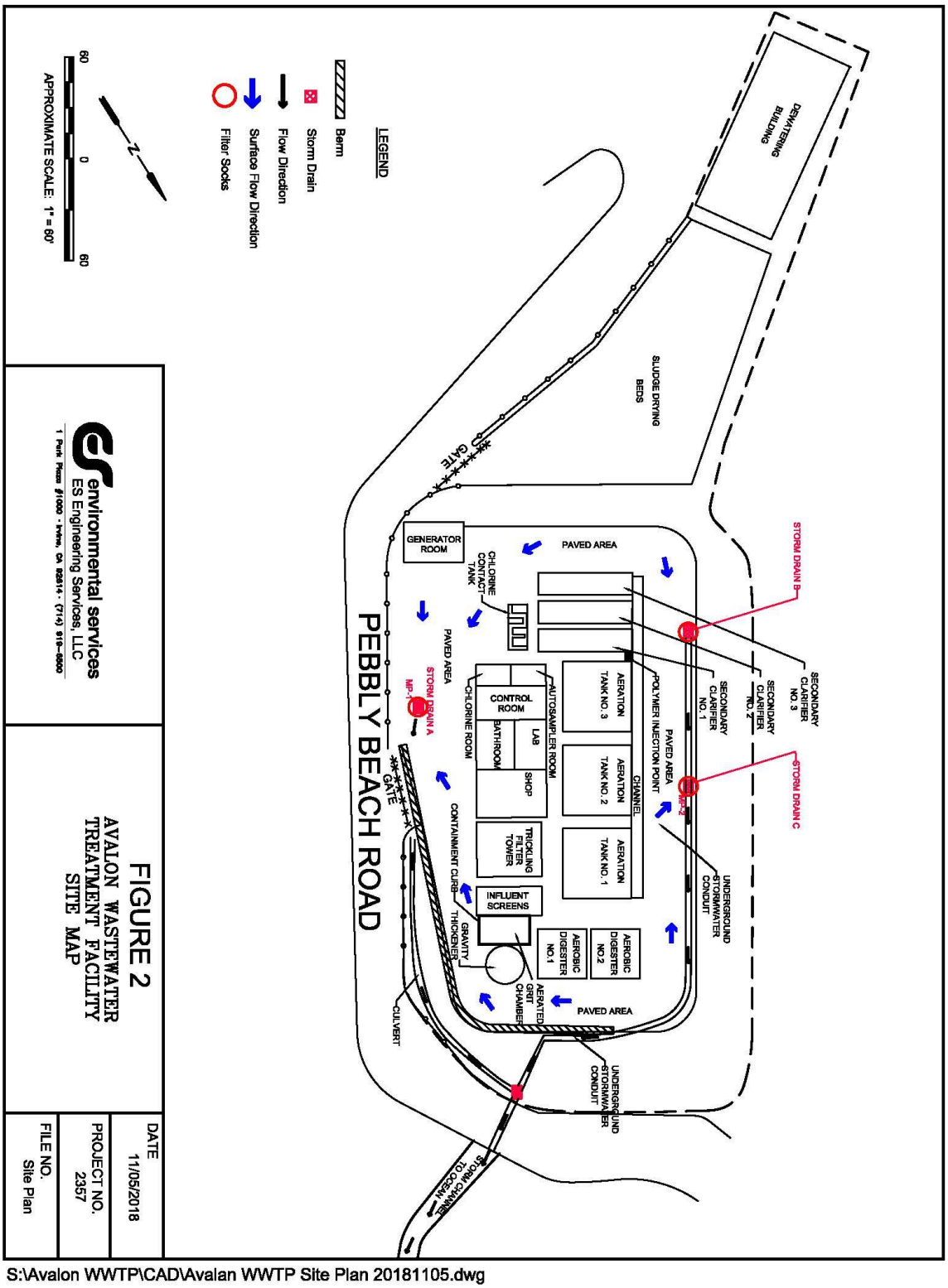
Waste
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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 B1 – MAP OF CITY OF AVALON AND SURROUNDING AREA



ATTACHMENT B2 – SITE LAYOUT OF THE AVALON WWTF



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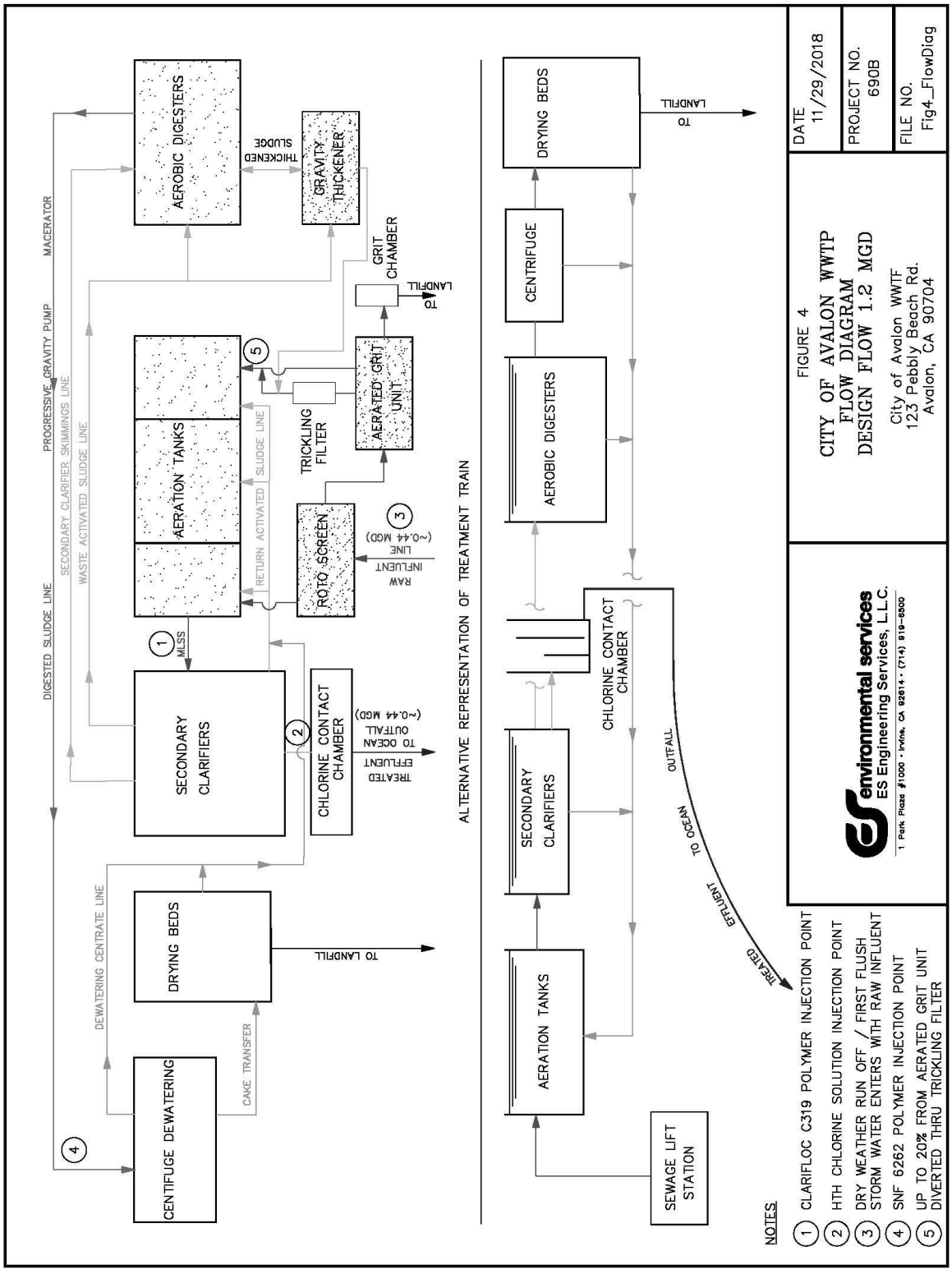
ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 CFR § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

D. Proper Operation and Maintenance

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

E. Property Rights

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

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be

required by law, to (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions

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

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2).)

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

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

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

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

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three

conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii).)

5. Notice

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

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

H. Upset

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

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

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

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

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

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

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

3. **Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR 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 CFR part 136 or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3),122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 CFR § 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR § 122.22(a)(3).).
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));
    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus

be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

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

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

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

C. Monitoring Reports

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

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR 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 Regional Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

   As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Regional Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Regional 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 CFR § 122.41(l)(6)(i).)

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

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

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

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

F. Planned Changes

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

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 CFR part 127. The Regional 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 CFR § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA 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 CFR section 127.2(c)]. USEPA will update and maintain this listing.
(40 CFR § 122.41(l)(9).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who *knowingly* violates section 301, 302, 303, 306,

307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions (40 CFR § 122.41(a)(2); CWC section 13385 and 13387).

C. Any person may be assessed an administrative penalty by the Administrator of USEPA, or an administrative civil liability by the Regional Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. (40 CFR § 122.41(a)(3).)

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or imprisonment of not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both. (40 CFR § 122.41(j)(5).)

E. The CWA provides that any person who knowingly makes a false statement, representation, or certification, in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or both (40 CFR § 122.41(k)(2).)

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

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

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 CFR § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly influent and effluent analyses shall be performed during the first quarter (January, February, and March), the second quarter (April, May, and June), the third quarter (July, August, and September), and the fourth quarter (October, November, and December). Semiannual influent and effluent analyses shall be performed during the first quarter (January, February, and March) and third quarter (July, August, and September). Annual analyses shall be performed during the third quarter (July, August, and September). Should there be instances when monitoring could not be performed during these specified months, the Discharger must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported by the due date specified in Table E-8 of the MRP.

B. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Resources Control Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Regional Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.

C. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All QA/QC analyses must be run on the same dates that samples are analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit this documentation when requested by the Regional Water Board. Proper chain of custody procedures must be followed, and a copy of this documentation shall be submitted with the monthly report.

D. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to ensure accuracy of measurements or shall ensure that both equipment activities will be conducted.

E. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed, and method or procedure used must be specified in the monitoring report.

F. Each monitoring report must affirm in writing, “all analyses were conducted at a laboratory certified for such analyses under the ELAP, or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this monitoring and reporting program.”

G. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable Minimum Level (ML) or Reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Board in appendix II of the ~~2015~~ Ocean Plan. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the analytical method for dilution or concentration of samples, other factors are applied to the ML depending on the sample preparation. The resulting value is the reported Minimum Level.

H. The Discharger shall select the analytical method that provides an ML lower than the effluent limitation or performance goal established for a given parameter or where no such requirement exists, the lowest applicable water quality objective in the Ocean Plan. If the effluent limitation, performance goal, or the lowest applicable water quality objective is lower than all the MLs in Appendix II of the ~~2015~~ Ocean Plan, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the annual summary reports a list of the analytical methods and MLs employed for each test.

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

J. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the Waste Discharge Requirements (WDRs) of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.

K. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with limitations set forth in this Order.

L. For all bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliforms, at a minimum; and 1 to 1000 per 100 mL for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR § 136.

2. Detection methods for *E. coli* shall be those presented in Table 1A of 40 CFR § 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for* Escherichia coli *and* Enterococci *in Water By Membrane Filter Procedure*, or any improved method determined by the Regional Water Board and USEPA to be appropriate.

M. All receiving and ambient water monitoring conducted in compliance with the MRP must be consistent with the Quality Assurance requirements of the Surface Water Ambient Monitoring Program (SWAMP).

N. NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the status of important ecological resources in the water body. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the near shore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.

O. The Regional Water Board and USEPA, working with other groups, have developed a comprehensive basis for effluent and receiving water monitoring appropriate to large publicly owned treatment works (POTWs) discharging to waters of the Southern California Bight. This effort has culminated in the publication by the Southern California Coastal Water Research Project (SCCWRP) of the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.B. Weisberg. 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep. #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). This guidance provides the principles, framework and recommended design for effluent and receiving water monitoring elements that have guided development of the monitoring program described below.

P. The conceptual framework for the Model Monitoring Program has three components that comprise a range of spatial and temporal scales: (1) core monitoring; (2) regional monitoring; and (3) special studies.

1. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as some aspects of receiving water monitoring. In the monitoring program described below, these core components are typically referred to as local monitoring.

2. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations and is not specified in this Order. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this Order, the levels of effort are based on the Discharger's past participation in regional monitoring programs.

   The Discharger shall participate in regional monitoring activities coordinated by SCCWRP or any other appropriate agency approved by the Regional Water Board. The procedures and timelines for Regional Water Board approval shall be the same as described below for special studies.

3. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes around the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

   POTW ocean dischargers in the Los Angeles region are normally required to consult annually to determine the need for special studies but the City of Avalon is exempt from this requirement due to the Avalon WWTF's low design flow rate.

Q. Central Bight Water Quality Cooperative Program

Coordinated water quality monitoring is conducted quarterly by the Orange County Sanitation District, Los Angeles County Sanitation Districts, and the City of Los Angeles. These integrated water quality surveys cover more than 200 kilometers of coast from the nearshore zone to approximately ten kilometers offshore. This cooperative program contributes to a regional understanding of seasonal patterns in nearshore water column structure and provides context for determining the significance and causes of locally observed water quality characteristics around wastewater outfalls.

At this time, the Central Bight Water Quality Cooperative Program does not include monitoring around Santa Catalina Island. If such a component is added to the regional monitoring program, the City of Avalon shall join the program and work cooperatively with other participants to conduct integrated water quality monitoring

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

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

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

T. This monitoring program for the Avalon Wastewater Treatment Plant consists of requirements to demonstrate compliance with the conditions of the NPDES permit, ensure compliance with State water quality standards, and mandate participation in regional monitoring and/or area-wide studies.

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Influent Monitoring Station		
--	**INF-001**	The influent monitoring location shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained. Influent samples shall be collected on the same day effluent samples are collected. Latitude: 33.332222° Longitude: -118.310278°
Effluent Monitoring Station		
001	**EFF-001**	The effluent monitoring location shall be located downstream of any in-plant return flows and before entering the outfall pipe where representative samples of the effluent can be obtained. Latitude: 33.3386° Longitude: -118.3111°
Receiving Water Monitoring Stations		
--	**RSW-001**	Abalone Point within 100 feet of the mean lower low water line. Latitude: 33.3437° Longitude: -118.3169°
--	**RSW-002**	At a point directly over the terminus of the ocean outfall. Latitude: 33.3386° Longitude: -118.3111°
--	**RSW-003**	Pebbly Beach at a point in the surf approximately 800 feet southeasterly of the ocean outfall, as measured along the shore, and within 50 feet of the mean lower low water line. Latitude: 33.3369° Longitude: -118.3105°
--	**RSW-004**	Pebbly Beach at a point near the desalination plant infiltration well and within 50 feet of the mean lower low water line. Latitude: 33.3339° Longitude: -118.3096°
--	**RSW-005**	Control Station at a point 1,000 feet southeast of the outfall terminus, 400 feet offshore on the 125-foot depth contour. Latitude: 33.3320° Longitude: -118.~~3140~~3072°
--	**RSW-006**	Pebbly Beach at a point approximately halfway between RSW-001 and RSW-002, and within 200 feet of the mean lower low water line. Latitude: 33.3413° Longitude: -118.3140°
Bottom Sediment Monitoring Stations		
--	**BOT-001**	Adjacent to the outfall terminus. Latitude: 33.3386° Longitude: -118.3111°
--	**BOT-002**	50 feet up-current of the discharge along the isobath which intersects the outfall terminus. Latitude: 33.3387° Longitude: -118.3112°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	**BOT-003**	50 feet down-current of the discharge along the isobath which intersects the outfall terminus. Latitude: 33.3385° Longitude: -118.3110°
--	**BOT-004**	100 feet up-current of the discharge along the isobath which intersects the outfall terminus. Latitude: 33.3384° Longitude: -118.3109°
--	**BOT-005**	1,000 feet down-current of the discharge along the isobath which intersects the outfall terminus (Station BOT-005 may be collected at a point 500 feet down-current of the discharge, if necessary to remain on soft bottom habitat). Latitude: 33.3365° Longitude: -118.3092°
--	**BOT-006**	1,000 feet up-current of the discharge along the isobath which intersects the outfall terminus. Latitude: 33.3408° Longitude: -118.3127°

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

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to determine compliance with NPDES permit conditions and to assess treatment plant performance.

A. Monitoring Location INF-001

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

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Flow	mgd	Recorder/totalizer	Continuous[2]	[3]
pH	pH Units	Grab	Weekly	[3]
Total Suspended Solids (TSS)	mg/L	24-hour composite	Weekly	[3]
BOD_5 20°C	mg/L	24-hour composite	Weekly	[3]

[1] Weekly and monthly sampling shall be arranged so that each day of the week is represented over a seven week or month period, except Saturday and Sunday. The schedule should be repeated every seven weeks or months.

