

Los Angeles Regional Water Quality Control Board

December 11, 2013

Mr. Ben Harvey
City Manager
City of Avalon
123 Pebbly Beach Road
Avalon, CA 90704

Dear Mr. Harvey:

ADOPTED WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE CITY OF AVALON, AVALON WASTEWATER TREATMENT FACILITY (NPDES NO. CA0054372, CI NO. 0066)

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public hearing held on December 5, 2013, reviewed the revised tentative requirements, considered all the factors in the case, and adopted Order No. R4-2013-0182. Order No. R4-2013-0182 serves as your NPDES permit and expires on January 31, 2019. Section 13376 of the California Water Code requires that an application and Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date. A copy of the adopted order and attachments are enclosed.

The complete adopted Order and attachments will be sent only to the Discharger. However, these documents are available on the Regional Water Board's website for your review. The Regional Water Board's web address is www.waterboards.ca.gov/losangeles/.

The Order includes changes made listed below as an outgrowth of the deliberations at the meeting and read into the record at the public hearing on December 5, 2013.

1. Order: Table 3. Administration Information, Third Row
This Order shall expire on: January 31, 2019
2. Order: Section IV. A. 1. d. i. a) and b), Pages 15-16
 - d. Consistent with Resolution No. R4-2012-0077, the Cease and Desist Order (CDO) and TMDL adopted for Avalon Beach on April 5, 2012:
 - i. In accordance with section IX.A, section 27 of the CDO/TMDL, the City is required to achieve the following milestones and targets for WLAs assigned to the POTW and its collection system:
 - a) For discharges from the POTW, there shall be no exceedances of the numeric targets set forth in the CDO/TMDL upon the effective date of this Order; and,

- b) For discharges from the collection system, by June 30, 2015, there shall be no discharge resulting in detectable levels of fecal indicator bacteria identified as numeric targets as set forth in the CDO/TMDL.

If you have any questions, please contact me at (213) 576-6616.

Sincerely,



M. David Hung, P.E., Chief
Watershed Regulatory Section

Enclosures

MAILING LIST

Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
U.S. Army Corps of Engineers
NOAA, National Marine Fisheries Service
California Coastal Commission, South Coast Region
Department of Interior, U.S. Fish and Wildlife Service
Frances McChesney, State Water Resources Control Board, Office of Chief Counsel
Department of Fish and Game, Region 5
California State Parks and Recreation
State Coastal Conservancy
California Department of Public Health
Heal the Bay
Environment Now
Environ Strategy, David Clary
Sierra Club
Surfriders Foundation
American Ocean Campaign
Los Angeles Waterkeeper
Los Angeles County Department of Public Works
Los Angeles Regional Water Board
City of Avalon
City of Los Angeles
Los Angeles County Sanitation District
Los Angeles County Department of Public Health
Natural Resources Defense Council
Southern California Coastal Water Research Project

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

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ORDER NO. R4-2013-0182
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 as set forth in this Order:

Table 1. Discharger Information

| | |
|-------------------------|---|
| Discharger | City of Avalon (Discharger) |
| Name of Facility | Avalon Wastewater Treatment Facility (WWTF), Avalon |
| Facility Address | 123 Pebbly Beach Road |
| | Avalon, CA 90704 |
| | Los Angeles County |

Table 2. Discharge Location

| Discharge Point | Effluent Description | Discharge Point Latitude | Discharge Point Longitude | Receiving Water |
|------------------------|------------------------------|---------------------------------|----------------------------------|------------------------|
| 001 | Secondary treated wastewater | 33 ^o , 20', 19" N | 118 ^o , 18', 40" W | Pacific Ocean |

Table 3. Administrative Information

| | |
|--|---|
| This Order was adopted by the Regional Water Quality Control Board on: | December 5, 2013 |
| This Order shall become effective on: | February 1, 2014 |
| This Order shall expire on: | January 31, 2019 |
| The Discharger shall file a Report of Waste Discharge as an application for renewal of waste discharge requirements in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System permit in accordance with Title 40, Section 122.21(d) of the Code of Federal regulations no later than: | 180 days prior to the Order expiration date |
| The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as follows: | Minor |

I, Samuel Unger, 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 **December 5, 2013**.



Samuel Unger, P.E., Executive Officer

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I. FINDINGS

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

- A. Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (CWC) (commencing with section 13370). It shall serve as a National Pollutant Discharges Elimination System (NPDES) permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260).
- 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 J are also incorporated into this Order.
- C. 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 notification are provided in the Fact Sheet of this Order.
- D. 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 of this Order.

THEREFORE, IT IS HEREBY ORDERED, that this Order supercedes Order No. R4-2008-0028 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

II. DISCHARGE PROHIBITIONS

A. Ocean Plan Discharge Prohibition

1. The discharge of any radiological, chemical or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
2. Waste shall not be discharged to designated Areas of Special Biological Significance.
3. 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 waste stream that discharges to the ocean is prohibited by the Ocean Plan. Discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.

It is the policy of the State Water Resources Control Board (State Water Board) that 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. Therefore, if federal law is amended to permit such discharge, which could affect California water, the State Water Board may consider requests for exceptions to this section under chapter III.I of the Ocean Plan, provided further that an Environmental Impact Report on the proposed project shows clearly that any available alternative disposal method will have a greater adverse environmental impact than the proposed project.

4. The by-passing of untreated or partially treated wastes containing concentrations of pollutants in excess of those of Table 1 or Table 2 of the Ocean Plan to the ocean is prohibited.
- B.** Wastes discharged from Discharge Point 001 shall be limited to secondary treated wastewater produced at the Avalon Waste Water Treatment Facility (Avalon WWTF or Facility), located in Avalon, California on Santa Catalina Island. Discharge of wastewater at a location different from Discharge Point 001 in this Order is prohibited.

III. EFFLUENT LIMITATIONS, PERFORMANCE GOALS, AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations and Performance Goals – Discharge Point 001

1. Final Effluent Limitations and Performance Goals – Discharge Point 001

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at the interim monitoring location EFF-001 as described in the attached Monitoring and Reporting Program (MRP; Attachment E).

The mass emission rates collected from EFF-001 shall be calculated as the actual concentration in the secondary-treated effluent multiplied by the actual flow in the secondary-treated effluent and a conversion factor.

- b. The performance goals for Discharge Point 001 are also given below. The listed performance goals are not enforceable effluent limitations or standards. However, the Discharger shall maintain, if not improve, its treatment efficiency. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted. Any exceedance 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 within 90 days to the Regional Water Board 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.