[2] When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported, (not design capacity).

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, those methods shall be approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Oil and Grease	mg/L	Grab[4]	Monthly	[3]
Total Organic Carbon	mg/L	24-hour composite	Monthly	[3]
Arsenic	µg/L	24-hour composite	Annually	[3]
Cadmium	µg/L	24-hour composite	Annually	[3]
Chromium VI[5]	µg/L	Grab	Annually	[3]
Copper	µg/L	24-hour composite	Annually	[3]
Lead	µg/L	24-hour composite	Annually	[3]
Mercury	µg/L	24-hour composite	Annually	[6]
Nickel	µg/L	24-hour composite	Annually	[3]
Selenium	µg/L	24-hour composite	Annually	[3]
Silver	µg/L	24-hour composite	Annually	[3]
Zinc	µg/L	24-hour composite	Annually	[3]
Cyanide	µg/L	Grab	Annually	[3]
Phenolic Compounds (non-chlorinated)[7]	µg/L	24-hour composite	Annually	[3]
Phenolic Compounds (chlorinated)[7]	µg/L	24-hour composite	Annually	[3]
Endosulfan[7]	µg/L	24-hour composite	Annually	[3]
Endrin	µg/L	24-hour composite	Annually	[3]
Hexachlorocyclohexane (HCH)[7]	µg/L	24-hour composite	Annually	[3]
Radioactivity (including gross alpha, gross, beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hour composite	Annually	[8]
Acrolein	µg/L	Grab	Annually	[3]
Antimony	µg/L	24-hour composite	Annually	[3]
Bis(2-chloroethoxy) methane	µg/L	24-hour composite	Annually	[3]

[4] Oil and grease monitoring shall consist of a single grab sample at peak flow over a 24-hour period.

[5] The Discharger may, at its option, meet the hexavalent chromium limitation by analyzing for total chromium rather than hexavalent chromium.

[6] USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1631E.

[7] See Attachment A for definition of terms.

[8] Analyze these radiochemicals by the following USEPA methods: method 900.0 (or standard method 7110 if there is interference due to high dissolved solids in the sample) for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha or gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds 5.0 pCi/L, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Bis(2-chloroisopropyl) ether	µg/L	24-hour composite	Annually	[3]
Chlorobenzene	µg/L	Grab	Annually	[3]
Chromium (III)	µg/L	Grab	Annually	[3]
Di-n-butyl phthalate	µg/L	24-hour composite	Annually	[3]
Dichlorobenzenes[7]	µg/L	24-hour composite	Annually	[3]
Diethyl phthalate	µg/L	24-hour composite	Annually	[3]
Dimethyl phthalate	µg/L	24-hour composite	Annually	[3]
4,6-dinitro-2-methylphenol	µg/L	24-hour composite	Annually	[3]
2,4-dinitrophenol	µg/L	24-hour composite	Annually	[3]
Ethylbenzene	µg/L	Grab	Annually	[3]
Fluoranthene	µg/L	24-hour composite	Annually	[3]
Hexachlorocyclo-pentadiene	µg/L	24-hour composite	Annually	[3]
Nitrobenzene	µg/L	24-hour composite	Annually	[3]
Thallium	µg/L	24-hour composite	Annually	[3]
Toluene	µg/L	Grab	Annually	[3]
Tributyltin	µ~~n~~g/L	24-hour composite	Annually	[3]
1,1,1-Trichloroethane	µg/L	Grab	Annually	[3]
Acrylonitrile	µg/L	Grab	Annually	[3]
Aldrin	µg/L	24-hour composite	Annually	[3]
Benzene	µg/L	Grab	Annually	[3]
Benzidine	µg/L	24-hour composite	Annually	[3]
Beryllium	µg/L	24-hour composite	Annually	[3]
Bis(2-chloroethyl) ether	µg/L	24-hour composite	Annually	[3]
Bis(2-ethylhexyl) phthalate	µg/L	24-hour composite	Annually	[3]
Carbon tetrachloride	µg/L	Grab	Annually	[3]
Chlordane[7]	µg/L	24-hour composite	Annually	[3]
Chlorodibromomethane	µg/L	Grab	Annually	[3]
Chloroform	µg/L	Grab	Annually	[3]
DDT[7]	µg/L	24-hour composite	Annually	[3]
1,4-dichlorobenzene	µg/L	24-hour composite	Annually	[3]
3,3'-dichlorobenzidine	µg/L	24-hour composite	Annually	[3]
1,2-Dichloroethane	µg/L	Grab	Annually	[3]
1,1-Dichloroethylene	µg/L	Grab	Annually	[3]
Dichlorobromomethane	µg/L	Grab	Annually	[3]
Dichloromethane	µg/L	Grab	Annually	[3]
1,3-Dichloropropene	µg/L	Grab	Annually	[3]
Dieldrin	µg/L	24-hour composite	Annually	[3]
2,4-dinitrotoluene	µg/L	24-hour composite	Annually	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
1,2-diphenylhydrazine	µg/L	24-hour composite	Annually	3
Halomethanes[7]	µg/L	Grab	Annually	3
Heptachlor	µg/L	24-hour composite	Annually	3
Heptachlor epoxide	µg/L	24-hour composite	Annually	3
Hexachlorobenzene	µg/L	24-hour composite	Annually	3
Hexachlorobutadiene	µg/L	24-hour composite	Annually	3
Hexachloroethane	µg/L	24-hour composite	Annually	3
Isophorone	µg/L	24-hour composite	Annually	3
N-Nitrosodimethylamine	µg/L	24-hour composite	Annually	3
N-Nitrosodi-n-propylamine	µg/L	24-hour composite	Annually	3
N-Nitrosodiphenylamine	µg/L	24-hour composite	Annually	3
Polycyclic Aromatic Hydrocarbons (PAHs)[7]	µg/L	24-hour composite	Annually	3
Polychlorinated Biphenyls (PCBs) as Aroclors[7]	µg/L	24-hour composite	Annually	3
TCDD Equivalents[7]	pg/L	24-hour composite	Annually	9
1,1,2,2-Tetrachloroethane	µg/L	Grab	Annually	3
Tetrachloroethylene	µg/L	Grab	Annually	3
Toxaphene	µg/L	24-hour composite	Annually	3
Trichloroethylene	µg/L	Grab	Annually	3
1,1,2-Trichloroethane	µg/L	Grab	Annually	3
2,4,6-Trichlorophenol	µg/L	24-hour composite	Annually	3
Vinyl chloride	µg/L	Grab	Annually	3

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to determine compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions and water quality standards; assess and improve plant performance and identify operational problems; provide information on wastewater characteristics and flows for use in interpreting water quality and biological data; and to conduct reasonable potential analyses for toxic pollutants.

A. Monitoring Location EFF-001

1. The Discharger shall monitor effluent at EFF-001 as follows. 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:

[9] USEPA Method 1613 shall be used to analyze TCDD equivalents. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1613.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type[10]	Minimum Sampling Frequency[11]	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	mgd	Recorder/ totalizer	Continuous[12]	[13]
BOD_5 20°C	mg/L	24-hour composite	5 days/week	[13]
TSS	mg/L	24-hour composite	5 days/week	[13]
pH	Standard units	Grab	Monthly	[13]
Oil and Grease	mg/L	Grab[14]	Monthly	[13]
Temperature	°F	Grab	Monthly	[13]
Settleable Solids	mL/L	Grab[14]	Monthly	[13]
Dissolved Oxygen	mg/L	Grab	Monthly	[13]
Turbidity	NTU	24-hour composite	Weekly	[13]
Total Dissolved Solids	mg/L	24-hour composite	Monthly	[13]
Total Coliform	CFU/ 100mL or MPN/ 100mL	Grab	Weekly	[13]
Fecal Coliform	CFU/ 100mL or MPN/ 100mL	Grab	Weekly	[13]

[10] For 24-hour composite samples, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted samples shall be obtained during the discharge period and composited. For discharge durations of less than eight hours, individual grab samples may be substituted. A grab sample is an individual sample collected in less than 15 minutes.

[11] Weekly and monthly sampling shall be arranged so that each day of the week is represented over a seven week or month period, except Saturday and Sunday. The schedule should be repeated every seven weeks or months.

[12] When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported (not design capacity).

[13] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, those methods shall be approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

[14] Oil and grease, and settleable solids monitoring shall consist of a single grab sample at peak flow over a 24-hour period.

Parameter	Units	Sample Type[10]	Minimum Sampling Frequency[11]	Required Analytical Test Method and (Minimum Level, units), respectively
Enterococcus	CFU/ 100mL or MPN/ 100mL	Grab	Weekly	[13]
Total Organic Carbon	mg/L	24-hour composite	Monthly	[13]
Nitrate Nitrogen	mg/L	24-hour composite	Quarterly	[13]
Organic Nitrogen	mg/L	24-hour composite	Quarterly	[13]
Total Phosphorus	mg/L	24-hour composite	Quarterly	[13]
Arsenic	µg/L	24-hour composite	Quarterly	[13]
Cadmium	µg/L	24-hour composite	Quarterly	[13]
Chromium (VI)	µg/L	Grab	Semiannually	[13]
Copper	µg/L	24-hour composite	Quarterly	[13]
Lead	µg/L	24-hour composite	Quarterly	[13]
Mercury	µg/L	24-hour composite	Quarterly	[15]
Nickel	µg/L	24-hour composite	Quarterly	[13]
Selenium	µg/L	24-hour composite	Quarterly	[13]
Silver	µg/L	24-hour composite	Quarterly	[13]
Zinc	µg/L	24-hour composite	Quarterly	[13]
Cyanide	µmg/L	Grab	Quarterly	[13]
Total Chlorine Residual	µg/L	Grab	5 days/week	[13]
Ammonia Nitrogen	mg/L	24-hour composite	Quarterly	[13]
Toxicity, Chronic	Pass or Fail (TST) % Effect	24-hour composite	Quarterly	[13]
Phenolic compounds (non-chlorinated)[16]	µg/L	24-hour composite	Semiannually	[13]

[15] USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1631E.

[16] See Attachment A for definition of terms.

Parameter	Units	Sample Type[10]	Minimum Sampling Frequency[11]	Required Analytical Test Method and (Minimum Level, units), respectively
Phenolic compounds (chlorinated)[16]	µg/L	24-hour composite	Semiannually	[13]
Endosulfan[16]	µg/L	24-hour composite	Semiannually	[13]
Endrin	µg/L	24-hour composite	Semiannually	[13]
HCH[16]	µg/L	24-hour composite	Semiannually	[13]
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hr composite	~~Quarterly~~Semiannually	[17]
Acrolein	µg/L	Grab	Semiannually	[13]
Antimony	µg/L	24-hour composite	Semiannually	[13]
Bis(2-chloroethoxy) methane	µg/L	24-hour composite	Semiannually	[13]
Bis(2-chloroisopropyl) ether	µg/L	24-hour composite	Semiannually	[13]
Chlorobenzene	µg/L	Grab	Semiannually	[13]
Chromium (III)	µg/L	Grab	Semiannually	[13]
Di-n-butyl phthalate	µg/L	24-hour composite	Semiannually	[13]
Dichlorobenzenes[16]	µg/L	24-hour composite	Semiannually	[13]
Diethyl Phthalate	µg/L	24-hour composite	Semiannually	[13]
Dimethyl Phthalate	µg/L	24-hour composite	Semiannually	[13]
4,6-dinitro-2-methylphenol	µg/L	24-hour composite	Semiannually	[13]
2,4-dinitrophenol	µg/L	24-hour composite	Semiannually	[13]
Ethylbenzene	µg/L	Grab	Semiannually	[13]
Fluoranthene	µg/L	24-hour composite	Semiannually	[13]

[17] Analyze these radiochemicals by the following USEPA methods: method 900.0 (or standard method 7110 if there is interference due to high dissolved solids in the sample) for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha or gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds 5.0 pCi/L, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type[10]	Minimum Sampling Frequency[11]	Required Analytical Test Method and (Minimum Level, units), respectively
Hexachlorocyclo-pentadiene	µg/L	24-hour composite	Semiannually	[13]
Nitrobenzene	µg/L	24-hour composite	Semiannually	[13]
Thallium	µg/L	24-hour composite	Semiannually	[13]
Toluene	µg/L	Grab	Semiannually	[13]
Tributyltin	µng/L	24-hour composite	Semiannually	[13]
1,1,1-Trichloroethane	µg/L	Grab	Semiannually	[13]
Acrylonitrile	µg/L	Grab	Semiannually	[13]
Aldrin	µg/L	24-hour composite	Semiannually	[13]
Benzene	µg/L	Grab	Semiannually	[13]
Benzidine	µg/L	24-hour composite	Semiannually	[13]
Beryllium	µg/L	24-hour composite	Semiannually	[13]
Bis(2-chloroethyl) ether	µg/L	24-hour composite	Semiannually	[13]
Bis(2-ethylhexyl) phthalate	µg/L	24-hour composite	Quarterly	[13]
Carbon Tetrachloride	µg/L	Grab	Semiannually	[13]
Chlordane[16]	µg/L	24-hour composite	Semiannually	[13]
Chlorodibromomethane	µg/L	Grab	Semiannually	[13]
Chloroform	µg/L	Grab	Semiannually	[13]
DDT[16]	µg/L	24-hour composite	Semiannually	[13]
1,4-dichlorobenzene	µg/L	24-hour composite	Semiannually	[13]
3,3'-dichlorobenzidine	µg/L	24-hour composite	Semiannually	[13]
1,2-dichloroethane	µg/L	Grab	Semiannually	[13]
1,1-dichloroethylene	µg/L	Grab	Semiannually	[13]
Dichlorobromomethane	µg/L	Grab	Semiannually	[13]
Dichloromethane	µg/L	Grab	Semiannually	[13]
1,3-Dichloropropene	µg/L	Grab	Semiannually	[13]
Dieldrin	µg/L	24-hour composite	Semiannually	[13]
2,4-dinitrotoluene	µg/L	24-hour composite	Semiannually	[13]
1,2-diphenylhydrazine	µg/L	24-hour composite	Semiannually	[13]
Halomethanes[16]	µg/L	Grab	Semiannually	[13]

Parameter	Units	Sample Type[10]	Minimum Sampling Frequency[11]	Required Analytical Test Method and (Minimum Level, units), respectively
Heptachlor	µg/L	24-hour composite	Semiannually	[13]
Heptachlor Epoxide	µg/L	24-hour composite	Semiannually	[13]
Hexachlorobenzene	µg/L	24-hour composite	Semiannually	[13]
Hexachlorobutadiene	µg/L	24-hour composite	Semiannually	[13]
Hexachloroethane	µg/L	24-hour composite	Semiannually	[13]
Isophorone	µg/L	24-hour composite	Semiannually	[13]
N-Nitrosodimethylamine	µg/L	24-hour composite	Semiannually	[13]
N-Nitrosodi-n-propylamine	µg/L	24-hour composite	Semiannually	[13]
N-Nitrosodiphenylamine	µg/L	24-hour composite	Semiannually	[13]
PAHs[16]	µg/L	24-hour composite	Semiannually	[13]
PCBs as Aroclors[16]	µg/L	24-hour composite	Semiannually	[13]
TCDD Equivalents[16]	pg/L	24-hour composite	Monthly	[18]
1,1,2,2-Tetrachloroethane	µg/L	Grab	Semiannually	[13]
Tetrachloroethylene	µg/L	Grab	Semiannually	[13]
Toxaphene	µg/L	24-hour composite	Semiannually	[13]
Trichloroethylene	µg/L	Grab	Semiannually	[13]
1,1,2-Trichloroethane	µg/L	Grab	Semiannually	[13]
2,4,6-Trichlorophenol	µg/L	24-hour composite	Semiannually	[13]
Vinyl chloride	µg/L	Grab	Semiannually	[13]
Methyl-tert-butyl-ether	µg/L	Grab	Semiannually	[13]

[18] USEPA Method 1613 shall be used to analyze TCDD equivalents. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1613.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

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

   The chronic IWC is the concentration of a pollutant or the parameter toxicity in the receiving water after mixing. The chronic toxicity IWC for Discharge Point 001 is 1.64% effluent.

2. Sample Volume and Holding Time

   The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected during accelerated monitoring for subsequent Toxicity Identification Evaluation (TIE) studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation**.**

3. Chronic Marine Species and Test Methods

   If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the in-stream waste concentration for the discharge, in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

   a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).

   b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).

   c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

4. Species Sensitivity Screening

   Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Atherinops affinis*, a second and third sample must be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at

the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required.

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the discharge is intermittent and occurs only during wet weather, rescreening is not required. If rescreening is necessary, the Discharger shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger may proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

5. Quality Assurance and Additional Requirements

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

a. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity statistical t-test approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1, and Appendix B, Table B-1. The null hypothesis (H_0) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations – in the case of a WET test, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995) (see Table E-8, below), then the Discharger must re-sample and re-test within 14 days.

Table E-4. USEPA Test Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Topsmelt, *Atherinops affinis*, Larval Survival and Growth Test Method 1006.01. (Table 3 of Test Method)	80% or greater survival in controls; 0.85 mg average dry weight per surviving organism in control

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
	chambers (9 day old); LC50 with copper must be ≤ 205 µg/L, <25% MSD for survival and <50% MSD for growth. If the test starts with 9-day old larvae, the mean weight per larva must exceed 0.85 milligrams in the reference and brine controls; the mean weight of preserved larvae must exceed 0.72 milligrams. (required)
Purple Sea Urchin, *Strongylocentrotus purpuratus*, and the Sand Dollar, *Dendraster excentricus,* Fertilization Test Method 1008.0 (Table 7 of Test Method)	70% or greater egg fertilization in controls, must achieve a MSD of <25%, and appropriate sperm counts. (required)
Red Abalone, *Haliotis rufescens*, Larval Shell Development Test Method (Table 3 of Test Method)	80% or greater normal shell development in the controls; must have statistically significant effect at 56 µg/L zinc and achieve a MSD of <20%. (required)
Giant Kelp, *Macrocystis pyrifera*, Germination and Growth Test Method 1009.0 (Table 3 of Test Method)	70% or greater germination in controls, ≥ 10 µm germ-tube length in controls, No Observed Effect Concentration (NOEC) must be below 35 µg/L in the reference toxicant test, and must achieve a MSD of <20% for both germination and germ-tube length in the reference toxicant. (required)

c. Dilution water and control water, including brine controls, shall be 1-µm-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC_{25}[19].

e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

[19] EC_{25} is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan

   The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or the most current version. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

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

   b. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,

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

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

   The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

   Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 5 calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two-week intervals, over an eight-week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC_{25}. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

8. Toxicity Reduction Evaluation (TRE) Process

   During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

   a. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 15 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall

include the following information, and comply with additional conditions set by the Executive Officer:

i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.

ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

iii. A schedule for these actions, progress reports, and the final report.

b. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

d. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, and shall include:

a. Test results shall be reported in percent survival for acute toxicity tests.

b. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-8.

c. Summary water quality measurements for each toxicity test (e.g. pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

d. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.

e. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

f. Statistical program (e.g. TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

g. Graphical plots clearly showing the laboratory's performance of the reference toxicant for the previous 20 tests and the laboratory's performance of the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.

h. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request of the Regional Water Board Chief Deputy Executive Officer or Executive Officer.

B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test.

   a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

   b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

   c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

   d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

Except with prior approval from the Executive Officer of the Regional Water Board, chlorine shall not be removed from bioassay samples.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

All receiving water stations shall be located by state-of-the-art navigational methods (e.g. DGPS); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations. All receiving water monitoring shall be conducted during daylight hours.

A. Nearshore/Offshore Water Quality Monitoring

1. This monitoring is designed to determine if the Ocean Plan and Basin Plan receiving water objectives are being met. Data collected provide the information necessary to demonstrate compliance with the standards.

2. The Discharger shall monitor receiving water quality at RSW-001, RSW-002, RSW-003, RSW-004, RSW-005, and RSW-006, as follows:

Table E-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	continuous profile[20]	Quarterly	[21]
Temperature	°C	continuous profile	Quarterly	[21]
Salinity	ppt	continuous profile	Quarterly	[21]
pH	pH Units	continuous profile	Quarterly	[21]
Residual Chlorine	µg/L	Grab at 0.5 meters below surface at RSW-002 only	Monthly	[21]
Visual Observations[22]	---	---	Monthly	---

Water quality methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic, and Trawl Monitoring in Southern California*. Data shall be analyzed to approximate the typical wastewater plume movement and data under different seasonal and weather conditions.

[20] Depth profile measurements shall be obtained using multiple sensors to measure parameters through the entire water column (from the surface to as close to the bottom as practicable).

[21] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

[22] Observations of wind speed and direction, weather, current direction, and tidal condition (high/low) shall be recorded at the time receiving water samples are collected. Receiving water observations of any discoloration, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks, jetties, or beach structures, shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times, and depths of sampling and these observations shall also be reported. Recreational use at time of sampling, within a 100-meter radius of each sample location, shall also be recorded and submitted with results. Recreational uses include, but are not limited to, swimming, wading, water-skiing, diving, surfing, and fishing.

B. Microbiological Monitoring Requirements

1. The Discharger shall monitor bacteria at RSW-001, RSW-002, RSW-004, and RSW-006 as follows:

Table E-6. Microbiological Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Coliform	MPN or CFU/100 mL	Grab at 0.5 meters below the surface	Monthly[23]	[24]
Fecal Coliform	MPN or CFU/100 mL	Grab at 0.5 meters below the surface	Monthly[23]	[24]
Enterococcus	MPN or CFU/100 mL	Grab at 0.5 meters below the surface	Monthly[23]	[24]

If the results for total coliform, fecal coliform, or *Enterococcus*, exceed the receiving water bacterial standards in a given month, the Discharger shall collect an additional four weekly samples to demonstrate compliance with the limits in the Order.

C. Benthic Infauna and Chemistry Monitoring Requirements

1. Local Benthic Trends Survey

This survey is designed to determine if benthic conditions under the influence of the discharge are changing over time. The data collected are used for regular assessment of trends in sediment contamination and biological response within the influence of the discharge.

Sampling Design - The Discharger shall monitor the six bottom sediment stations (BOT-001, BOT-002, BOT-003, BOT-004, BOT-005, and BOT-006) in July, as summarized in Table E-7. Separate samples shall be collected for benthic infauna and sediment chemistry. Sampling methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California* developed by the Southern California Bight Field Methods Committee.

Table E-7. Benthic Infauna and Chemistry Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Benthic Infauna community	--	Diver-operated sampler	Annually	[25]

[23] In addition to reporting the actual concentration, the running median of the last 6-month period shall be reported each month. Bacterial data obtained at shoreline stations during or within 48 hours following a major storm event shall not be used to determine medians.

[24] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

[25] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Grain Size	Phi Size	Diver-operated sampler	Annually	[25]
Total Organic Carbon	mg/kg	Diver-operated sampler	Annually	[25]
Organic Nitrogen	mg/kg	Diver-operated sampler	Annually	[25]
Total Kjeldahl Nitrogen	mg/kg	Diver-operated sampler	Biennially	[25]
Dissolved sulfides	mg/kg	Diver-operated sampler	Biennially	[25]
Arsenic	mg/kg	Diver-operated sampler	Biennially	[25]
Cadmium	mg/kg	Diver-operated sampler	Biennially	[25]
Total Chromium	mg/kg	Diver-operated sampler	Biennially	[25]
Copper	mg/kg	Diver-operated sampler	Biennially	[25]
Lead	mg/kg	Diver-operated sampler	Biennially	[25]
Mercury	mg/kg	Diver-operated sampler	Biennially	[25]
Nickel	mg/kg	Diver-operated sampler	Biennially	[25]
Silver	mg/kg	Diver-operated sampler	Biennially	[25]
Zinc	mg/kg	Diver-operated sampler	Biennially	[25]
Cyanide	mg/kg	Diver-operated sampler	Biennially	[25]
Phenolic Compounds (non-chlorinated) [26]	µg/kg	Diver-operated sampler	Biennially	[25]
Phenolic Compounds (chlorinated)[26]	µg/kg	Diver-operated sampler	Biennially	[25]
Total Halogenated Organic Compounds	µg/kg	Diver-operated sampler	Biennially	[25]
Aldrin	µg/kg	Diver-operated sampler	Biennially	[25]
Dieldrin	µg/kg	Diver-operated sampler	Biennially	[25]
Endrin	µg/kg	Diver-operated sampler	Biennially	[25]
HCH[26]	µg/kg	Diver-operated sampler	Biennially	[25]
Chlordane[26]	µg/kg	Diver-operated sampler	Biennially	[25]

[26] See Attachment A for definitions of terms.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
DDT[26]	µg/kg	Diver-operated sampler	Biennially	[25]
PCBs as Aroclors[26]	µg/kg	Diver-operated sampler	Biennially	[25]
PAH[26]	µg/kg	Diver-operated sampler	Biennially	[25]
Toxaphene	µg/kg	Diver-operated sampler	Biennially	[25]

a. Infaunal Community Survey - Benthic Infauna monitoring shall be conducted annually in July. One sample shall be collected at each bottom station for benthic infaunal community analysis[27]. Bottom samples for benthic infaunal analyses shall be collected at each benthic station prior to trawl sampling. Bottom samples shall be collected using a diver-operated sampler. The entire contents of each sample shall be passed through a 1.0-millimeter (0.039-inch) mesh screen to retrieve the benthic organisms. These organisms shall be fixed win 10% buffered formalin and transferred to 70% ethanol within two to seven days for storage. Organisms may be strained with Rose Bengalto to facilitate sorting. All specimens received shall be archived.

For benthic infauna community analysis, the following determinations shall be made at each station, where appropriate: Identification of all organisms to the lowest possible taxon based on morphological taxonomy, community analysis[26], mean, range, standard deviation, and 95% confidence limits, if appropriate, for value determined in the community analysis. The Discharger shall conduct additional statistical analyses to determine temporal and spatial trends in the marine environment.

b. Sediment Chemistry Analysis – Sediment chemistry monitoring shall be conducted every two years in July. A separate grab sample for sediment chemistry analyses shall be collected at each station when a biological sample is collected. Subsamples (upper two centimeters) shall be collected from the grab for the sediment chemistry analyses. Bottom samples for sediment chemistry analyses shall be collected at each bottom station (BOT-001, BOT-002, BOT-003, BOT-004, BOT-005, and BOT-006) along the isobath which intersect the outfall terminus using a diver operated sampler. Subsamples (upper two centimeters) of sediment from each sample shall be collected and analyzed separately as summarized in Table E-7.

2. Regional Benthic Survey

This regional survey is designed to determine 1) the extent, distribution, magnitude, and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight and 2) the relationship between biological response and contaminant exposure.

[27] Community analysis of benthic infauna shall include the number of species, the number of individuals per species, the total numerical abundance per station, the benthic response index (BRI) and biological indices, plus the analysis shall utilize appropriate regression analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques.

The data collected will be used to assess the condition of the seafloor environment and the health of biological communities.

Sampling Design – A regional survey of benthic conditions within the Southern California Bight took place in 2018 (Bight '18). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee. The Discharger provided support to the Bight '18 benthic survey by participating in or performing the following activities:

a. Participation on the Steering Committee;

b. Participation on relevant Technical Committees (e.g. Information management, Field Methods &Logistics, Benthos, and Chemistry);

c. Field sampling at sea;

d. Infaunal sample analysis

e. Sediment chemistry analysis; and,

f. Data management.

Regular regional monitoring for the Southern California Bight has been established, occurring every four to five years, and coordinated through SCCWRP with dischargers and numerous other entities. ~~During the last permit cycle, the City of Avalon was required to contribute $25,000 to each Bight regional survey.~~ The City of Avalon shall participate in and contribute ~~$25,000~~resources to the next Bight regional survey and subsequent surveys~~ or may elect to redirect existing monitoring efforts toward collection and analysis of samples for the regional monitoring survey. Redirection of existing monitoring shall be subject to Executive Officer approval.~~ .

While participation in regional programs is required under this Order, the Discharger may submit a request to the Regional Water Board to make temporary revisions to the Discharger's monitoring program~~ at the direction of the Regional Water Board may be necessary~~ to accomplish the goals of regional monitoring programs. These revisions may include a reduction or increase in the number of parameters being monitored, the frequency of monitoring, or the number and size of samples being collected. ~~The Discharger shall submit a request to the Regional Water Board for any temporary modification to the monitoring program to support regional monitoring efforts. Such changes~~Any temporary modifications to the Discharger's monitoring program to support regional monitoring efforts are subject to Executive Officer approval.

~~**D.** Kelp Bed Monitoring~~

~~This regional survey is designed to determine the extent to which the kelp beds in the Southern California Bight are changing over time and if any kelp beds are changing at rates different than others. The Regional Water Board helped establish the Central Region Kelp Survey Consortium to monitor kelp beds throughout the region. This program is designed to require ocean dischargers in the Regional Water Board's jurisdiction to develop a collaborative program to monitor kelp beds in the Sothern California Bight, modelled after a successful program implemented by the San Diego Regional Water Board since 1985. Data collected in this regional survey will be used to assess the status and spatial extent of the kelp beds, and to determine any trends relating to kelp bed health. The regional nature of the survey will allow the status of beds local to specific dischargers to be compared to regional trends. The regional kelp monitoring survey was initiated in 2003.~~

~~The Central Region Kelp Survey does not currently include monitoring of kelp beds around Santa Catalina Island. If such a component is added to the Kelp Monitoring Program, the City of Avalon shall join the Central Region Kelp Monitoring Consortium and contribute funding to the program (funding level is dependent on the number of participants in the consortium, but in no case shall exceed $10,000 per year).~~

IX. OTHER MONITORING REQUIREMENTS

A. Outfall and Diffuser Inspection

This survey is designed to ensure that the outfall structure is in serviceable condition and can continue to be operated safely. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

The entire ocean outfall shall be externally inspected annually during July or August. Inspections shall include general observations and photographic/video graphic records of the exterior outfall pipes and the adjacent ocean bottom. The outfall shall be examined for plugs, leaks, rotation, and flow distribution. A visual inspection at and near the outfall system shall be conducted to determine the thickness of any "cloud" of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. The pipes shall be visually inspected by a diver, manned submarine, or remotely operated vehicle. A summary report of the inspection findings shall be provided. This written report, augmented with video graphic and/or photographic images, will provide a description of the observed condition of the discharge pipes from shallow water to their respective termini. The final report shall be submitted to the Regional Water Board with the annual summary report on April 15.

B. Biosolids and Sludge Management

The Discharger shall comply with all Clean Water Act and regulatory requirements of 40 CFR § 257, 258, 501, and 503, including all applicable monitoring, recordkeeping, and reporting requirements.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction or maintenance activity, or modification to the POTW that could potentially affect compliance with applicable requirements.
5. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.
6. The pollutant mass discharged shall be reported in addition to the reported concentration for those pollutants with mass-based final effluent limitations.
7. The laboratory conducting analyses shall be certified by ELAP, in accordance with CWC section 13176, or approved by the Regional Water Board Executive Officer, in

consultation with the State Water Board's Quality Assurance Program, and USEPA for that parameter and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new/renewal certification is obtained from ELAP and must be submitted with the annual summary report. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board Division of Drinking Water or approved by the Regional Water Board Executive Officer (in consultation with the State Water Board's Quality Assurance Program) and USEPA, and in accordance with current USEPA guideline procedures or as specified in this MRP."

8. The actual depths and coordinates of the receiving water stations sampled shall also be reported.

9. Non-detect levels reported for Avalon WWTF's effluent are generally higher than effluent limitations or water quality objectives for DDT, chlordane, PCBs and PAHs. Therefore, the Discharger shall work toward achieving lower analytical detection levels than those specified in Appendix II of the 2015 Ocean Plan.

10. Upon request by the Discharger, the Regional Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the 2015 Ocean Plan, to be included in the Discharger's NPDES permit, in any of the following situations:

    a. When the pollutant under consideration is not included in Appendix II;

    b. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR § 136 (most recent revision);

    c. When the Discharger agrees to use an ML lower than those listed in Appendix II;

    d. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for their matrix; or

    e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, Regional Water Board, State Water Board and USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.

11. Records and reports of marine monitoring surveys conducted to meet receiving water monitoring requirements shall include, at a minimum, the following information:

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

    b. The date, exact place and description of sampling stations, including differences unique to each station (e.g., date, time, station location, depth, and sample type).

    c. A list of the individuals participating in field collection of samples or data and description of the sample collection and preservation procedures used in the various surveys.

d. A description of the specific method used for laboratory analysis, the date(s) the analyses were performed and the individuals participating in these analyses.

e. An in-depth discussion of the results of the survey. All tabulations and computations shall be explained.

12. 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 this Order.

13. The Discharger shall attach a cover letter to the monitoring reports. The information contained in the cover letter shall clearly identify violations of the Order; 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.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP. The Discharger shall submit monthly, quarterly, semiannual, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule, except where specific monitoring periods and reporting dates are required elsewhere in the Order:

Table E-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Order Effective Date	All	Submit with monthly SMR
Hourly	Order Effective Date	Hourly	Submit with monthly SMR
Daily	Order Effective Date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following Order effective date or on Order effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	By the 15th day of the second month after the month of sampling

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 15 February 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 15

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR part 136.