Table 4. Effluent Limitations and Performance Goals

| Parameter | Units | Effluent Limitations ¹ | | | | | Performance Goals |
|--|----------------|-----------------------------------|----------------|---------------|-----------------------|-----------------------|-------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Average Monthly |
| Major Wastewater Constituents | | | | | | | |
| Biochemical Oxygen Demand (BOD) 5-day @ 20°C | mg/L | 20 | 35 | -- | -- | -- | -- |
| | lbs/day | 200 | 350 | -- | -- | -- | -- |
| Total Suspended Solids (TSS) | mg/L | 30 | 45 | -- | -- | -- | -- |
| | lbs/day | 300 | 450 | -- | -- | -- | -- |
| pH | standard units | -- | -- | -- | 6.0 | 9.0 | -- |
| Oil and Grease | mg/L | 25 | 40 | -- | -- | 75 | -- |
| | lbs/day | 250 | 400 | -- | -- | -- | -- |

¹ The mass emission rates are based on the plant design flow rate of 1.2 million gallons per day (mgd), and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day, or Flow (mgd) x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

| Parameter | Units | Effluent Limitations ¹ | | | | | Performance Goals |
|--------------------------------------|---------|-----------------------------------|----------------|---------------|-----------------------|-----------------------|-------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Average Monthly |
| Settleable Solids | ml/L | 1.0 | 1.5 | -- | -- | 3.0 | -- |
| Turbidity | NTU | 75 | 100 | -- | -- | 225 | -- |
| Marine Aquatic Life Toxicants | | | | | | | |
| Arsenic ² | µg/L | -- | -- | -- | -- | -- | 1.7 |
| Cadmium ² | µg/L | -- | -- | -- | -- | -- | 0.075 |
| Chromium (VI) ² | µg/L | -- | -- | -- | -- | -- | 0.04 |
| Copper ² | µg/L | -- | -- | -- | -- | -- | 22 |
| Lead ² | µg/L | -- | -- | -- | -- | -- | 1.2 |
| Mercury ² | µg/L | -- | -- | -- | -- | -- | 1.0 |
| Nickel ² | µg/L | -- | -- | -- | -- | -- | 2.1 |
| Selenium ² | µg/L | -- | -- | -- | -- | -- | 7.8 |
| Silver ² | µg/L | -- | -- | -- | -- | -- | 0.12 |
| Zinc ² | µg/L | -- | -- | -- | -- | -- | 66 |
| Cyanide | µg/L | 61 | -- | 240 | -- | 610 | 20 |
| | lbs/day | 0.61 | -- | 2.4 | -- | -- | -- |
| Total chlorine residual | µg/L | 120 | -- | 490 | -- | 3700 | 102 |
| | lbs/day | 1.2 | -- | 4.9 | -- | -- | -- |
| Ammonia as N | mg/L | -- | -- | -- | -- | -- | 13 |
| Phenolic compounds (non-chlorinated) | µg/L | -- | -- | -- | -- | -- | 5 |
| Phenolic compounds (chlorinated) | µg/L | 61 | -- | 240 | -- | 610 | 0.99 |
| | lbs/day | 0.61 | -- | 2.4 | -- | -- | -- |
| Endosulfan | µg/L | -- | -- | -- | -- | -- | 0.005 |
| HCH | µg/L | 0.24 | -- | 0.49 | -- | 0.73 | 0.005 |
| | lbs/day | 0.0024 | -- | 0.0049 | -- | -- | -- |
| Endrin | µg/L | 0.12 | -- | 0.24 | -- | 0.37 | 0.005 |
| | lbs/day | 0.0012 | -- | 0.0024 | -- | -- | -- |
| Chronic toxicity | TUc | -- | -- | 61 | -- | -- | 18 |
| Radioactivity | | | | | | | |
| Gross alpha | PCi/L | -- | -- | 15 | -- | -- | -- |
| Gross beta | PCi/L | -- | -- | 50 | -- | -- | -- |

² Represents total recoverable metals value.

| Parameter | Units | Effluent Limitations ¹ | | | | | Performance Goals |
|---|---------|-----------------------------------|----------------|---------------|-----------------------|-----------------------|-------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Average Monthly |
| 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 – Non Carcinogens | | | | | | | |
| Acrolein | µg/L | -- | -- | -- | -- | -- | 10 |
| Antimony | µg/L | -- | -- | -- | -- | -- | 0.31 |
| Bis(2-chloroethoxy) methane | µg/L | -- | -- | -- | -- | -- | 1.7 |
| Bis(2-chloroisopropyl) ether | µg/L | -- | -- | -- | -- | -- | 0.81 |
| Chlorobenzene | µg/L | -- | -- | -- | -- | -- | 0.3 |
| Chromium (III) | µg/L | -- | -- | -- | -- | -- | 1.3 |
| Di-n-butyl-phthalate | µg/L | -- | -- | -- | -- | -- | 0.91 |
| Dichlorobenzenes | µg/L | -- | -- | -- | -- | -- | 0.95 |
| Diethyl phthalate | µg/L | -- | -- | -- | -- | -- | 0.86 |
| Dimethyl phthalate | µg/L | -- | -- | -- | -- | -- | 0.97 |
| 2-Methyl-4,6-dinitrophenol | µg/L | -- | -- | -- | -- | -- | 25 |
| 2,4-Dinitrophenol | µg/L | -- | -- | -- | -- | -- | 0.83 |
| Ethyl benzene | µg/L | -- | -- | -- | -- | -- | 0.26 |
| Fluoranthene | µg/L | -- | -- | -- | -- | -- | 0.03 |
| Hexachlorocyclopentadiene | µg/L | -- | -- | -- | -- | -- | 0.9 |
| Nitrobenzene | µg/L | -- | -- | -- | -- | -- | 0.95 |
| Thallium | µg/L | -- | -- | -- | -- | -- | 1 |
| Toluene | µg/L | -- | -- | -- | -- | -- | 0.2 |
| Tributyltin | µg/L | 0.085 | -- | -- | -- | -- | 0.04 |
| | lbs/day | 0.00085 | -- | -- | -- | -- | -- |
| 1,1,1-Trichloroethane | µg/L | -- | -- | -- | -- | -- | 0.2 |
| Human Health Toxicants – Carcinogens | | | | | | | |
| Acrylonitrile | µg/L | 6.1 | -- | -- | -- | -- | 0.7 |
| | lbs/day | 0.061 | -- | -- | -- | -- | -- |
| Aldrin | µg/L | 0.0013 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000013 | -- | -- | -- | -- | -- |