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

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

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

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

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

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

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

6. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data

set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

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

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

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

C. Discharge Monitoring Reports (DMRs)

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

D. Other Reports

1. Gross Beta Radioactivity ~~Source Identification and Control~~ Study

The Discharger shall submit a work plan within 90 days of the effective date of this Order describing the actions ~~that will be completed to identify and control the beta radioactivity discharged to the ocean~~the Discharger will complete to investigate the accuracy and reliability of the gross beta radioactivity analytical methods when analyzing the Avalon WWTF final effluent. The work plan shall be approved by the Executive Officer prior to implementation.

2. The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, BMPs, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection X.B above.

3. Annual Summary Report

   By April 15 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results (including the average and peak flow for the year) and a summary of any actions taken regarding the use or production of recycled water at the Avalon WWTF. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, the outfall system, or any changes that may affect the quality of the final effluent. The Discharger shall submit annual reports to the Regional Water Board in accordance with the requirements described in subsection X.B.7. above.

   Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, the following additional information shall be provided:

   a. A list of the pollutants(s) that triggered reasonable potential;

   b. The criteria that was exceeded for each given pollutant;

   c. The concentration of the pollutant(s);

   d. The test method used to analyze the sample; and,

   e. The date and time of sample collection.

4. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

5. Receiving Water Monitoring Report

   An annual summary of the receiving water monitoring data collected during each sampling year (January – December) shall be prepared and submitted to the Regional Water Board by August 15th of the following year. This annual summary shall include a brief discussion of the monitoring results.

   A detailed Biennial Receiving Water Monitoring Assessment Report of the data collected during the two previous calendar sampling years (January-December) shall be prepared and submitted so that it is received by the Regional Water Board by August 15th of every other year. This report shall include an annual data summary, a description of the nearfield zone, and an in-depth analysis of the biological and chemical data following recommendations in *Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Water* (EPA, November 1982; 430/982-010; pages 74-91) and the Model Monitoring Program Guidance Document (Schiff, K.C., J.S. Brown and S.B. Weisberg, 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California.* SCCWRP Tech. Rep #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). Data shall be tabulated, summarized, graphed where appropriate, analyzed, interpreted, and generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relationship of physical and chemical parameters shall be evaluated. See also Section VIII of this MRP. All receiving water monitoring data shall be submitted in accordance with the California Environmental Data Exchange Network (CEDEN).

The first assessment report shall be due August 15, 2020 and cover the sampling periods from January 2018 through December 2019. Subsequent reports shall be due August 15, 2022, and August 15, 2024, to cover sampling periods from January 2020 through December 2021, and January 2022 through December 2023, respectively.

6. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

7. Outfall Inspection Report

   By July 1st following the year the outfall inspection is conducted, the Discharger shall prepare and submit a summary report of the outfall inspection findings to the Regional Water Board. This written report, augmented with videographic and/or photographic images, and shall provide a description of the observed external condition of the discharge pipes from shallow water to their respective termini.

8. Technical Report on Preventive and Contingency Plans

   The Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

   b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

   c. Describe facilities and procedures needed for effective preventive and contingency plans.

   d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent on interim and final dates when they will be constructed, implemented, or operational.

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B190100001
Discharger	City of Avalon
Name of Facility	Avalon Wastewater Treatment Facility and its associated collection system and outfall
Facility Address	123 Pebbly Beach Road
	Avalon, CA 90704
	Los Angeles County
Facility Contact, Title and Phone	Van Madding, Chief Plant Operator, (310) 510-0731
Authorized Person to Sign and Submit Reports	Denise Radde, City Manager, (310) 510-0220
Mailing Address	PO Box 707, Avalon, CA, 90704
Billing Address	PO Box 1810, Avalon, CA, 90704
Type of Facility	Publicly-Owned Treatment Works
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	No
Recycling Requirements	None
Facility Permitted Flow	1.2 million gallons per day (mgd)
Facility Design Flow	1.2 mgd
Watershed	Santa Catalina Island Subwatershed
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The City of Avalon (hereinafter City or Discharger) owns the Avalon Wastewater Treatment Facility (Facility of Avalon WWTF), a Publicly Owned Treatment Works (POTW), located at 123 Pebbly Beach Road, Avalon~~-~~, California. ES Engineering, Inc. operates the Facility under a contract with the City.

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

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R4-2013-0182 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054372, which was adopted on December 05, 2013, expired on January 31, 2019. The terms and conditions of Order No. R4-2013-0182 are administratively extended until the adoption of this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on August 04, 2018. Supplemental information was requested on August 21, 2018 and received on September 21, 2018. Additional information was requested on October 05, 2018 and received on November 09, 2018. The application was deemed complete on November 15, 2018. A site visit was conducted on November 20, 2018, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

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

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

1. The Avalon WWTF is located on Pebbly Beach Road, near the southwestern coastal tip of Santa Catalina Island, Los Angeles County, California. The Avalon WWTF treats municipal wastewater, which is a mix of fresh and saltwater, from domestic and commercial sources. The influent to the Avalon WWTF is approximately 40% to 50% salt water. Seawater is used for toilet flushing in the City of Avalon.

2. In addition, to protect water quality in Avalon Bay, the Facility also treats a portion of the dry weather surface runoff and the first flush of storm water (first half hour of rainfall), via low-flow diversions into the sewer collection system. This is an intermittent system and only activates during dry weather and the first half hour of rainfall events; it is not a combined sewer system. After the first half hour of rainfall, the system is designed to redirect runoff to the storm drains, which convey stormwater to the ocean.

3. There are approximately 3,800 people in the service area and the Facility has an average dry weather design treatment capacity of 1.2 mgd. The treated wastewater is discharged to the Pacific Ocean, a water of the United States, through an ocean outfall off Pebbly Beach.

4. Wastewater treatment at the Facility consists of a rotating screen for removal of large particles, an aerated grit unit, a trickling filter and activated sludge reactors for removal of organics, clarifiers for separation of solids, and a chlorination system for disinfection. The trickling filter is typically only used during the summer. When the trickling filter is online, approximately twenty percent of the influent flow is diverted from the aerated grit unit to remove additional BOD and suspended solids from the wastewater before combining with the remaining influent flow from the aerated grit unit and entering the aeration tanks. The effluent is partially chlorinated with the addition of sodium hypochlorite solution to maintain consistent compliance with the receiving water bacterial standards. Solids separated at the rotating screen are sent to the Pebbly Beach Landfill, regulated separately under Order No. R4-~~2002~~2016-~~0058~~0140. Waste sludge from activated

sludge reactors is aerobically digested, dewatered in a centrifuge, and dried in sludge drying beds before being hauled to the Pebbly Beach Landfill.

B. Discharge Points and Receiving Waters

1. The secondary-treated wastewater is discharged to Discharge Point 001 to the Pacific Ocean off Pebbly Beach, approximately halfway between the Avalon WWTF and Avalon Bay. The discharge pipe is one foot in diameter and extends 400 feet offshore and 130 feet below the ocean surface (Latitude: 33.338611 Longitude: -118.311111).
2. The State Water Board has designated the area from Binnacle Rock to Jewfish Point on Santa Catalina Island as an Area of Special Biological Significance (ASBS). The discharge point is about 1.5 miles north, outside the ASBS.

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

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

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation in Order No. R4-2013-0182				Monitoring Data (From June 2013 – To July 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Conventional/Non-Conventional								
Biochemical Oxygen Demand (BOD)	mg/L	20	35	--	--	20	29	83
Total Suspended Solids (TSS)	mg/L	30	45	--	--	31	45.4	105
Oil & Grease	mg/L	25	40	--	75	23	--	23
Settleable Solids	mL/L	1.0	1.5	--	3.0	0.6	--	0.6
Turbidity	NTU	75	100	--	225	23.6	28	28
pH	pH Unit	6.0 (Instantaneous Minimum) – 9.0 (Instantaneous Maximum)				7.84	--	7.84
Temperature	°F	--	--	--	100	79.9	--	79.9
Nitrate-N	mg/L	--	--	--	--	138	--	138
Total Organic Carbon (TOC)	mg/L	--	--	--	--	28	--	28
Marine Aquatic Life Protection								
Arsenic	µg/L	--	--	--	--	12.5	--	12.5
Cadmium	µg/L	--	--	--	--	0.32	--	0.32
Chromium (VI)	µg/L	--	--	--	--	<1	--	<1
Copper	µg/L	--	--	--	--	16	--	16
Lead	µg/L	--	--	--	--	1	--	1
Mercury	µg/L	--	--	--	--	0.099	--	0.099
Nickel	µg/L	--	--	--	--	13.4	--	13.4
Selenium	µg/L	--	--	--	--	14	--	14
Silver	µg/L	--	--	--	--	0.5	--	0.5
Zinc	µg/L	--	--	--	--	151	--	151
Cyanide	µg/L	61	--	240	610	0.76	--	0.76
Total Chlorine Residual	µg/L	120	--	490	3,700	56.5	--	195

Parameter	Units	Effluent Limitation in Order No. R4-2013-0182				Monitoring Data (From June 2013 – To July 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Ammonia-N	mg/L	--	--	--	--	9.3	--	9.3
Phenolic Compounds (non-chlorinated)	µg/L	--	--	--	--	<0.91	--	<0.91
Phenolic Compounds (chlorinated)	µg/L	61	--	240	610	<0.99	--	<0.99
Endosulfan	µg/L	--	--	--	--	<0.03	--	<0.03
Endrin	µg/L	0.12	--	0.24	0.37	<0.031	--	<0.031
Hexachlorocyclohexane (HCH)	µg/L	0.24	--	0.49	0.73	<0.031	--	<0.031
Chronic Toxicity	TUc	--	--	61	--	27.1	--	27.1
Radioactivity								
Gross Alpha	pCi/L	--	--	15	--	9.6	--	9.6
Gross Beta	pCi/L	--	--	50	--	150	--	150
Combined Radium-226 & Radium 228	pCi/L	--	--	5.0	--	--	--	--
Tritium	pCi/L	--	--	20,000	--	--	--	--
Strontium-90	pCi/L	--	--	8.0	--	--	--	--
Uranium	pCi/L	--	--	20	--	--	--	--
Human Health Toxicants - Noncarcinogens								
Acrolein	µg/L	--	--	--	--	<3.8	--	<3.8
Antimony	µg/L	--	--	--	--	2	--	2
Bis (2-Chloroethoxy) methane	µg/L	--	--	--	--	<0.93	--	<0.93
Bis (2-Chloroisopropyl) ether	µg/L	--	--	--	--	<0.81	--	<0.81
Chlorobenzene	µg/L	--	--	--	--	<1	--	<1
Chromium III	µg/L	--	--	--	--	6	--	6
Di-n-Butyl Phthalate	µg/L	--	--	--	--	0.49	--	0.49
Dichlorobenzenes	µg/L	--	--	--	--	<1	--	<1
Diethyl phthalate	µg/L	--	--	--	--	3.1	--	3.1
Dimethyl phthalate	µg/L	--	--	--	--	<0.97	--	<0.97
4,6-dinitro-2-methylphenol	µg/L	--	--	--	--	<1.1	--	<1.1
2,4-dinitrophenol	µg/L	--	--	--	--	<1.3	--	<1.3
Ethylbenzene	µg/L	--	--	--	--	<1	--	<1
Fluoranthene	µg/L	--	--	--	--	<0.097	--	0.097
Hexachlorocyclopentadiene	µg/L	--	--	--	--	<0.9	--	<0.9
Nitrobenzene	µg/L	--	--	--	--	<0.95	--	<0.95
Thallium	µg/L	--	--	--	--	<6	--	<6
Toluene	µg/L	--	--	--	--	<1	--	<1
Tributyltin	µg/L	0.085	--	--	--	<2.7	--	<2.7
1,1,1-trichloroethane	µg/L	--	--	--	--	<1	--	<1
Human Health Toxicants - Carcinogens								
Acrylonitrile	µg/L	6.1	--	--	--	<2	--	<2

Parameter	Units	Effluent Limitation in Order No. R4-2013-0182				Monitoring Data (From June 2013 – To July 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Aldrin	µg/L	0.0013	--	--	--	<0.027	--	<0.027
Benzene	µg/L	--	--	--	--	<1	--	<1
Benzidine	µg/L	0.0042	--	--	--	<5	--	<5
Beryllium	µg/L	2.0	--	--	--	<2.9	--	<2.9
Bis (2-Chloroethyl) ether	µg/L	2.8	--	--	--	<0.95	--	<0.95
Bis(2-ethylhexyl)-phthalate	µg/L	210	--	--	--	59	--	59
Carbon tetrachloride	µg/L	--	--	--	--	<1	--	<1
Chlordane	µg/L	0.0014	--	--	--	<0.34	--	<0.34
Chlorodibromomethane	µg/L	--	--	--	--	<1	--	<1
Chloroform	µg/L	--	--	--	--	0.83	--	0.83
DDT	µg/L	0.01	--	--	--	<0.029	--	<0.029
1,4-Dichlorobenzene	µg/L	--	--	--	--	<0.93	--	<0.93
3,3'-Dichlorobenzidine	µg/L	0.49	--	--	--	<5	--	<5
1,2-dichloroethane	µg/L	--	--	--	--	<1	--	<1
1,1-dichloroethylene	µg/L	--	--	--	--	<1	--	<1
Dichlorobromomethane	µg/L	--	--	--	--	<1	--	<1
Dichloromethane	µg/L	--	--	--	--	<5	--	<5
1,3-dichloropropene	µg/L	--	--	--	--	<1	--	<1
Dieldrin	µg/L	0.0024	--	--	--	<0.029	--	<0.029
2,4-Dinitrotolulene	µg/L	--	--	--	--	<0.96	--	<0.96
1,2-Diphenylhydrazine	µg/L	9.8	--	--	--	<0.9	--	<0.9
Halomethanes	µg/L	--	--	--	--	<3	--	<3
Heptachlor	µg/L	0.0031	--	--	--	<0.027	--	<0.027
Heptachlor epoxide	µg/L	0.0012	--	--	--	<0.026	--	<0.026
Hexachlorobenzene	µg/L	0.013	--	--	--	<0.9	--	<0.9
Hexachlorobutadiene	µg/L	--	--	--	--	<0.9	--	<0.9
Hexachloroethane	µg/L	--	--	--	--	<0.9	--	<0.9
Isophorone	µg/L	--	--	--	--	<0.93	--	<0.93
N-Nitrosodimethylamine	µg/L	--	--	--	--	<0.88	--	<0.88
N-Nitrosodi-N-propylamine	µg/L	23	--	--	--	<0.97	--	<0.97
N-Nitrosodiphenylamine	µg/L	--	--	--	--	<0.83	--	<0.83
Polycyclic Aromatic Hydrocarbons (PAHs)	µg/L	0.54	--	--	--	<0.33	--	<0.33
Polychlorinated Biphenyls (PCBs) as Aroclors	µg/L	0.0012	--	--	--	<0.34	--	<0.34
TCDD equivalents	µg/L	$2.4x10^{-7}$	--	--	--	$1.37x10^{-6}$	--	$1.37x10^{-6}$
1,1,2,2-tetrachloroethane	µg/L	--	--	--	--	<1	--	<1
Tetrachloroethylene	µg/L	--	--	--	--	<1	--	<1
Toxaphene	µg/L	0.013	--	--	--	<0.6	--	<0.6

Parameter	Units	Effluent Limitation in Order No. R4-2013-0182				Monitoring Data (From June 2013 – To July 2018)		
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Trichloroethylene	µg/L	--	--	--	--	<1	--	<1
1,1,2-trichloroethane	µg/L	--	--	--	--	<1	--	<1
2,4,6-Trichlorophenol	µg/L	18	--	--	--	<0.99	--	<0.99
Vinyl chloride	µg/L	--	--	--	--	<1	--	<1
Methyl-tert-butyl-ether	µg/L	--	--	--	--	<2	--	<2

D. Compliance Summary

The Discharger complied with most final effluent limitations except for the following exceedances of the gross beta radiation maximum daily final effluent limitation:

Parameter	Effluent Limitation	Reported Value	Status	Date
Gross Beta Radioactivity	50 PCi/L Maximum Daily	50.3	Exceedance	01/27/15
		81.6	Exceedance	02/08/17
		81.1	Exceedance	10/04/17
		150	Exceedance	01/16/18

The Discharger also had several monitoring deficiencies during the permit cycle.

Cease and Desist Order (CDO) No. R4-2012-0077 was adopted by this Regional Water Board on April 05, 2012. This order was adopted in response to six sanitary sewer overflows that occurred between January 01, 2005, and February 23, 2011, and in response to a study conducted by the City that concluded the shallow groundwater underlying downtown Avalon is contaminated with high concentrations of fecal indicator bacteria. The sanitary sewer overflows occurred, in part, as a result of the discharger's failure to adequately identify and address collection system problems. This order was established to require the City of Avalon to cease and desist discharging waste in violation of bacteria requirements in the NPDES permit for the Avalon WWTF (Order No. R4-2008-0028) and the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-0003-DWQ), and to implement actions to achieve waste load allocations (WLAs) assigned to the City's discharges of waste and pollutants.

The CDO included several requirements to develop and improve the operations and maintenance of the facility and its collection system, each of which were addressed and are currently being implemented. The Discharger did not exceed the bacteria receiving water limitations at the monitoring locations around the outfall during the current permit cycle, and the beach water quality in Avalon Bay has been improving overall since the CDO was issued in 2012. However, there were two sanitary sewer overflows during the current permit cycle, one of which was recovered before reaching a surface water body. The other spill occurred on May 31, 2018 and resulted in the release of 97,225 gallons of raw sewage. About 90,250 gallons of the raw sewage was recovered, and about 6,975 gallons of raw sewage entered a surface water body. The spill was caused by an issue with the force main at the Pebbly Beach lift station, and the City is in the process of making the necessary repairs.

E. Planned Changes

There are currently no planned ~~improvements~~ changes to the Avalon WWTF.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. California Environmental Quality Act (CEQA)

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

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

1. **Water Quality Control Plan.** The Regional Water Board's Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. Requirements in this Order implement the Basin Plan.

   Beneficial uses applicable to the Pacific Ocean around Santa Catalina Island are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean, Santa Catalina Island nearshore zones (Hydro. Unit No. 406.4) Nearshore zone is defined as the zone 1,000 feet from the shoreline or the 30-foot contours, whichever is further from the shoreline	Existing: Navigation (NAV), Commercial and Sport Fishing (COMM), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Marine Habitat (MAR), (WILD), Rare, Threatened or Endangered Species (RARE), Shellfish Harvesting (SHELL), and Preservation of Biological Habitats (BIOL). Potential: Spawning, Reproduction, and/or Early Development (SPWN)

2. **California Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971 and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal and inland surface waters. The Thermal Plan defines the discharge from the Facility as an existing discharge of elevated temperature waste to coastal waters because the discharge is currently taking place and the temperature of the discharge is higher than the natural temperature of the receiving coastal waters. For coastal waters, the Thermal Plan requires

elevated temperature wastes to comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance. This Order includes temperature objectives for coastal waters; therefore, the requirements of this Order implement the Thermal Plan.

3. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, and 2015. The State Water Board adopted the latest amendment August 2018. This amendment is still in the process of being approved by the Office of Administrative Law and USEPA; therefore they are not yet in effect. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the state to be protected as summarized below:

Table F-4. Ocean Plan Beneficial Uses

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

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

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

5. **Stringency of Requirements for Individual Pollutants.** ~~This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA and California Ocean Plan.~~ Individual pollutant restrictions consist of technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs). The TBELs consist of restrictions on BOD, TSS, pH, and percent removal of BOD and TSS, which implement the minimum applicable federal technology-based requirements. The TBELs for BOD are more stringent than the minimum federal requirements and have been carried over from the previous permit to prevent backsliding. In addition, effluent limitations more stringent than federal technology-based requirements consisting of restrictions on oil and grease, settleable solids, and turbidity are necessary to implement State treatment standards in Table 2 of the Ocean Plan.

WQBELs for total chlorine residual, chronic toxicity, ~~radioactivity,~~ and TCDD equivalents, have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA”

pursuant to 40 CFR § 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

6. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16 and is described in further detail in Section IV.D.2. of the Fact Sheet.

7. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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. The applicability of these requirements to this Order is discussed in detail in Section IV.D.1. of this Fact Sheet.

   The accompanying monitoring and reporting program requires continued data collection and if monitoring data show reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the Order may be reopened to incorporate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conform with antidegradation policies and antibacksliding provisions.

8. **Endangered Species Act (ESA) 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 ESA (Fish and Game Code, §§ 2050 to 2097) or the Federal ESA (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable ESA.

9. **Monitoring and Reporting.** 40 CFR § 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.

10. **Water Recycling.** In accordance with statewide policies concerning water reclamation[1], this Regional Water Board strongly encourages, wherever practicable, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The

[1] See, e.g., CWC sections 13000 and 13550-13557, State Water Board Resolution No. 77-1 (Policy with Respect to Water Reclamation in California), and State Water Board Resolution No. 2009-0011 (Recycled Water Policy).

Discharger shall investigate the feasibility of recycling, conservation, and/or alternative disposal methods of wastewater (such as groundwater injection), and/or use of storm water and dry-weather urban runoff.

11. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR § 122.41, and additional conditions applicable to POTWs in accordance with 40 CFR § 122.42, are provided in Attachment D. The Regional Water Board and USEPA have also included in this Order Special Provisions applicable to the Discharger. The rationale for the Special Provisions contained in this Order is provided in the attached Fact Sheet.

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

The State Water Board proposed the California 2014-16 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing CWA section 303(d) List of Impaired Waters and section 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested persons. On October 03, 2017, the State Water Board adopted the California 2014-16 Integrated Report. On April 06, 2018, the 2014-2016 Integrated Report Section 303(d) List of Impaired Waters was approved by USEPA. The CWA section 303(d) list can be viewed at the following link:
https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

Avalon Beach is listed as impaired for indicator bacteria in the 2014-2016 303(d) list. Order No. R4-2002-0094 required the Discharger to conduct an effluent dispersion study to determine the extent of the wastewater plume. The Discharger conducted the dispersion study in the summer of 2002 and concluded that the wastewater plume from the Facility does not appear to encroach toward the shoreline during strongly stratified conditions, which occur in the summer through early fall, and the wastewater plume is unlikely to be the cause of the high bacteria results at Avalon Beach.

In response to the CWA section 303(d) listing and spills from Avalon's sewer system, the Regional Water Board adopted a Cease and Desist Order (CDO) and TMDL for Avalon Beach on April 05, 2012. Order No. R4-2012-0077 requires the City to cease and desist discharging waste in violation of requirements in Regional Water Board Order No. R4-2008-0028 and State Water Board Order No. 2006-0003-DWQ and to implement a TMDL for Avalon Beach. This TMDL became effective on April 05, 2012 upon adoption by the Regional Water Board.

E. Other Plans, Polices and Regulations

1. **Secondary Treatment Regulations.** 40 CFR § 133 establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.

2. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, in November 1991, the State Water Board issued a statewide general permit, NPDES No. CAS000001: *General Permit for Storm Water Discharges Associated with Industrial Activities*. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ, and superseded by Order No. 2014-0057-DWQ on April 01, 2014, to regulate storm water discharges associated with industrial activity.

General NPDES permit No. CAS000001 is applicable to storm water discharges from the Facility. On June 23, 2015, the Discharger filed a Notice of Intent to comply with the requirements of the *General Permit for Storm Water Discharges Associated with Industrial Activities* Order No. 2014-0057-DWQ. The Discharger developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP) to comply with Order No. 2014-0057-DWQ.

3. **Sanitary Sewer Overflows (SSOs).** The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code (USC) sections 1311 and 1342). The State Water Board adopted General WDRs for Sanitary Sewer Systems (Water Quality Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, as amended, to provide a consistent, statewide regulatory approach to address SSOs. The SSO WDR requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes and sewer lines to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

   The requirements contained in this Order sections in VI.C.3.b (Spill Cleanup Contingency Plan section), VI.C.4 (Construction, Operation and Maintenance Specifications section), and VI.C.6 (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Discharger under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

3. **Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR § 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The State has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency.

4. **Watershed Management.** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region Information about watersheds in the region can be obtained at the Regional Water Board's website at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available.

This Order and the accompanying Monitoring and Reporting Program (Attachment E) fosters implementation of this approach.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR § 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR § 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. Where numeric water quality objectives have not been established, 40 CFR § 122.44(d) specifies that WQBELs may be established using USEPA recommended criteria established under CWA section 304(a); proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information; or an indicator parameter.

A. Discharge Prohibitions

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

B. Technology-Based Effluent Limitations

1. Scope and Authority

Technology-based effluent limitations require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level - referred to as "secondary treatment" - that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR § 133. These technology- based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of $BOD_5$20°C, TSS, and pH.

2. Applicable Technology-Based Effluent Limitations

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR § 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and more stringent effluent limitations necessary to meet minimum federal technology-based requirements based on Secondary Standards at 40 CFR § 133 and Best Professional Judgment (BPJ) in accordance with 40 CFR § 125.3. Secondary treatment is defined in terms of three parameters – $BOD_5$20°C, TSS, and pH. The following summarizes the technology-based requirements for secondary treatment, which are applicable to the Facility:

Table F-5. Summary of TBELs in 40 CFR § 133.102

Parameter	Units	Effluent Limitations	
		Average Monthly	Average Weekly
$BOD_5$20°C	mg/L	30	45
TSS	mg/L	30	45
Removal Efficiency for TSS	%	85	--
Removal Efficiency for BOD	%	85	--
pH	6.0 to 9.0 pH units		

Also, Table 2 of the Ocean Plan establishes the following technology-based effluent limitations, which are applicable to the Facility:

Table F-6. Summary of TBELs for POTWs established by the Ocean Plan

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil & Grease	mg/L	25	40	75
TSS	mg/L	--	--	--
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
Removal Efficiency for TSS	%	75[2]	--	--
pH	6.0 to 9.0 pH units			

All technology-based effluent limitations from Order No. R4-2013-0182 for $BOD_5$20°C, TSS, oil and grease, settleable solids, pH, and turbidity are retained in this Order. Limitations for TSS and pH are based on secondary treatment standards established by the USEPA at 40 CFR § 133. Limitations for oil and grease, settleable solids, and turbidity are based on requirements in the Ocean Plan. The TBELs established for $BOD_5$20°C are more stringent than those specified in 40 CFR 133.102 and have been carried over from the previous permit to prevent backsliding.

The following table summarizes the technology-based effluent limitations for the discharge from the Facility:

Table F-7. Summary of TBELs

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5$20°C	mg/L	20	35	--	--	--
	lbs/day[3]	200	350	--	--	--
	% removal	85	--	--	--	--

[2] The Discharger shall, as a 30-day average, remove 75% of TSS from the influent stream before discharging the wastewater to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.

[3] The mass emission rates are calculated using the plant design flow rate of 1.2 mgd, and are calculated as follows: lbs/day = 0.00834 x Ce (effluent concentration, µg/L) x Q (flow rate, mgd). During wet-weather storm events in which the flow exceeds 1.2 mgd, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
TSS	mg/L	30	45	--	--	--
	lbs/day[3]	300	450	--	--	--
	% removal	85	--	--	--	--
Oil & Grease	mg/L	25	40	--	--	75
	lbs/day[3]	250	400			750
Settleable Solids	mL/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	6.0 to 9.0 pH units					

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 CFR § 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 CFR 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.

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water, as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality objective or limitation contained in the Ocean Plan. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA recommended criteria established pursuant to 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).

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and Ocean Plan establish the beneficial uses and Water Quality Objectives for ocean waters of the State. The beneficial uses of the receiving waters affected by the discharge have been described previously in this Fact Sheet. The Basin Plan contains Water Quality Objectives for bacteria for water bodies designated for water contact recreation and the Ocean Plan contains water quality objectives for bacterial, physical, chemical, and biological characteristics, and radioactivity. The Water Quality Objectives from the Ocean Plan and Basin Plan were incorporated into this Order as either final effluent limitations (based on reasonable potential) or receiving water limitations.

3. Expression of WQBELs

Pursuant to 40 CFR § 122.45(d)(2), for POTW continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average

monthly discharge limitations. It is impracticable to include only average weekly and average monthly effluent limitations in the Order because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives.

The WQBELs for marine aquatic life toxics contained in this Order are based on Table 1 water quality objectives contained in the Ocean Plan that are expressed as six-month median, daily maximum, and instantaneous maximum water quality objectives. However, in the existing Order (Order No. R4-2013-0182), the calculated effluent limitations based on 6-month median objectives for marine aquatic life toxics in the Ocean Plan were prescribed as average monthly effluent limitations. Applying the antibacksliding regulations, this Order retains the same approach and sets effluent limitations derived from six-month median water quality objectives for marine aquatic life toxics in the Ocean Plan as average monthly limitations.

4. Determining the Need for WQBELs

Order No. R4-2013-0182 contains effluent limitations for non-conventional and toxic pollutant parameters from Table 1 of the Ocean Plan. The need for effluent limitations based on water quality objectives from Table 1 of the Ocean Plan was reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the Ocean Plan. This statistical RPA method (RPcalc version 2.2) accounts for the averaging period of the water quality objective, accounts for and captures the long-term variability of the pollutant in the effluent, accounts for limitations associated with sparse data sets, accounts for uncertainty associated with censored data sets, and assumes a lognormal distribution of the facility-specific effluent data. The program calculates the upper confidence bound (UCB) of an effluent population percentile after complete mixing. In the evaluation employed in this Order, the UCB is calculated as the one-sided, upper 95 percent confidence bound for the 95^{th} percentile of the effluent distribution after complete mixing. The calculated $UCB_{95/95}$ is then compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For constituents that have an insufficient number of monitoring data or a substantial number of non-detected data with a reporting limit higher than the respective water quality objective, the RPA result is likely to be inconclusive. The Ocean Plan requires that the existing effluent limitations for these constituents be retained in the new Order, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a water quality objective.

Using this statistical procedure, in combination with effluent data provided by the Discharger from June 2013 to July 2018, and minimum initial dilution ratio of 60:1 for Discharge Point 001, Regional Water Board staff have determined that total chlorine residual, chronic toxicity, and TCDD equivalents, exhibit reasonable potential; therefore, the final effluent limitations from the previous permit were carried over for these pollutants. ~~Using the same statistical procedure and data set with no dilution ratio, Regional Water Board staff determined that radioactivity also exhibited reasonable potential and requires a final effluent limitation.~~

The RPA for several pollutants were inconclusive because greater than 20% of the data points were not detected. No final effluent limitations were assigned to those pollutants with inconclusive monitoring results, even if that pollutant had a final effluent limitation in the previous permit. The Ocean Plan requires an effluent limitation for a pollutant with inconclusive RPA unless a reopener clause is included that allows subsequent modification to the permit to include a final effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an

excursion above a water quality objective. The permit includes such a reopener provision; therefore, no effluent limitations were included for these pollutants. Those pollutants that had final effluent limitations in the previous permit but had inconclusive RPA results include cyanide, chlorinated phenolic compounds, hexachlorocyclohexane, endrin, tributyltin, acrylonitrile, aldrin, benzidine, beryllium, bis(2-chloroethyl) ether, chlordane, DDT, 3,3'-dichlorobenzidine, dieldrin, 1,2-diphenylhydrazine, heptachlor, heptachlor epoxide, hexachlorobenzene, N-nitrosodi-N-propylamine, PAHs, PCBs, toxaphene, and 2,4,6-trichlorophenol.

In general, for constituents that have been determined to have no reasonable potential to cause, or contribute to, excursions of water quality objectives, no numerical limits are prescribed; instead a narrative statement to comply with all Ocean Plan requirements is provided and the Discharger is required to monitor for these constituents to gather data for use in RPAs for future Order renewals and/or updates. Those pollutants that had final effluent limitations in the previous permit but no longer exhibit reasonable potential include bis(2-ethylhexyl) phthalate.

Bacteria did not have reasonable potential to cause or exceed water quality standards and no WQBELs for bacteria are prescribed in this Order. Bacteria monitoring is required at offshore and shoreline monitoring locations to demonstrate that the Ocean Plan objectives are being met. The Ocean Plan includes receiving water limitations for bacteria within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports as determined by the Regional Water Board.

From 2014 to 2017, receiving water monitoring between the outfall and the shoreline demonstrate has demonstrated attainment of the bacteria objectives. Fecal indicator bacteria, total coliform, and *Enterococcus* receiving water results were all below the bacteria receiving water standards between 2014 and 2017. Most of the fecal and *Enterococcus* bacteria receiving water results were below the method detection limit (<2 MPN/ 100 mL). Total coliform was detected in the receiving water but below the receiving water objectives. Where bacteria objectives have been routinely exceeded at the shoreline in this region, the Regional Water Board issued a Cease and Desist Order and Total Maximum Daily Load with Resolution No. R4-2012-0077 to provide numeric targets for the bacteria water quality impairments.