| Parameter | Units | Effluent Limitations ¹ | | | | | Performance Goals |
|--|---------|-----------------------------------|----------------|---------------|-----------------------|-----------------------|-------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Average Monthly |
| Benzene | µg/L | -- | -- | -- | -- | -- | 0.2 |
| Benzidine | µg/L | 0.0042 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000042 | -- | -- | -- | -- | -- |
| Beryllium | µg/L | 2.0 | -- | -- | -- | -- | 0.3 |
| | lbs/day | 0.020 | -- | -- | -- | -- | -- |
| Bis(2-chloroethyl) ether | µg/L | 2.8 | -- | -- | -- | -- | 0.95 |
| | lbs/day | 0.028 | -- | -- | -- | -- | -- |
| Bis(2-ethylhexyl) phthalate | µg/L | 210 | -- | -- | -- | -- | 25 |
| | lbs/day | 2.1 | -- | -- | -- | -- | -- |
| Carbon tetrachloride | µg/L | -- | -- | -- | -- | -- | 0.3 |
| Chlordane | µg/L | 0.0014 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000014 | -- | -- | -- | -- | -- |
| Chlorodibromomethane | µg/L | -- | -- | -- | -- | -- | 0.4 |
| Chloroform | µg/L | -- | -- | -- | -- | -- | 0.3 |
| DDT | µg/L | 0.010 | -- | -- | -- | -- | 0.004 |
| | lbs/day | 0.00010 | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | µg/L | -- | -- | -- | -- | -- | 0.93 |
| 3,3'-Dichlorobenzidine | µg/L | 0.49 | -- | -- | -- | -- | -- |
| | lbs/day | 0.0049 | -- | -- | -- | -- | -- |
| 1,2-Dichloroethane | µg/L | -- | -- | -- | -- | -- | 0.3 |
| 1,1-Dichloroethylene | µg/L | -- | -- | -- | -- | -- | 0.3 |
| Bromodichloromethane | µg/L | -- | -- | -- | -- | -- | 0.3 |
| Dichloromethane | µg/L | -- | -- | -- | -- | -- | 0.8 |
| 1,3-Dichloropropene | µg/L | -- | -- | -- | -- | -- | 0.3 |
| Dieldrin | µg/L | 0.0024 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000024 | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | µg/L | -- | -- | -- | -- | -- | 0.96 |
| 1,2-Diphenylhydrazine | µg/L | 9.8 | -- | -- | -- | -- | 0.9 |
| | lbs/day | 0.098 | -- | -- | -- | -- | -- |
| Halomethanes | µg/L | -- | -- | -- | -- | -- | 0.46 |
| Human Health Toxicants –Carcinogens | | | | | | | |
| Heptachlor | µg/L | 0.0031 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000031 | -- | -- | -- | -- | -- |
| Heptachlor epoxide | µg/L | 0.0012 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000012 | -- | -- | -- | -- | -- |
| Hexachlorobenzene | µg/L | 0.013 | -- | -- | -- | -- | -- |
| | lbs/day | 0.00013 | -- | -- | -- | -- | -- |

| Parameter | Units | Effluent Limitations ¹ | | | | | Performance Goals |
|---------------------------|---------|-----------------------------------|----------------|---------------|-----------------------|-----------------------|-------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Average Monthly |
| Hexachlorobutadiene | µg/L | -- | -- | -- | -- | -- | 1 |
| Hexachloroethane | µg/L | -- | -- | -- | -- | -- | 1 |
| Isophorone | µg/L | -- | -- | -- | -- | -- | 0.93 |
| N-Nitrosodimethylamine | µg/L | -- | -- | -- | -- | -- | 0.88 |
| N-Nitrosodi-N-propylamine | µg/L | 23 | -- | -- | -- | -- | 0.97 |
| | lbs/day | 0.23 | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | µg/L | -- | -- | -- | -- | -- | 0.83 |
| PAHs | µg/L | 0.54 | -- | -- | -- | -- | 0.03 |
| | lbs/day | 0.0054 | -- | -- | -- | -- | -- |
| PCBs ³ | µg/L | 0.0012 | -- | -- | -- | -- | -- |
| | lbs/day | 0.000012 | -- | -- | -- | -- | -- |
| TCDD equivalents | µg/L | 0.00000024 | -- | -- | -- | -- | 0.00000015 |
| | lbs/day | 2.4 x 10 ⁻⁹ | -- | -- | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | µg/L | -- | -- | -- | -- | -- | 0.6 |
| Tetrachloroethylene | µg/L | -- | -- | -- | -- | -- | 0.2 |
| Toxaphene | µg/L | 0.013 | -- | -- | -- | -- | -- |
| | lbs/day | 0.00013 | -- | -- | -- | -- | -- |
| Trichloroethylene | µg/L | -- | -- | -- | -- | -- | 0.3 |
| 1,1,2-Trichloroethane | µg/L | -- | -- | -- | -- | -- | 0.4 |
| 2,4,6-Trichlorophenol | µg/L | 18 | -- | -- | -- | -- | 0.97 |
| | lbs/day | 0.18 | -- | -- | -- | -- | -- |
| Vinyl chloride | µg/L | -- | -- | -- | -- | -- | 0.3 |

- c. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and TSS shall not be less than 85 percent.
- d. The temperature of wastes discharged shall not exceed 100°F, which takes into account the very large dilution credit based upon Best Professional Judgment (BPJ).
- e. 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; and,
- v. Materials that result in aesthetically undesirable discoloration of the ocean surface.
- f. Waste effluents from the Facility shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.
- g. The location of waste discharge from the Facility shall assure that:
 - i. Pathogenic organism and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports.
 - ii. Natural water quality conditions are not altered in areas designated as being areas of special biological significance or areas that existing marine laboratories use as a source of seawater.
 - iii. Maximum protection is provided to the marine environment.
 - iv. Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used.

B. Reclamation Specifications

In accordance with statewide policies concerning water reclamation, this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The 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. The Discharger shall submit a feasibility study to the Regional Water Board 180 days after the effective date of this Order. The Discharger shall submit an update to this feasibility study and as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

IV. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

Receiving water limitations are based on water quality objectives contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan) and compliance with such limitations are a required part of this Order. The Discharger shall not cause the following at Pebbly Beach, Avalon Beach, or in the Pacific Ocean. The Discharger shall not cause violation of the following water quality objectives. Compliance with these water quality objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed.