5. WQBEL Calculations

From the Table 1 water quality objectives in the Ocean Plan, effluent limitations are calculated according to the following equation for all pollutants, except for acute toxicity (if applicable):

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

where

C_e = the effluent limitation (μg/L)

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

C_s = background seawater concentration (μg/L) (see Table below)

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

The D_m is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial

dilution process flow across the discharge structure. In this Order, a dilution ratio of 60:1 has been applied to Discharge Point 001.

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submerged 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. As site-specific water quality data is not available, in accordance with Table 1 implementing procedures, C_s equals zero for all pollutants, except the following:

Table F-8. Pollutants with Background Seawater Concentrations

Constituent	Background Seawater Concentration (C_s)
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

The calculation of WQBELs for total chlorine residual are demonstrated below for Discharge Point 001, as an example:

Table F-9. Ocean Plan Water Quality Objectives (C_o) for Total Chlorine Residual

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum	30 Day Average
Total Chlorine Residual	2 µg/L	8 µg/L	60 µg/L	--

Using the equation, $\mathbf{C_e=C_o+D_m(C_o-C_s)}$, effluent limitations are calculated as follows before rounding to two significant digits. All calculations are based on discharge through Discharge Point 001 and, therefore, a dilution ratio (D_m) of 60:1 is applied.

Total Chlorine Residual

C_e = 2 + 60(2-0) = 122 µg/L (rounded to 120 µg/L and prescribed as Average Monthly)

C_e = 8 + 60(8-0) = 488 µg/L (rounded to 490 µg/L and prescribed as Daily Maximum)

C_e = 60 + 60(60-0) = 3660 µg/L (rounded to 3,700 and prescribed as instantaneous maximum)

Based on the implementing procedures described above, effluent limitations have been calculated for all Table 1 pollutants) from the Ocean Plan and incorporated into this Order when applicable.

~~**Radioactivity**~~

~~Since the descriptive water quality objective for radioactivity in the Ocean Plan fails to establish an applicable narrative or numeric effluent limitation for radionuclides, Regional Water Board staff used Best Professional Judgement (BPJ) to establish radioactivity limitations for the effluent using Maximum Contaminant Levels (MCLs) for drinking water specified in Title 22, California Code of Regulations (CCR) because it is the only~~

~~scientifically-based regulatory criteriona available. These values have been carried over from the previous Order.~~

6. Whole Effluent Toxicity (WET)

Whole Effluent Toxicity (WET) testing protects receiving waters from the aggregate toxic effect of a mixture of pollutants in the effluent or pollutants that are not typically monitored. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period and may measure a sublethal endpoint such as reproduction or growth in addition to mortality. A constituent present at low concentrations may exhibit a chronic effect; however, a higher concentration of the same constituent may be required to produce an acute effect. Because of the nature of discharges into the POTW sewershed, toxic constituents (or a mixture of constituents exhibiting toxic effects) may be present in the effluent.

A total of 31 chronic WET tests were conducted on Avalon WWTF final effluent between June 2013 and July 2018. Although no exceedances of the maximum daily final effluent trigger were reported for chronic toxicity, an effluent limitation for chronic toxicity was included in this permit due to the nature of the sewershed which includes commercial, and residential discharges, dry-weather runoff, and the first flush of storm water runoff. These sources may contribute toxic constituents or mixtures of toxic constituents to the wastewater and may therefore be present in the effluent.

The 2013 permit contained a final effluent trigger for chronic toxicity at Discharge Point 001. Based on the analysis above, this Order contains a final effluent limitation for chronic toxicity for Discharge Point 001, expressed as a maximum daily effluent limitation.

The Ocean Plan addresses the application of chronic and acute toxicity requirements based on minimum probable dilutions (D_m) for ocean discharges. Following the ~~-~~Ocean Plan, dischargers are required to conduct chronic toxicity monitoring for ocean discharges with D_m factors ranging from 99 to 349 and Regional Water Boards may require acute toxicity monitoring in addition to chronic toxicity monitoring. Dischargers with D_m factors below 99 are required to conduct only chronic toxicity testing. The D_m for Discharge Point 001 is 60. Since D_m is below 99, chronic toxicity monitoring is required and has been assigned a final effluent limitation. No acute toxicity monitoring or final effluent limitations have been assigned to Discharge Point 001 consistent with 40 CFR § 122.44(d)(1)(v), the Ocean Plan, and because the chronic toxicity final effluent limitation is protective of both chronic and acute toxicity.

The Ocean Plan establishes a daily maximum chronic toxicity objective of 1.0 TUc = 100/(No Observed Effect Concentration (NOEC)), using a 5-concentration hypothesis test, and a daily maximum acute toxicity objective of 0.3 TUa = 100/LC50, using a point estimate model. This Order includes final effluent limitations using the Test of Significant Toxicity (TST) hypothesis testing approach. This statistical approach is consistent with the Ocean Plan in that it provides maximum protection to the environment since it more reliably identifies acute and chronic toxicity than the current NOEC hypothesis-testing approach (See California Ocean Plan, Section III.F and Appendix I).

On October 19, 2018, the State Water Board released a revised version of the Chronic Toxicity Plan for public comments. The item is tentatively scheduled for State Water Board consideration in early 2019. Because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective for chronic toxicity, this Order contains a numeric chronic toxicity effluent limitation. Compliance with the chronic toxicity requirement contained in this Order shall be determined in accordance with section VII.J. Nevertheless, this Order contains a reopener to allow the Regional

Water Board to modify the permit in the future, if necessary, to make it consistent with any new policy, plan, law, or regulation.

For this Order, chronic toxicity in the discharge is evaluated using a maximum daily effluent limitation that utilizes USEPA's 2010 TST hypothesis testing approach. The chronic toxicity effluent limitations are expressed as "Pass" for each maximum daily individual result.

In January 2010, USEPA published a guidance document titled *EPA Regions 8, 9 and 10 Toxicity Training Tool*, which among other things discusses permit limit expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR § 122.45(d) require that all permit limits be expressed, unless impracticable, as an Average Weekly Effluent Limitation (AWEL) and an Average Monthly Effluent Limitation (AMEL) for POTWs. Following Section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL is not appropriate for WET. In lieu of an AWEL for WET, USEPA recommends establishing a Maximum Daily Effluent Limitation (MDEL) for toxic pollutants and pollutants in water quality permitting, including WET. For an ocean discharge, this is appropriate because the Ocean Plan only requires a MDEL and does not include Average Monthly or Average Weekly Effluent Limitations for chronic toxicity (See California Ocean Plan, section II.D.7.).

The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. The AMEL is the highest allowable value for the average of daily discharges obtained over a calendar month. For WET, this is the average of individual WET test results for that calendar month. In June 2010, USEPA published another guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/0136,1995), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

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

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

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or Percent Minimum Significant Difference (PMSDs) must be submitted for review by the Regional Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditations Program (40 CFR § 122.44(h)). The PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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 effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with several exceptions.

The effluent limitations for cyanide, chlorinated phenolic compounds, hexachlorocyclohexane, endrin, tributyltin, acrylonitrile, aldrin, benzidine, beryllium, Bis(2-chloroethyl) ether, bis(2-ethylhexyl) phthalate, chlordane, DDT, 3,3'-dichlorobenzidine, dieldrin, 1,2-diphenylhydrazine, heptachlor, heptachlor epoxide, hexachlorobenzene, N-nitrosodi-N-propylamine, PAHs, PCBs, toxaphene, and 2,4,6-trichlorophenol, were removed because the effluent either did not exhibit reasonable potential to exceed the water quality objective for that pollutant or the RPA was inconclusive. The permit requires monitoring and reporting of each of these pollutants and also includes a reopener to incorporate a new limit if future reasonable potential analysis establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above the water quality objective. The Pacific Ocean around Santa Catalina Island is also not impaired for the aforementioned pollutants.

The numeric final effluent limitations for radioactivity from the previous order (Order No. R4-2013-0182) were based on the drinking water Maximum Contaminant levels (MCLs) in the California Code of Regulations because there are few other standards on which to base numeric limitations. The California Ocean Plan includes a narrative water quality objective that states, "Discharge of radioactive waste shall not degrade marine life." To implement this narrative objective, the previous order included final effluent limitations for radioactivity. Title 40 of the Code of Federal Regulations (CFR) section 122.44(l)(1) requires that effluent limitations be at least as stringent as the final effluent limitations in the previous permit unless the circumstances on which the previous permit was based have materially of substantially changed. Although the rationale for the final effluent limitations for radioactivity is consistent with the previous permit, the Regional Water Board has determined that it is not appropriate to use the drinking water MCLs for radioactivity to assess compliance with the Ocean Plan narrative objective for this facility since the Ocean Plan does not include municipal and domestic supply as a beneficial

use for the receiving water. As a result, this Order does not include final effluent limitations for radioactivity, rather it includes performance goals to maintain consistent discharge quality.~~The effluent from the facility is discharged to the Pacific Ocean near Santa Catalina Island. The applicable water quality control plan is the Ocean Plan. The Pacific Ocean in that area does not have a municipal and domestic supply use, however, the effluent limitations for radioactivity are based on the state drinking water Maximum Contaminant Levels (MCLs) because there are few other standards on which to base numeric limitations. The final effluent limitations for radioactivity in this Order have been modified from daily maximum to running annual average final effluent limitations to take into account the nature of the receiving water.~~ CWA ~~Section~~ section 402(o)(1) prohibits the establishment of less stringent water quality based effluent limitations "except in compliance with section 303(d)(4)." Section 303(d)(4) of the CWA has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters as follows:

i. For waters where standards are not attained, CWA section 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on such TMDLs or WLAs will assure the attainment of such water quality standards.

ii. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the Antidegradation Policy.

The Pacific Ocean surrounding Santa Catalina Island is considered an attainment water for radioactivity because it is not on the 303(d) impaired water bodies list. Removal of the final effluent limitations for radioactivity is consistent with the antidegradation policy because this action is not expected to unreasonably affect present and future beneficial uses and it is not expected to result in water quality less than prescribed in the applicable policies. This Order also continues to require monitoring and establishes performance goals to monitor the radioactivity in the final effluent.

~~401(o)(2) allows backsliding where water quality meets or exceeds water quality standards and such backsliding complies with the state's antidegradation policy. The Pacific Ocean around Santa Catalina Island is an attainment water because the water quality meets the water quality standards for radioactivity. In addition, the final effluent limitations are more stringent than required in the Ocean Plan to protect the beneficial uses of the receiving water and, as discussed below, are consistent with the antidegradation policy. Therefore, this modification is consistent with the anti-backsliding policy.~~

2. Antidegradation Policies

This Order includes both narrative and numeric final effluent limitations, receiving water limitations, and performance goals, to maintain the chemical, physical, and biological characteristics, and to protect the beneficial uses, of the receiving water. These requirements ensure that all water quality objectives are being met outside the zone of initial dilution, thereby maintaining the beneficial uses. The ~~2015~~ Ocean Plan allows for minimal degradation within the zone of initial dilution if the water quality objectives are maintained just outside the zone of initial dilution. The minimal degradation permitted by the ~~2015~~ Ocean Plan is consistent with the antidegradation policy because it maintains maximum benefit to the people of the State, it will not unreasonably affect the present and anticipated beneficial uses, and it will not result in water quality less than that prescribed in the policies.

The effluent limitations for cyanide, chlorinated phenolic compounds, hexachlorocyclohexane, endrin, tributyltin, acrylonitrile, aldrin, benzidine, beryllium, Bis(2-chloroethyl) ether, bis(2-ethylhexyl) phthalate, chlordane, DDT, 3,3'-dichlorobenzidine, dieldrin, 1,2-diphenylhydrazine, heptachlor, heptachlor epoxide, hexachlorobenzene, N-nitrosodi-N-propylamine, PAHs, PCBs, toxaphene, and 2,4,6-trichlorophenol, were removed because the effluent either did not exhibit reasonable potential to exceed the water quality objective for that pollutant or the RPA was inconclusive. The permit requires monitoring and reporting for each of these pollutants and also includes a reopener to incorporate a new limit if future reasonable potential analysis establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above the water quality objective. Removal of these final effluent limitations is therefore not expected to result in an increase in the mass of pollutant discharged or a decrease in the quality of treatment.

The final effluent limitations from the previous order for total chlorine residual and TCDD equivalents, are retained in this Order because the pollutants continue to show reasonable potential to cause or contribute to an exceedance of the water quality objectives in the Ocean Plan.

The daily maximum final effluent limitations for radioactivity were changed to performance goals in this Order. ~~modified in this Order to running annual average final effluent limitations. Since t~~In the previous Order, the final effluent limitations for radioactivity ~~are~~ were based on the drinking water MCLs in the California Code of Regulations. The Regional Water Board has determined that it is not appropriate to assess compliance with the Ocean Plan narrative objective for radioactivity using the drinking water MCLs since there is no municipal or domestic beneficial use for the Pacific Ocean surrounding Santa Catalina Island. The performance goals for radioactivity will ensure the Discharger maintains the quality of treatment at the Avalon WWTF. The performance goals for radioactivity are based on a running annual average to be consistent with the California Code of Regulations. Removal of the final effluent limitations for radioactivity is consistent with the antidegradation policy because this action is not expected to unreasonably impact the beneficial uses and it is not expected to result in water quality less than prescribed in the applicable policies. ~~and compliance with the radioactivity drinking water MCLs is based on a running annual average, this modification is consistent with the California Code of Regulations regarding implementation of such drinking water standards. Since the radioactivity final effluent limitations are based on drinking water Maximum Contaminant Levels (MCLs) and the Pacific Ocean around Santa Catalina Island does not have a municipal and domestic supply beneficial use, the final effluent limitations are more stringent than required in the Ocean Plan to protect the beneficial uses of the receiving water. Since the final effluent limitations for radioactivity are more stringent than necessary to protect the beneficial uses, the change to an annual average final effluent limitation is not expected to result in an increased volume or concentration of radioactivity in the discharge from the Facility.~~ The permit also includes a narrative receiving water limitation to limit radioactive waste from degrading marine life, which ensures that the discharge will continue to meet the water quality objectives for radioactivity.

This Order includes a new final effluent limitation for chronic toxicity. The final effluent limitations (and the reasonable potential analyses) are calculated using the dilution ratio of 60:1. The accompanying MRP requires continued data collection and if monitoring data show reasonable potential for a pollutant to cause or contribute to an exceedance of water quality objectives, the permit may be reopened to incorporate appropriate WQBELs. Such an approach ensures that the discharge will adequately protect the beneficial uses and conforms to antidegradation policies and antibacksliding provisions.

The performance goals are an additional incentive for the Discharger to maintain the current treatment quality since the performance goals set final effluent targets for the Discharger to meet based on current performance. Some performance goals in this Order are more stringent due to improved performance; however, the performance goals for some constituents have increased. Since the performance goals are based on performance and do not exceed the water quality objectives for the receiving water, the increase of any performance goal is not expected to result in additional degradation.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, settleable solids, turbidity, oil and grease, and pH. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by USEPA on February 14, 2006 and has since been further amended. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order were approved by USEPA and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-10. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations[4]					Performance Goal	Basis
		Average Monthly	Average Weekly	Maximum Daily[5]	Instant-aneous Maximum[6]	Running Annual Average		
$BOD_5 20^{\circ}C$	mg/L	20	35	--	--	--	--	Secondary treatment standard/ Existing
	lbs/day[7]	200	350	--	--	--		
	% Removal	85	--	--	--	--		
TSS	mg/L	30	45	--	--	--	--	Secondary treatment standard/ Existing
	lbs/day[7]	300	450	--	--	--		
	% Removal	85	--	--	--	--		
Temperature	°F	--	--	--	100	--	--	Thermal Plan/ Existing
pH	pH Unit	6.0 (instantaneous minimum) – 9.0 (instantaneous maximum)						Secondary treatment standard/ Existing
Oil and Grease	mg/L	25	40	--	75	--	--	Ocean Plan/ Existing
	lbs/day[7]	250	400	--	750	--	--	
Settleable Solids	mL/L	1.0	1.5	--	3.0	--	--	Ocean Plan/ Existing
Turbidity	NTU	75	100	--	225	--	--	Ocean Plan/ Existing
Marine Aquatic Life Toxicants								
Arsenic	µg/L	--	--	--	--	--	12.5	No RP
Cadmium	µg/L	--	--	--	--	--	0.32	No RP
Chromium (VI)	µg/L	--	--	--	--	--	25	No RP
Copper	µg/L	--	--	--	--	--	16	No RP

[4] The minimum dilution ratio used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Point 001 is 60:1 for all pollutants (i.e. 60 parts seawater to one-part effluent).

[5] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. If 24-hour composite samples are not appropriate for a pollutant due to the pollutant's instability (ex. total chlorine residual), the maximum daily effluent limitation shall apply to grab samples.