1. Bacterial Characteristics

a. Water Contact Standards

i. State/Regional Water Board Water Contact Standards

In marine water designated for water contact recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water outside the initial dilution zone.

Geometric Mean Limits

- (1) Total coliform density shall not exceed 1,000/100 ml.
- (2) Fecal coliform density shall not exceed 200/100 ml.
- (3) Enterococcus density shall not exceed 35/100 ml.

Single Sample Maximum (SSM)

- (1) Total coliform density shall not exceed 10,000/100 ml.
- (2) Fecal coliform density shall not exceed 400/100 ml.
- (3) Enterococcus density shall not exceed 104/100 ml.
- (4) Total coliform density shall not exceed 1,000/100 ml, when the fecal coliform/total coliform ratio exceeds 0.1.

ii. California Department of Public Health (CDPH) Standards

Pursuant to Assembly Bill 411 (Statutes of 1997, Chapter 765), CDPH established regulations for public ocean beaches and ocean water-contact sports areas. These regulations include minimum health protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas, monitoring requirements, and actions to be taken when standards are exceeded. The bacteriological standards are found in the California Code of Regulations (CCR), title 17, section 7958, and are identical to the water contact standards contained in subsection i. immediately above. When a public beach or public water contact sports area fails to meet these standards, CDPH 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. The CDPH 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), CDPH imposes the same standards as contained in title 17, CCR, and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

b. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the waste discharged shall not cause the following bacterial standards to be exceeded:

The median total coliform density for any 6-month period shall not exceed 70 per 100 ml, and not more than 10 percent of the samples during any 6-month period shall exceed 230 per 100 ml.

c. Implementation Provisions for Bacterial Characteristics

- i. If the Discharger is required to conduct receiving water monitoring for bacterial characteristics in the future, then, at a minimum, weekly samples shall be collected from each site. The geometric mean values should be calculated using the five most recent sample results. If sampling occurs more frequently than weekly, all samples taken during the previous 30-day period shall be used to calculate the geometric mean.
- ii. If a single sample exceeds any of the SSM standards, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued until the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities.

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

- iii. It is state policy that the geometric mean bacterial objectives are strongly preferred for use in water body assessment decisions (for example, in developing the CWA section 303(d) list of impaired waters) because the geometric mean objectives are a more reliable measure of long-term water body conditions. In making assessment decisions on bacterial quality, SSM data must be considered together with any available geometric mean data. The use of only SSM bacterial data is generally inappropriate unless there is a limited data set, the water is subject to short-term spikes in bacterial concentrations, or other circumstances justify the use of only SSM data.
- iv. For monitoring stations outside of the defined water-contact recreation zone (REC-1), samples will be analyzed for total coliform only.

d. Consistent with Resolution No. R4-2012-0077, the Cease and Desist Order (CDO) and TMDL adopted for Avalon Beach on April 5, 2012:

- i. In accordance with section IX.A, section 27 of the CDO/TMDL, the City is required to achieve the following milestones and targets for WLAs assigned to the POTW and its collection system:
 - a) For discharges from the POTW, there shall be no exceedances of the numeric targets set forth in the CDO/TMDL upon the effective date of this Order; and,

- b) For discharges from the collection system, by June 30, 2015, there shall be no discharge resulting in detectable levels of fecal indicator bacteria identified as numeric targets as set forth in the CDO/TMDL.

2. Physical Characteristics

The waste discharged shall not:

- a. Cause floating particulates and oil and grease to be visible;
- b. Cause aesthetically undesirable discoloration of the ocean surface;
- c. Significantly reduce the transmittance of natural light at any point outside the initial dilution zone; and,
- d. Change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

3. 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 materials;
- b. Change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally as a result of the discharge pH;
- c. Cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;
- d. Cause the concentration of substances set forth in chapter II, Table 2 of the 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; and,
- f. Contain nutrients at levels that will cause objectionable aquatic growth or degrade indigenous biota.

4. 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; and,

- 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.

5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations – Not Applicable

V. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **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 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 is found invalid, the remainder of this Order shall not be affected.
 - g. Nothing in this permit 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 permit 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.** The Discharger must 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 programs developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
- j.** Discharge of wastes to any point other than specifically described in this Order is prohibited, and constitutes a violation thereof.
- k.** 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.
- l.** 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.
- m.** 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 of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
- n.** A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
- o.** If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- p.** 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.
- 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.** 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.
- s.** 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.
- t.** Violation of any of the provisions of this Order may subject the Discharger to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- 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.** The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation, or some combination thereof, depending on the violation or the combination of violations.
- 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 40 CFR part 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 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, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

- z.** 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 shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000), imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for 16, 20, or 24 months, or by both that fine and imprisonment. For a subsequent conviction, such a person shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) per day of violation, by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for two, three, or four years, or by both that fine and imprisonment.

- aa.** 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, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Regional Water Board by telephone (213) 576-6616, or electronically at dhung@waterboards.ca.gov, 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.

B. Monitoring and Reporting Program (MRP) Requirements

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

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 an Ocean Plan Table 1 water quality objective.
- b.** 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.

- 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.
- c.** 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.
 - d.** This Order may be reopened and modified to incorporate new limits based on future reasonable potential analyses to be conducted based on on-going monitoring data collected by the Discharger and evaluated by the Regional Water Board.
 - e.** This Order may be reopened and modified, in accordance with the provisions set forth in title 40, Code of Federal Regulations (40 CFR) parts 122 and 124, to incorporate requirements for the implementation of the watershed management approach.
 - f.** This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 and 124, to include new Minimum Levels (ML).
 - g.** This Order may be reopened and modified to add or revise effluent limitations as a result of future Basin Plan Amendments or the adoption of a TMDL.
 - h.** 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 contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
 - i.** This Order may be modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR parts 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.
 - j.** The waste discharged shall not cause a violation of any applicable water quality standard for receiving waters. 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 incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Regional Water Board Executive Officer determines that a pretreatment program is necessary due to any new introduction of pollutants into the POTW or any substantial change in the volume or character of pollutants being introduced.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Special Study

- i. Constituents of Emerging Concern (CECs) in the Effluent
 - (a) The Discharger shall conduct a special study to investigate the CECs in the effluent discharge. Within six months of the effective date of this Order, the Discharger shall submit to the Executive Officer a CEC special study work plan for approval. Upon approval, the Discharger shall implement the work plan.
 - (b) The Discharger shall follow the requirements of the work plan as discussed in the MRP and the Fact Sheet.
- ii. Annual Special Studies
 - (a) Ocean POTW dischargers in the Los Angeles Region normally are required to consult annually to determine the need for special studies, but City of Avalon is not subject to this requirement due to small size of discharge.

b. Toxicity Reduction Requirements

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), or the most current version, as guidance. At a minimum, the initial investigation TRE work plan must contain the provisions in Attachment G. This work plan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

- i. 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;
- ii. 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,
- iii. 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).