[6] The instantaneous maximum effluent limitations shall apply to grab samples.

[7] The mass emission rates are calculated using a maximum flow rate of 1.2 mgd, consistent with water-quality based limits in the previous permit.: lbs/day = 0.00834 x Ce (effluent concentration in µg/L) x Q (flow rate in mgd). During storm events when flow exceeds 1.2 mgd, the mass emission rate limitations shall not apply.

Parameter	Units	Effluent Limitations[4]					Performance Goal	Basis
		Average Monthly	Average Weekly	Maximum Daily[5]	Instant-aneous Maximum[6]	Running Annual Average		
Lead	µg/L	--	--	--	--	--	2.5	No RP
Mercury	µg/L	--	--	--	--	--	0.099	No RP
Nickel	µg/L	--	--	--	--	--	13.4	No RP
Selenium	µg/L	--	--	--	--	--	14	No RP
Silver	µg/L	--	--	--	--	--	0.5	No RP
Zinc	µg/L	--	--	--	--	--	136	No RP
Cyanide	~~µm~~g/L	--	--	--	--	--	~~0.0007~~20	No RP
Total Chlorine Residual	µg/L	120	--	490	3,700	--	--	RP/ Ocean Plan/ Existing
	lbs/day[7]	1.2	--	4.9	37	--		
Ammonia as Nitrogen	mg/L	--	--	--	--	--	9.3	No RP
Chronic Toxicity[8,9] (TST)	Pass or Fail	--	--	Pass	--	--	--	RP/ Ocean Plan
Phenolic compounds (non-chlorinated)[10]	µg/L	--	--	--	--	--	5	No RP
Phenolic compounds (chlorinated)[10]	µg/L	--	--	--	--	--	5	No RP
Endosulfan[10]	µg/L	--	--	--	--	--	0.05	No RP
Endrin	µg/L	--	--	--	--	--	0.05	No RP
HCH[10]	µg/L	--	--	--	--	--	0.025	No RP
Radioactivity								
Gross alpha	pCi/L	--	--	--	--	--~~15~~	--15	No RP
Gross beta	pCi/L	--	--	--	--	~~50~~--	--50	No RP
Combined Radium-226 & Radium-228	pCi/L	--	--	--	--	--~~5.0~~	--5.0	No RP

[8] The chronic toxicity final effluent limitation is protective of both the numeric acute and chronic toxicity 2015 Ocean Plan water quality objectives. The final effluent limitation will be implemented using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), current USEPA guidance in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (http://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf) and USEPA Regions 8, 9, and 10, *Toxicity Training Tool* (January 2010).

[9] The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail." See section V.A.5.a. of the MRP.

[10] See Attachment A for definitions of terms.

Parameter	Units	Effluent Limitations[4]					Performance Goal	Basis
		Average Monthly	Average Weekly	Maximum Daily[5]	Instant-aneous Maximum [6]	Running Annual Average		
Tritium	pCi/L	--	--	--	--	~~--~~20,000	~~--~~20,000	No RP
Strontium-90	pCi/L	--	--	--	--	~~--~~8.0	~~--~~8.0	No RP
Uranium	pCi/L	--	--	--	--	~~--~~20	~~--~~20	No RP
Human Health Toxicants – Non-Carcinogens								
Acrolein	µg/L	--	--	--	--	--	25	No RP
Antimony	µg/L	--	--	--	--	--	2	No RP
Bis(2-chloroethoxy) methane	µg/L	--	--	--	--	--	25	No RP
Bis(2-chloroiso-propyl) ether	µg/L	--	--	--	--	--	10	No RP
Chlorobenzene	µg/L	--	--	--	--	--	10	No RP
Chromium (III)	µg/L	--	--	--	--	--	6	No RP
Di-n-butyl-phthalate	µg/L	--	--	--	--	--	0.49	No RP
Dichloro-benzenes[10]	µg/L	--	--	--	--	--	5	No RP
Diethyl phthalate	µg/L	--	--	--	--	--	3.1	No RP
Dimethyl phthalate	µg/L	--	--	--	--	--	10	No RP
4,6-dinitro-2-methylphenol	µg/L	--	--	--	--	--	25	No RP
2,4-Dinitrophenol	µg/L	--	--	--	--	--	25	No RP
Ethylbenzene	µg/L	--	--	--	--	--	10	No RP
Fluoranthene	µg/L	--	--	--	--	--	0.25	No RP
Hexachloro-cyclopentadiene	µg/L	--	--	--	--	--	25	No RP
Nitrobenzene	µg/L	--	--	--	--	--	5	No RP
Thallium	µg/L	--	--	--	--	--	5	No RP
Toluene	µg/L	--	--	--	--	--	10	No RP
Tributyltin	~~un~~g/L	--	--	--	--	--	14.5	No RP
1,1,1-Trichloro-ethane	µg/L	--	--	--	--	--	10	No RP
Human Health Toxicants – Carcinogens								
Acrylonitrile	µg/L	--	--	--	--	--	6.1	No RP
Aldrin	µg/L	--	--	--	--	--	0.0013	No RP
Benzene	µg/L	--	--	--	--	--	10	No RP
Benzidine	µg/L	--	--	--	--	--	0.0042	No RP
Beryllium	µg/L	--	--	--	--	--	2	No RP

Parameter	Units	Effluent Limitations[4]					Performance Goal	Basis
		Average Monthly	Average Weekly	Maximum Daily[5]	Instant-aneous Maximum[6]	Running Annual Average		
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	--	2.7	No RP
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	--	32	No RP
Carbon tetrachloride	µg/L	--	--	--	--	--	10	No RP
Chlordane[10]	µg/L	--	--	--	--	--	0.0014	No RP
Chlorodibromo-methane	µg/L	--	--	--	--	--	10	No RP
Chloroform	µg/L	--	--	--	--	--	0.83	No RP
DDT[10]	µg/L	--	--	--	--	--	0.01	No RP
1,4-Dichloro-benzene	µg/L	--	--	--	--	--	10	No RP
3,3'-Dichloro-benzidine	µg/L	--	--	--	--	--	0.49	No RP
1,2-Dichloro-ethane	µg/L	--	--	--	--	--	10	No RP
1,1-Dichloro-ethylene	µg/L	--	--	--	--	--	10	No RP
Dichlorobromo-methane	µg/L	--	--	--	--	--	10	No RP
Dichloro-methane	µg/L	--	--	--	--	--	10	No RP
1,3-Dichloro-propene	µg/L	--	--	--	--	--	10	No RP
Dieldrin	µg/L	--	--	--	--	--	0.0024	No RP
2,4-Dinitrotoluene	µg/L	--	--	--	--	--	25	No RP
1,2-Diphenyl-hydrazine	µg/L	--	--	--	--	--	5	No RP
Halomethanes[10]	µg/L	--	--	--	--	--	10	No RP
Heptachlor	µg/L	--	--	--	--	--	0.0031	No RP
Heptachlor epoxide	µg/L	--	--	--	--	--	0.0012	No RP
Hexachloro-benzene	µg/L	--	--	--	--	--	0.013	No RP
Hexachloro-butadiene	µg/L	--	--	--	--	--	5	No RP
Hexachloro-ethane	µg/L	--	--	--	--	--	5	No RP
Isophorone	µg/L	--	--	--	--	--	5	No RP

Parameter	Units	Effluent Limitations[4]					Performance Goal	Basis
		Average Monthly	Average Weekly	Maximum Daily[5]	Instant-aneous Maximum[6]	Running Annual Average		
N-Nitroso-dimethylamine	µg/L	--	--	--	--	--	25	No RP
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	--	23	No RP
N-Nitroso-diphenylamine	µg/L	--	--	--	--	--	5	No RP
PAHs[10]	µg/L	--	--	--	--	--	0.25	No RP
PCBs as Aroclors[10]	µg/L	--	--	--	--	--	0.0012	No RP
TCDD equivalents[10]	pg/L	0.24	--	--	--	--	--	RP/ Ocean Plan/ Existing
	lbs/day[7]	$2.4x10^{-9}$	--	--	--	--		
1,1,2,2-Tetrachloro-ethane	µg/L	--	--	--	--	--	10	No RP
Tetrachloro-ethylene	µg/L	--	--	--	--	--	10	No RP
Toxaphene	µg/L	--	--	--	--	--	0.013	No RP
Trichloro-ethylene	µg/L	--	--	--	--	--	10	No RP
1,1,2-Trichloroethane	µg/L	--	--	--	--	--	10	No RP
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--	18	No RP
Vinyl chloride	µg/L	--	--	--	--	--	10	No RP

E. Interim Effluent Limitations (NOT APPLICABLE)

F. Land Discharge Specifications (NOT APPLICABLE)

G. Recycling Specifications (NOT APPLICABLE)

V. PERFORMANCE GOALS

Section III.F.1, of the 2015 Ocean Plan allows the Regional Water Board to establish more restrictive water quality objectives and effluent limitations than those set forth in the Ocean Plan as necessary for the protection of the beneficial uses of ocean waters.

Pursuant to this provision and to implement the recommendation of the Water Quality Advisory Task Force (*Working Together for an Affordable Clean Water Environment*, A final report presented to the California Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task Force, September 30, 1993) that was adopted by the Regional Water Board on November 1, 1993, performance goals that are more stringent than those based on Ocean Plan objectives are prescribed in this Order. This approach is consistent with the antidegradation policy in that it requires the Discharger to maintain its treatment level and effluent quality, recognizing normal variations in treatment efficiency and sampling and analytical techniques. However, this

approach does not address substantial changes in treatment plant operations that could significantly affect the quality of the treated effluent.

While performance goals were previously placed in many POTW permits in this region, they have been discontinued for inland surface water discharges. For inland surface waters, the California Toxics Rule (40 CFR § 131.38) has resulted in effluent limitations as stringent as many performance goals. However, the Ocean Plan allows for significant dilution, and the continued use of performance goals serves to maintain existing treatment levels and effluent quality consistent with State and federal antidegradation policies.

The performance goals are based upon the actual performance of the Facility and are specified only as an indication of the treatment efficiency of the Facility. Performance goals are intended to minimize pollutant loading (primarily for toxics), while maintaining the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance. They are not considered enforceable limitations or standards for the regulation of the discharge from the treatment facility. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted.

Procedures for the Determination of Performance Goals

A. For constituents that have been routinely detected in the effluent (at least 20 percent detectable data), performance goals are based on the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent performance data ($UCB_{95/95}$) from June 2013 through July 2018 using the RPA protocol contained in the 2015 Ocean Plan. Effluent data are assumed log normally distributed. Performance goals are calculated according to the equation $C_{PG} = C_o+D_m(C_o-C_s)$ and setting $C_o = UCB_{95/95}$.

1. If the maximum detected effluent concentration (MEC) is greater than the calculated performance goal, then the calculated performance goal is used as the performance goal; or
2. If the maximum detected effluent concentration is less than the calculated performance goal, then the MEC is used as the performance goal.
3. If the performance goal determined in part 1 or 2 is greater than the Water Quality Objective (WQO) in the 2015 Ocean Plan after considering dilution, then the WQO is used as the performance goal.

   For example, the performance goals for nickel, zinc, and dieldrin at Discharge Point 001 are calculated as follows:

   Nickel
   $C_o = UCB_{95/95}$ = 0.31 µg/L; D_m = 60; C_s = background seawater concentration = 0 µg/L; MEC = 13.4 µg/L; C_{PG} = Performance Goal = (0.31 µg/L) + 60(0.31 µg/L - 0 µg/L) = 18.9 µg/L.

   Since the MEC of 13.4 µg/L is less than the calculated PG of 18.9 µg/L, the prescribed performance goal for nickel is 13.4 µg/L.

   Zinc
   $C_o = UCB_{95/95}$ = 10.1 µg/L; D_m = 60; C_s = background seawater concentration = 8 µg/L; MEC = 151 µg/L; C_{PG} = Performance Goal = (10.1 µg/L) + 60(10.1 µg/L - 8 µg/L) = 136 µg/L.

   Since the MEC of 151 µg/L is greater than the calculated PG of 136 µg/L, the prescribed performance goal for zinc is 136 µg/L.

Dieldrin

C_o = $UCB_{95/95}$ = N/A (all ND); C_o = WQO = 0.00004 µg/L; D_m = 60; C_s = background seawater concentration = 0 µg/L; MEC = N/A (all ND); C_{PG} = Performance Goal = (0.00004 µg/L) + 60(0.00004 µg/L - 0 µg/L) = 0.0024 µg/L.

Since there were no detections, the WQO is used to calculate the performance goal, so the prescribed performance goal for dieldrin is 0.0024 µg/L.

B. For constituents where monitoring data have consistently shown nondetectable levels (less than 20 percent detectable data), performance goals are set at five times the Minimum Levels listed in the 2015 Ocean Plan. If the maximum detected effluent concentration is less than the calculated value based on the ML, then the MEC is used as the performance goal.

C. For constituents with effluent limitations, if the performance goal derived from the steps above exceeds a respective effluent limitation, then a performance goal is not prescribed for that constituent.

Performance goals for Discharge Point 001 are prescribed in this Order. The listed performance goals are not enforceable effluent limitations or standards. The Discharger shall maintain, if not improve, its treatment efficiency. Any two consecutive exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Discharger shall submit a written report to the Regional Water Board and USEPA on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary.

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Ocean Plan and Basin Plan contain numeric and narrative water quality standards applicable to surface waters within the Los Angeles Region. Water quality objectives include a policy to maintain the high-quality waters pursuant to federal regulations (40 CFR § 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in the Order are included to ensure protection of beneficial uses of the receiving water.

B. Groundwater (NOT APPLICABLE)

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

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

B. Special Provisions

1. Reopener Provisions

These provisions are based on 40 CFR § 123.25. The Regional Water Board may reopen the Order to modify conditions and requirements. Causes for modifications can include, but are not limited to, the promulgation of new regulations, modification in biosolid use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Ocean Plan and Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on the State Water Board Resolution No. 68-16, which requires the Regional Water Board, in regulating the discharge of waste, to maintain high quality waters of the state. The Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to clarify that it has increased plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Discharger to report specific time schedules for the plant's projects. This provision requires the Discharger to submit a report to the Regional Water Board for approval.

~~b. **Operations Plan for Proposed Expansion.** This provision is based on section 13385(j)(1)(D) of the CWC and allows a period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Discharger to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.~~

~~c.~~b. **Treatment Plant Capacity.** The treatment plant capacity study required by this Order shall serve as an indicator for the Regional Water Board regarding the Facility's increasing hydraulic capacity and growth in the service area.

~~d.~~c. **Toxicity Reduction Evaluation (TRE) Requirements.** If one of the accelerated toxicity tests results in "Fail", the Discharger shall conduct a TRE as detailed in section V of the MRP (Attachment E). The TRE will help the Discharger identify the possible source(s) of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level.

3. Best Management Practices and Pollution Prevention

a. **Spill Clean-Up Contingency Plan (SCCP)**

Since spills or overflows are a common event at the POTW, this Order requires the Discharger to review and update, if necessary, its SCCP after each incident. The Discharger shall ensure that the up-to-date SCCP is readily available to the sewage system personnel at all times and that the sewage personnel are familiar with it.

b. **Pollutant Minimization Program (PMP)**

This provision is based on the requirements of section III.C.9 of the 2015 Ocean Plan.

4. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 CFR §122.41(e) and the previous Order.

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

a. **Sludge (Biosolids) Requirements.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR § 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program.

b. **Spill Reporting Requirements for POTWs.** This Order established a reporting protocol for how different types of spills, overflows, and bypasses of raw or partially treated sewage from the POTW shall be reported to regulatory agencies.

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

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

6. Compliance Schedules (NOT APPLICABLE)

VIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Influent monitoring is required to determine compliance with NPDES permit conditions and assess treatment plant performance. The influent monitoring in this Order follows the influent monitoring requirements in the previous Order.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharge to evaluate compliance with permit limitations and conditions. Monitoring requirements are specified in the Monitoring and Reporting Program (Attachment E). This Order requires compliance with the Monitoring and Reporting Program, and is based on 40 CFR § 122.48, 122.44(i), 122.41(j), 122.62, 122.63, and 124.5. The Monitoring and Reporting Program is a standard requirement in NPDES permits (including this Order) issued by the Regional Water Board or USEPA. In addition to containing definitions of terms, it specifies general sampling/analytical

protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board and USEPA policies. The Monitoring and Reporting Program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown on the proposed Monitoring and Reporting Program (Attachment E) and as required in the Ocean Plan.