If the effluent toxicity test result exceeds the limitation, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within five days of receipt of the test results exceeding the toxicity limitation.

If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a TRE.

If results of the implementation of the facility's initial investigation TRE work plan (as described above) indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE work plan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE.

Detailed toxicity testing and reporting requirements are contained in section V of the MRP (Attachment E) and Attachment G.

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 month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
- ii. The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; 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 which 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 a 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)

Within ninety (90) days of the effective date of this Order the Discharger shall submit an updated SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State to the Regional Water Board. The SWPPP shall be developed in accordance with the requirements in Storm Water Pollution Prevention Requirements (Attachment H). If all storm water is captured and treated on-site and no storm water is discharged or allowed to run off-site from the facility, the Discharger shall provide certification with descriptions of on-site storm water management to the Regional Water Board.

b. Spill Clean-up Contingency Plan (SCCP)

Within ninety days of the effective date of this Order, the Discharger is required to submit a SCCP, which describes the activities and protocols to address clean-up of spills,

overflows, and bypasses of untreated or partially treated 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 include sections on spill clean-up and containment measures, public notification, 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 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. This component of the plan shall be posted on the Regional Water Board website for stakeholder review and comment for 30 days prior to Executive Officer approval.

c. Pollutant Minimization Program (PMP)

Definitions for a reported Minimum Level (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 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; or, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either of the following is true:

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

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.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Sludge Disposal Requirements

- i. All sludge generated at the wastewater treatment plant must be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 CFR part 503. These requirements are enforceable by USEPA.
- ii. The Discharger shall ensure compliance with the requirements in State Water Board Order No. 2004-10-DWQ, *General WDRs 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 Quality Control 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.

- iii. The Discharger shall comply, if applicable, with WDRs issued by other Regional Water Boards to which jurisdiction the biosolids are transported and applied.
- iv. The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, the State Water Board or other Regional Water Board, with respect to municipal sludge or biosolids.

b. Pretreatment Requirements – Not Applicable

- i. Applications for renewal or modification of this Order must contain information about industrial discharges to the POTW pursuant to 40 CFR 122.21(j)(6). Pursuant to 40 CFR 122.42(b) and Provision VII.A of Attachment D, Standard Provisions, of this Order, the Discharger shall provide adequate notice of any new introduction of pollutants or substantial change in the volume or character of pollutants from industrial discharges which were not included in the permit application.
- ii. Pursuant to 40 CFR 122.44(j)(1), the Discharger shall annually identify and report, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR 403.

c. Collection System Requirements

- i. 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)). The Discharger must report any non-compliance (40 CFR part 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR part 122.41(d)). See the Order at Attachment D, subsections I.D, V.E, V.H, and I.C., and the following section of this Order.

6. Spill Reporting Requirements

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 in order 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 Emergency Management Agency (Cal EMA) 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 EMA is (800) 852-7550.
- iii. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its POTWs 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 EMA and the local health officer or the director of environmental health with jurisdiction over the affected waterbody. 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:

- (1) The location, date, and time of the release;
- (2) The water body that received or will receive the discharge;
- (3) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;
- (4) If ongoing, the estimated flow rate of the release at the time of the notification;
- (5) The name, organization, phone number and email address of the reporting representative; and,
- (6) A certification that the State Office of Emergency Services and the local health officer 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.iii, the Discharger shall monitor as required below:

- i. To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the State (including surface and ground waters). The Discharger shall analyze the samples for total and fecal coliform or E. coli, and 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 done on a daily basis from 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 Health Services authorizes cessation of monitoring.

c. Reporting

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

- i. As soon as possible, but not later than twenty-four 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 aanijelo@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that Cal EMA 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:
 - (1) Agency, NPDES No., Order No., and MRP CI No. 0066, if applicable;
 - (2) The location, date, and time of the discharge;
 - (3) The water body that received the discharge;
 - (4) A description of the level of treatment of the sewage or other waste discharged;
 - (5) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;
 - (6) The Cal EMA control number and the date and time that notification of the incident was provided to Cal EMA; and,
 - (7) 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 working days after disclosure of the incident is required. Submission to the Regional Water Board of the 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 a statewide General WDRs for Wastewater Collection System Agencies, 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 V.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

In addition, Regional Water Board expects that the Publicly-Owned Treatment Work's (POTW) owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit; (ii) a MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements; and, (iii) the SSO WDR.

f. Consistency with SSO WDRs

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 SSO 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 Publicly Owned Treatment Works (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 part 122.41 (e)), report any non-compliance (40 CFR part 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR part 122.41(d)).

The requirements contained in this Order in sections V.C.3.b (SCCP Plan section), V.C.4 (Construction, Operation and Maintenance Specifications section), and V.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 Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections V.C.3.b, V.C.4, and V.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 supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative

- g. 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.

VI. 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 effluent limitation and greater than or equal to the RL.

B. Multiple Sample Data

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

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

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

C. Sufficient Sampling and Analysis

Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation. If the analytical result of any single sample (daily discharge) monitored monthly, quarterly, semiannually, or annually, exceeds the average monthly effluent limitation (AMEL), the Discharger shall increase sampling frequency to weekly until compliance with the AMEL is demonstrated. All analytical results shall be reported as specified in the MRP.

D. 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 taken 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. 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 taken, 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.

E. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in seven days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL,

the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week 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 in order to calculate and report a consecutive seven-day average value on Saturday.

F. Maximum Daily Effluent Limitation (MDEL)

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

G. 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 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 taken 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).

H. 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 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 taken 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).

I. 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, an alleged 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 taken. If only a single sample is taken 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 taken, no compliance determination can be made for the six-month median effluent limitation.

J. 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:

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

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

K. 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.

L. 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 RL.

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

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) 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.

N. Mass Emission Rate

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

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

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

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 taken in 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. Qi and Ci are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the N waste streams. Qt is the total flow rate of the combined waste streams.

O. Bacterial Standards and Analysis.

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

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

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 part 136 unless alternate methods have been approved by USEPA pursuant to 40 CFR part 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 part 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.

P. Single Operational Upset

A single operational upset (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 single operational upset 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 purposes 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 purposes 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 CWC section 13385, subdivision (f)(2)

A.
ATTACHMENT A – DEFINITIONS

Acute Toxicity

- a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

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

- b. Lethal Concentration 50% (LC 50)

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

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

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

where:

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

Areas of Special Biological Significance (ASBS)

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

Average Monthly Effluent Limitation (AMEL)

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

Average Weekly Effluent Limitation (AWEL)

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

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.

Best Professional Judgment (BPJ)

BPJ is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data.

Bioaccumulative Pollutants

Bioaccumulative pollutants are 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.

Bioassay

A test used to evaluate the relative potency of a chemical or a mixture of chemicals by comparing its effect on a living organism with the effect of a standard preparation on the same type of organism.

Biochemical Oxygen Demand (BOD)

A measurement of the amount of oxygen utilized by the decomposition of organic material, over a specified time period (usually 5 days) in a wastewater sample; it is used as a measurement of the readily decomposable organic content of a wastewater.

Biosolids

Sewage sludge that is used or disposed through land application, surface disposal, incineration, or disposal in a municipal solid waste landfill.

Bypass

Bypass means that the intentional diversion of waste streams from any portion of a treatment (or pretreatment) facility whose operation is necessary to maintain compliance with the terms and conditions of this order and permit.

Chlordane

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

Chlorinated Phenolic Compounds

Chlorinated phenolic compounds shall mean the sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

Chronic Toxicity

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

- a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

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

- b. No Observed Effect Level (NOEL)

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

Clean Water Act (CWA)

The Clean Water Act is an act passed by the United States congress to control water pollution. It was formerly referred to as the Federal Water Pollution control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), 33 United States Code 1251 et seq., as amended by: Public Law 96-483; Public Law 97-117; Public Laws 95-217, 97-117, 97-440, and 100-04.

Code of Federal Regulation (CFR): A codification of the final rules published daily in the Federal Register. Title 40 of the CFR contains the environmental regulations.

Composite Sample means, 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 means, for other than flow rate measurement,

- a. A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling; or,
- b. A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between sampling remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

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.

Conventional Pollutants

Pollutants typical of municipal sewage, and for which municipal secondary treatment plants are typically designed; defined at 40 CFR part 401.16 as BOD, TSS, fecal coliform, bacteria, oil and grease, and pH.

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 (Dichlorodiphenyltrichloroethane)

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.

Dichlorobenzenes

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

Downstream Ocean Waters

Waters downstream with respect to ocean currents.

Dredged Material

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

Enclosed Bays

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

Endosulfan

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

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

Grab Sample

Grab Sample is defined as any individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the maximum daily effluent limitations and the instantaneous maximum effluent limitations.

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

Hazardous Substance means any substance designated under 40 CFR part 116 pursuant to section 311 of the Clean Water Act and/or a hazardous waste, as defined in 40 CFR part 116 pursuant to section 311 of the Clean Water Act and/or a hazardous waste, as defined in 40 CFR part 261.3

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

Initial Dilution

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

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

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

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Kelp Beds

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

Land Application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Local Limits: Conditional discharge limits imposed by municipalities upon industrial or commercial facilities that discharge to the municipal sewage treatment system.

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.

Median is 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 measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 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.

Nearshore is defined as the zone bounded by the shoreline and a line 1,000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline.

Non-Chlorinated Phenolic Compounds shall mean the sum of 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, 2-methyl-4,6-dinitrophenol, and phenol.

Nonconventional Pollutants: All pollutants that are not included in the list of conventional or toxic pollutants in 40 CFR part 401. These include pollutants such as chemical oxygen demand (COD), total organic carbon (TOC), nitrogen, and phosphorus.

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.

Pass Through is defined as the discharge through the POTW to navigable waters which, alone or in conjunction with discharges from other sources, is a cause of a violation of POTW's NPDES permit.

PCBs (polychlorinated biphenyls)

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

PCB derivatives: At a minimum, PCB congeners whose analytical characteristics resemble those of 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 shall be individually quantified.

Pesticides are, for purposes of this order, those six constituents referred to in 40 CFR, part 125.58 (p) (methoxychlor, demeton, guthion, malathion, mirex, and parathion).

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 CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pretreatment: The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a publicly owned treatment works (40 CFR part 403.3(q)).

Priority Pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

Publicly Owned Treatment Works (POTW): A treatment works, as defined by section 212 of the CWA, that is owned by the State or municipality. 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 (40 CFR part 403.3).

Rare, threatened or Endangered species (RARE) means that one or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

Reported Minimum Level (RML)

The ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. 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.

Sanitary Sewer: a pipe or conduit (sewer) intended to carry wastewater or water-borne wastes from homes, businesses, and industries to the POTW.

Sanitary Sewer Overflows (SSO): Untreated or partially treated sewage overflows from a sanitary sewer collection system.

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.

Secondary Treatment Standards: Technology-based requirements for direct discharging municipal sewage treatment facilities. Standards are based on a combination of physical and biological processes typical for the treatment of pollutants in municipal sewage. Standards are expressed as a minimum level of effluent quality in terms of: BOD₅, total suspended solids (TSS), and pH (except as provided for special considerations and treatment equivalent to secondary treatment).

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 which can reasonably be expected to occur in the absence of a "bypass" or "overflow." It does not mean economic loss caused by delays in production.

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.

Sludge means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.

State Water Quality Protection Areas (SWQPAs)

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution No.s 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

TCDD Equivalents

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

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

Technology-based Effluent Limit (TBEL): A permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration.

Total Maximum Daily Load (TMDL): The amount of pollutant, or property of a pollutant, from point, nonpoint, and natural background sources, that may be discharged to a water quality-limited receiving water. Any pollutant loading above the TMDL results in violation of applicable water quality standards.

Toxic Pollutant: Pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly – from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of USEPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. Toxic pollutants also include those pollutants listed by the Administrator under CWA section 307(a)(1) or any pollutant listed under section 405(d) which relates to sludge management.

Toxicity Reduction Evaluation (TRE)

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

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with the permit because of factors beyond the reasonable control of the permittee. It does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities,

inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.

Waste

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

Wasteload Allocation (WLA): The proportion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution.

Water Quality-Based Effluent Limit (WQBEL): A value determined by selecting the most stringent of the effluent limits calculated using all applicable water quality criteria (e.g., aquatic life, human health, and wildlife) for a specific point source to a specific receiving water for a given pollutant.