Monitoring frequency for the constituents is based on historic monitoring frequency, Best Professional Judgment, and the following criteria:

Criterion 1: Monitoring frequency will be monthly for those pollutants with reasonable potential to exceed water quality objectives (monitoring has shown an exceedance of the objectives);

Criterion 2: Monitoring frequency will be quarterly for those pollutants in which some or all historic effluent monitoring data detected the pollutants, but without reasonable potential to exceed water quality objectives;

Criterion 3: Monitoring frequency will be semiannually for those pollutants in which all the historic effluent monitoring data are not detected and do not have reasonable potential to exceed water quality objectives.

Table F-11. Effluent Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2013 Order)	Monitoring Frequency (~~2018~~ 2019 Order)	Basis
Flow	Continuous	No Change	BPJ
BOD_5 20°C	5 days/week	No Change	BPJ
Total Suspended Solids	5 days/week	No Change	BPJ
pH	Monthly	No Change	BPJ
Oil and Grease	Monthly	No Change	BPJ
Temperature	Monthly	No Change	BPJ
Settleable Solids	Monthly	No Change	BPJ
Dissolved Oxygen	**Not Required**	**Monthly**	**BPJ**
Turbidity	Weekly	No Change	BPJ
Total Dissolved Solids	Monthly	No Change	BPJ
Total Coliform	Weekly	No Change	BPJ
Fecal Coliform	Weekly	No Change	BPJ
Enterococcus	**Monthly**	**Weekly**	**Ocean Plan**
Total Organic Carbon	Monthly	No Change	BPJ
Nitrate Nitrogen	Quarterly	No Change	BPJ
Organic Nitrogen	**Not Required**	**Quarterly**	**BPJ**
Total Phosphorus	**Not Required**	**Quarterly**	**BPJ**
Arsenic	Quarterly	No Change	Criterion 2
Cadmium	Quarterly	No Change	Criterion 2

Parameter	Monitoring Frequency (2013 Order)	Monitoring Frequency (~~2018~~ 2019 Order)	Basis
Chromium (VI)	Semiannually	No Change	Criterion 3
Copper	Quarterly	No Change	Criterion 2
Lead	Quarterly	No Change	Criterion 2
Mercury	**Semiannually**	**Quarterly**	**Criterion 2**
Nickel	Quarterly	No Change	Criterion 2
Selenium	Quarterly	No Change	Criterion 2
Silver	Quarterly	No Change	Criterion 2
Zinc	Quarterly	No Change	Criterion 2
Cyanide	**Semiannually**	**Quarterly**	**Criterion 2**
Total Chlorine Residual	5 days/week	No Change	BPJ
Ammonia Nitrogen	Quarterly	No Change	Criterion 2
Toxicity, Chronic	Quarterly	No Change	BPJ
Phenolic Compounds (non-chlorinated)	Semiannually	No Change	Criterion 3
Phenolic Compounds (chlorinated)	Semiannually	No Change	Criterion 3
Endosulfan	Semiannually	No Change	Criterion 3
Endrin	Semiannually	No Change	Criterion 3
HCH	Semiannually	No Change	Criterion 3
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	Semiannually	~~Quarterly~~No Change	BPJ
Acrolein	Semiannually	No Change	Criterion 3
Antimony	**Quarterly**	**Semiannually**	**BPJ**
Bis(2-chloroethoxy) methane	Semiannually	No Change	Criterion 3
Bis(2-chloroisopropyl) ether	Semiannually	No Change	Criterion 3
Chlorobenzene	Semiannually	No Change	Criterion 3
Chromium (III)	**Quarterly**	**Semiannually**	**BPJ**
Di-n-butyl-phthalate	Semiannually	No Change	BPJ
Dichlorobenzenes	Semiannually	No Change	Criterion 3
Diethyl phthalate	Semiannually	No Change	BPJ
Dimethyl phthalate	Semiannually	No Change	Criterion 3
4,6-dinitro-2-methylphenol	Semiannually	No Change	Criterion 3
2,4-Dinitrophenol	Semiannually	No Change	Criterion 3
Ethylbenzene	Semiannually	No Change	Criterion 3
Fluoranthene	Semiannually	No Change	Criterion 3

Parameter	Monitoring Frequency (2013 Order)	Monitoring Frequency (~~2018~~ 2019 Order)	Basis
Hexachlorocyclopentadiene	Semiannually	No Change	Criterion 3
Nitrobenzene	Semiannually	No Change	Criterion 3
Thallium	Semiannually	No Change	Criterion 3
Toluene	Semiannually	No Change	Criterion 3
Tributyltin	Semiannually	No Change	Criterion 3
1,1,1-Trichloroethane	Semiannually	No Change	Criterion 3
Acrylonitrile	Semiannually	No Change	Criterion 3
Aldrin	Semiannually	No Change	Criterion 3
Benzene	Semiannually	No Change	Criterion 3
Benzidine	Semiannually	No Change	Criterion 3
Beryllium	Semiannually	No Change	Criterion 3
Bis(2-chloroethyl) ether	Semiannually	No Change	Criterion 3
Bis(2-ethylhexyl) phthalate	**Monthly**	**Quarterly**	**Criterion 2**
Carbon tetrachloride	Semiannually	No Change	Criterion 3
Chlordane	Semiannually	No Change	Criterion 3
Chlorodibromomethane	Semiannually	No Change	Criterion 3
Chloroform	Semiannually	No Change	BPJ
DDT	~~Quarterly~~Semiannually	No Change	Criterion 3
1,4-dichlorobenzene	Semiannually	No Change	Criterion 3
3,3'-dichlorobenzidine	Semiannually	No Change	Criterion 3
1,2-Dichloroethane	Semiannually	No Change	Criterion 3
1,1-Dichloroethylene	Semiannually	No Change	Criterion 3
Dichlorobromomethane	Semiannually	No Change	Criterion 3
Dichloromethane	Semiannually	No Change	Criterion 3
1,3-Dichloropropene	Semiannually	No Change	Criterion 3
Dieldrin	Semiannually	No Change	Criterion 3
2,4-dinitrotoluene	Semiannually	No Change	Criterion 3
1,2-diphenylhydrazine	Semiannually	No Change	Criterion 3
Halomethanes	Semiannually	No Change	Criterion 3
Heptachlor	Semiannually	No Change	Criterion 3
Heptachlor epoxide	Semiannually	No Change	Criterion 3
Hexachlorobenzene	Semiannually	No Change	Criterion 3
Hexachlorobutadiene	Semiannually	No Change	Criterion 3
Hexachloroethane	Semiannually	No Change	Criterion 3
Isophorone	Semiannually	No Change	Criterion 3
N-Nitrosodimethylamine	Semiannually	No Change	Criterion 3
N-Nitrosodi-N-propylamine	Semiannually	No Change	Criterion 3

Parameter	Monitoring Frequency (2013 Order)	Monitoring Frequency (~~2018~~ 2019 Order)	Basis
N-Nitrosodiphenylamine	Semiannually	No Change	Criterion 3
PAHs	Semiannually	No Change	Criterion 3
PCBs as Aroclors	Semiannually	No Change	Criterion 3
TCDD Equivalents	Monthly	No Change	Criterion 1
1,1,2,2-Tetrachloroethane	Semiannually	No Change	Criterion 3
Tetrachloroethylene	Semiannually	No Change	Criterion 3
Toxaphene	Semiannually	No Change	Criterion 3
Trichloroethylene	Semiannually	No Change	Criterion 3
1,1,2-Trichloroethane	Semiannually	No Change	Criterion 3
2,4,6-Trichlorophenol	Semiannually	No Change	Criterion 3
Vinyl chloride	Semiannually	No Change	Criterion 3
Methyl-tert-butyl-ether	Semiannually	No Change	BPJ

C. Whole Effluent Toxicity Testing Requirements

The rationale for WET has been discussed extensively in Section IV.C.6. of this Fact Sheet.

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Ocean Plan and the Basin Plan. The conceptual framework for the receiving water program has three components that comprise a range of spatial and temporal scales: (a) core monitoring; (b) regional monitoring; and (c) special studies.

a. Core monitoring is local in nature and focused on monitoring trends in water quality and the effect of the point source discharge on the receiving water. This includes effluent monitoring as well as many aspects of receiving water monitoring. In the monitoring program described below these core components are typically referred to as local monitoring.

b. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations and is not specified in this Order.

The Discharger is encouraged to participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Water Board. The procedures and time lines for the Regional Water Board approval shall be the same as detailed for special studies, below.

c. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes around the discharge, or development of monitoring techniques, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle. POTW ocean dischargers in the Los Angeles region are normally required to consult annually to determine the need for special studies but the City of Avalon is exempt from this requirement due to the low discharge flow rate.

d. The receiving water monitoring program contains the following core and regional components: shoreline and offshore water quality monitoring; and benthic infauna monitoring. Local and regional survey questions, sampling designs, monitoring locations, and other specific monitoring requirements are detailed in the MRP.

2. Groundwater (NOT APPLICABLE)

E. Other Monitoring Requirements

1. Outfall and Diffuser Inspection

This survey investigates the condition of the outfall structure to determine if the structures are in serviceable condition to ensure their continued safe operation. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

2. Biosolids and Sludge Management

Attachment H establishes monitoring and reporting requirements for the storage, handling and disposal practices of biosolids/sludge generated from the operation of this POTW.

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

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

IX. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Avalon WWTF. As a step in the WDR adoption process, the Regional Water Board

staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional 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 the following:~~

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

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Regional Water Board at the address on the cover page of this Order or by email submitted to steven.webb@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on January 17, 2019.

C. Public Hearing

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

Date:	February 14, 2018
Time:	9:00 a.m.
Location:	~~City of Simi Valley Council of Chambers~~Port of Long Beach Hearing Room ~~2929 Tapo Canyon Road~~4801 Airport Plaza Drive ~~Simi Valley, California 93063~~Long Beach, CA 90815

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

D. Reconsideration of Waste Discharge Requirements

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

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

Or by email at waterqualitypetitions@waterboards.ca.gov

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

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Steven Webb at (213) 576-6793.

ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN OUTLINE INFORMATION AND DATA ACQUISITION

I. Gather and Review Information and Data

A. FOTW Operations and Performance

B. FOTW Influent

C. Effluent Data including Toxicity Results

D. Sludge (Biosolids) Data

II. Evaluate Facility Performance

III. Conduct Toxicity Identification Evaluation (TIE)

IV. Evaluate Sources and In-Plant Controls

V. Implement Toxicity Control Measures

VI. Conduct Confirmatory Toxicity Testing

ATTACHMENT H – BIOSOLIDS AND SLUDGE MANAGEMENT

BIOSOLIDS USE AND DISPOSAL REQUIREMENTS

(Note: "Biosolids" refers to non-hazardous sewage sludge as defined in 40 CFR §503.9. Sewage sludge that is hazardous, as defined in 40 CFR part 261, must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).)

I. General Requirements

A. All biosolids generated by the Discharger shall be reused or disposed of in compliance with the applicable portions of:

1. 40 CFR part 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated; 40 CFR § 503 Subpart B (land application) applies to biosolids placed on the land for the purposes of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR § 503 Subpart C (surface disposal) applies to biosolids placed on land for disposal.
2. 40 CFR part 258: for biosolids disposed of in a municipal solid waste landfill.
3. 40 CFR part 257: for all biosolids use and disposal practices not covered under 40 CFR parts 258 or 503.

B. The Discharger is responsible for assuring that all biosolids from its facility are used or disposed of in accordance with 40 CFR part 503, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, reuse, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under 40 CFR part 503.

C. Duty to mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which may adversely impact human health or the environment.

D. No biosolids shall be allowed to enter wetland or other waters of the United States.

E. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.

F. Biosolids treatment, storage, use or disposal shall not create a nuisance such as objectionable odors or flies.

G. The Discharger shall assure that haulers transporting biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.

H. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all the requirements for surface disposal under 40 CFR part 503 Subpart C, or must submit a written request to USEPA with the information in part 503.20 (b), requesting permission for longer temporary storage.

I. Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR part 761.

J. Any off-site biosolids treatment, storage, use, or disposal site operated by the Discharger within Region 4 (Los Angeles Region of RWQCB) that is not subject to its own Waste Discharge Requirements shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.

K. There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than 3/8 inches are removed.

II. Inspection and Entry

The USEPA or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:

A. enter upon all premises where biosolids are produced by the Discharger and all premises where Permittee biosolids are further treated, stored, used, or disposed, either by the Permittee or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal;

B. have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR part 503, by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal; and

C. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the production of biosolids and further treatment, storage, use, or disposal by the Discharger or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.

III. Monitoring

A. Biosolids shall be monitored for the metals required in 40 CFR § 503.16 (for land application) or § 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solids Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(b}(4}, at the following minimum frequencies:

Amount of Sewage Sludge (Metric Tons per 365-day period)	Frequency
Greater than 0 but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter
Equal to or greater than 1,500 but less than 15,000	Once per 60 days
Equal to or greater than 15,000	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 pollutant per kilogram biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for organic nitrogen, ammonia nitrogen, and nitrate nitrogen at the frequencies required above.

B. Biosolids shall be monitored for the following constituents at the frequency stipulated in 40 CFR § 503.16: arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled for regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile for that period.

C. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with > 5 mgd influent flow shall sample biosolids for pollutants listed under section 307 (a) of the Clean Water Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and Federal Facilities with > 5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of < 1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.

D. The biosolids shall be tested annually or more frequently if necessary, to determine hazardousness in accordance with California Law.

IV. Pathogen and Vector Control

A. Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR § 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.

B. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens," the Permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR § 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform – 6 hours when cooled to <4 degrees Celsius (extended to 24 hours when cooled to <4 degrees Celsius for Class A composted, Class B aerobically digested, and Class B anaerobically digested sample types); Salmonella spp. Bacteria – 24 hours when cooled to <4 degrees Celsius (unless using Method 1682 – 6 hours when cooled to 10 degrees Celsius); enteric viruses – 6 hours when cooled to <10 degrees Celsius (extended to one month when cooled to <4 degrees Celsius).

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

V. Surface Disposal

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

VI. Notifications

The Discharger either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements:

A. Notification of Non-compliance

The Discharger shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of any noncompliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.

B. Interstate Notification

If bulk biosolids are shipped to another State or to Indian Lands, the Discharger must send written notice within 60 days of the shipment and prior to the initial application of bulk biosolids to the permitting authorities in the receiving State or Indian Land (the USEPA Regional Office for the area and the State/Indian authorities).

C. Land Application Notification

A reuse/disposal plan shall be submitted to USEPA Region IX Coordinator and, in the absence of other state or regional reporting requirements, to the state permitting agency, prior to the use or disposal of any biosolids from this facility to a new or previously unreported site. The plan shall be submitted by the land applier of the biosolids and shall include a description and a

topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a list of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed nitrogen loadings to be used for the crops, a determination of agronomic rates, and a groundwater monitoring plan or a description of why groundwater monitoring is not required.

If the biosolids do not meet 40 CFR § 503.13 Table 3 metals concentration limits, the Permittee must require their land applier to contact the state permitting authority to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 40 CFR § 503.12(b)(2) have been applied to the site since July 20, 1993, and, if so, the cumulative amount of pollutants applied to date, and background concentration, if known. The Permittee shall then notify USEPA Region IX Coordinator of this information.

For biosolids that are land applied, the Discharger shall notify the applier in writing of the nitrogen content of the biosolids, and the applier's requirements under 40 CFR part 503, including the requirements that the applier certify that the requirement to obtain information in Subpart A, and that the management practices, site restrictions, and any applicable vector attraction reduction requirements Subpart D have been met. The Permittee shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.

D. Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA and the State. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any state or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

VII. Reporting

The Discharger shall submit an annual biosolids report to USEPA Region IX Biosolids Coordinator by February 19 of each calendar year. The report shall include:

A. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

B. Results of all pollutant monitoring required in the Monitoring Section above. Results must be reported on a 100% dry weight basis.

C. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR § 503.17 and 503.27, and certifications.

D. Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.

E. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).

F. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, deep well injection, or other reuse/disposal methods not covered above, and volumes delivered to each.

G. The Discharger shall submit, or require all parties contracted to manage their biosolids to submit, an annual biosolids report to USEPA Region IX Biosolids Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:

Names and addresses of land appliers and surface disposal site operators, name, location (latitude/longitude), and size (hectares) of site(s), volumes applied/disposed (dry metric tons),

results of any groundwater monitoring; for land application: biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha),calculated plant available nitrogen, dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 40 CFR § 503.12(e)(2), management practices in § 503.14, site restrictions in § 503.32(b)(5) have been met; for biosolids exceeding 40 CFR §503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date; and for closed sites, the date of site closure and certifications of management practiced for three years following site closure.

H. The annual biosolids report shall be submitted to USEPA using USEPA's NPDES Electronic Reporting Tool (NeT) and can be accessed at http://www.epa.gov/compliance/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-tool-net-fact.