Water Quality Criteria: Comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by USEPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal.

Water Quality Standard: A law or regulation that consists of the beneficial use or uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an antidegradation statement.

Water Reclamation

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.

Whole Effluent Toxicity (WET)

The total toxic effect of an effluent measured directly with a toxicity test.

Zone of Initial Dilution (ZID) means, for purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.

B.
ATTACHMENT B – MAP

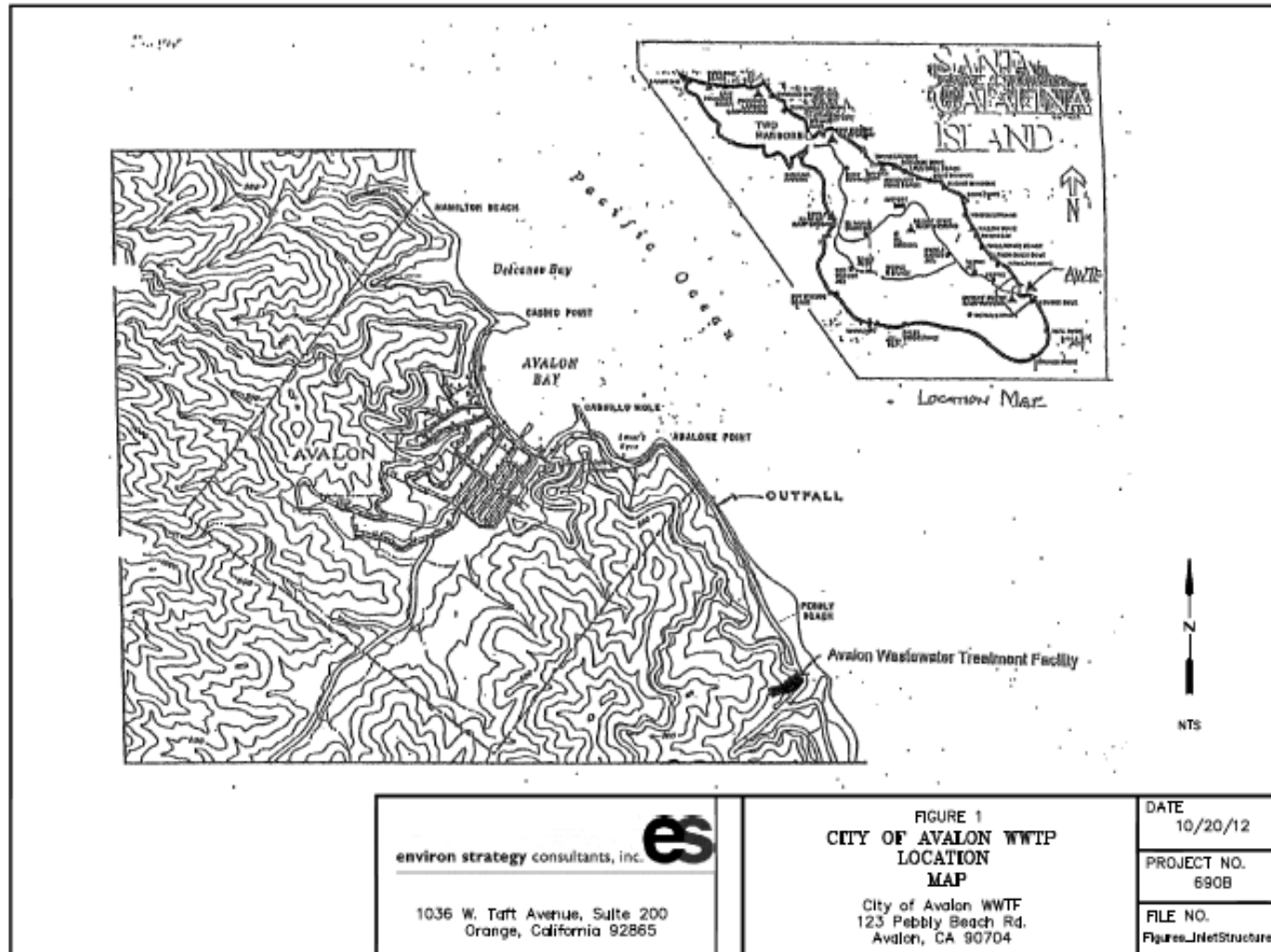
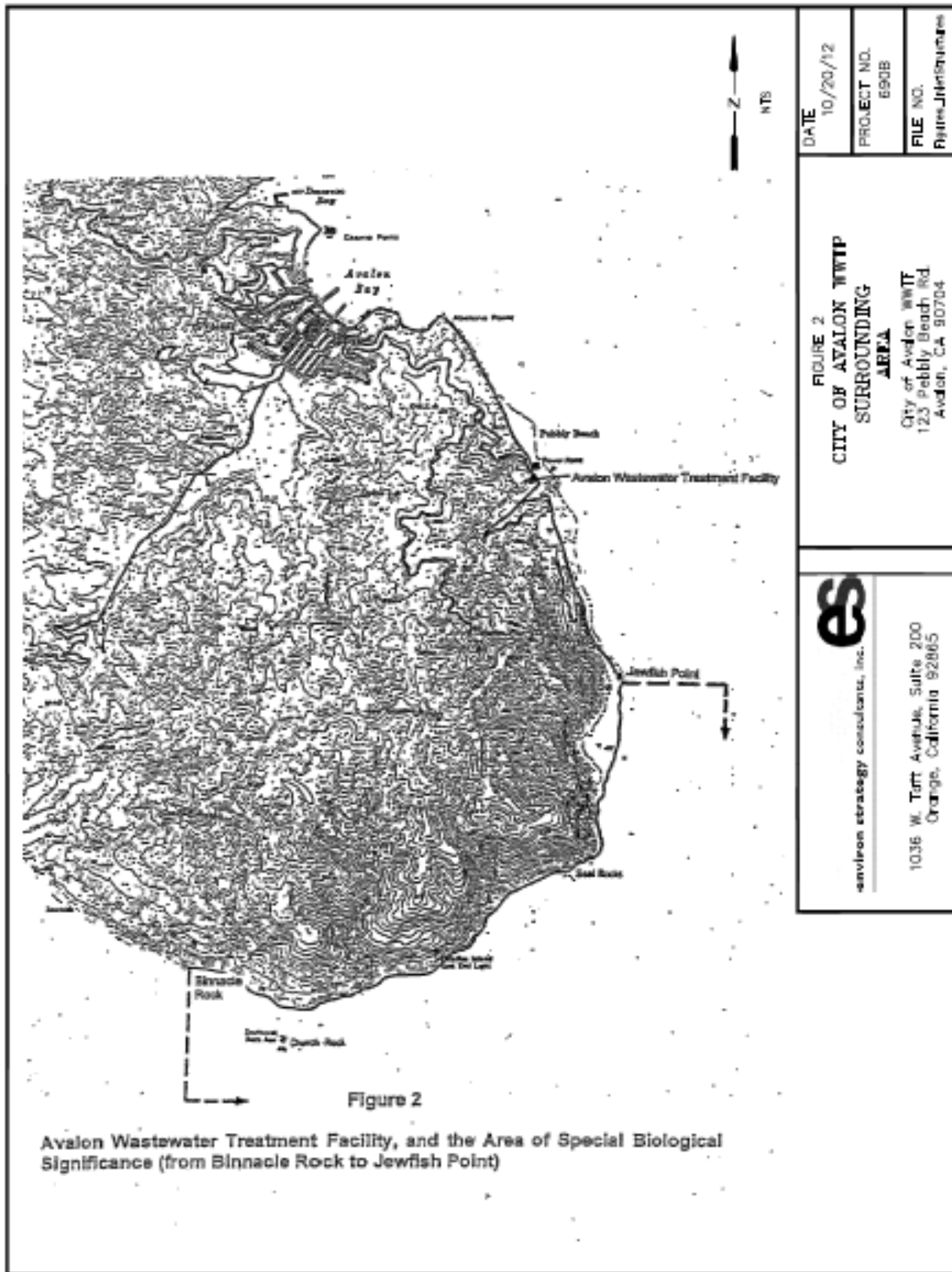


Figure 1 – City of Avalon WWTF Location Map



| | |
|--|-------------------------|
| DATE | 10/20/12 |
| PROJECT NO. | E90B |
| FILE NO. | Figure 2/Infrastructure |
| FIGURE 2 CITY OF AVALON WWTF SURROUNDING AREA City of Avalon WWTF 123 Pebble Beach Rd. Avalon, CA 90704 | |
|  environ strategy consultants, inc. 1036 W. Terr Avenue, Suite 200 Orange, California 92665 | |

Figure 2 – City of Avalon WWTF Surrounding Area

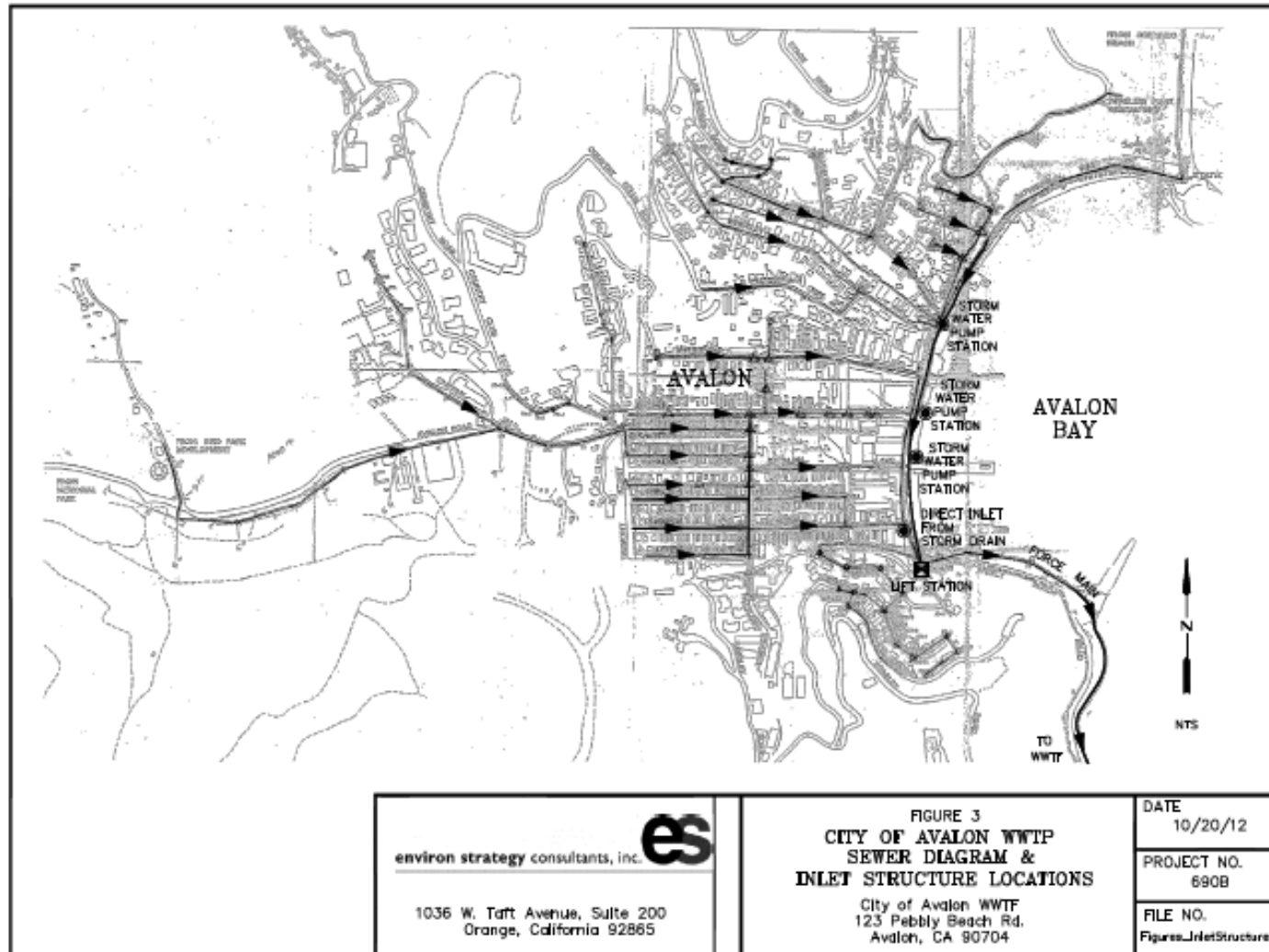


Figure 3 – City of Avalon WWTP Sewer Diagram & Inlet Structure Locations

C.
ATTACHMENT C – FLOW SCHEMATIC

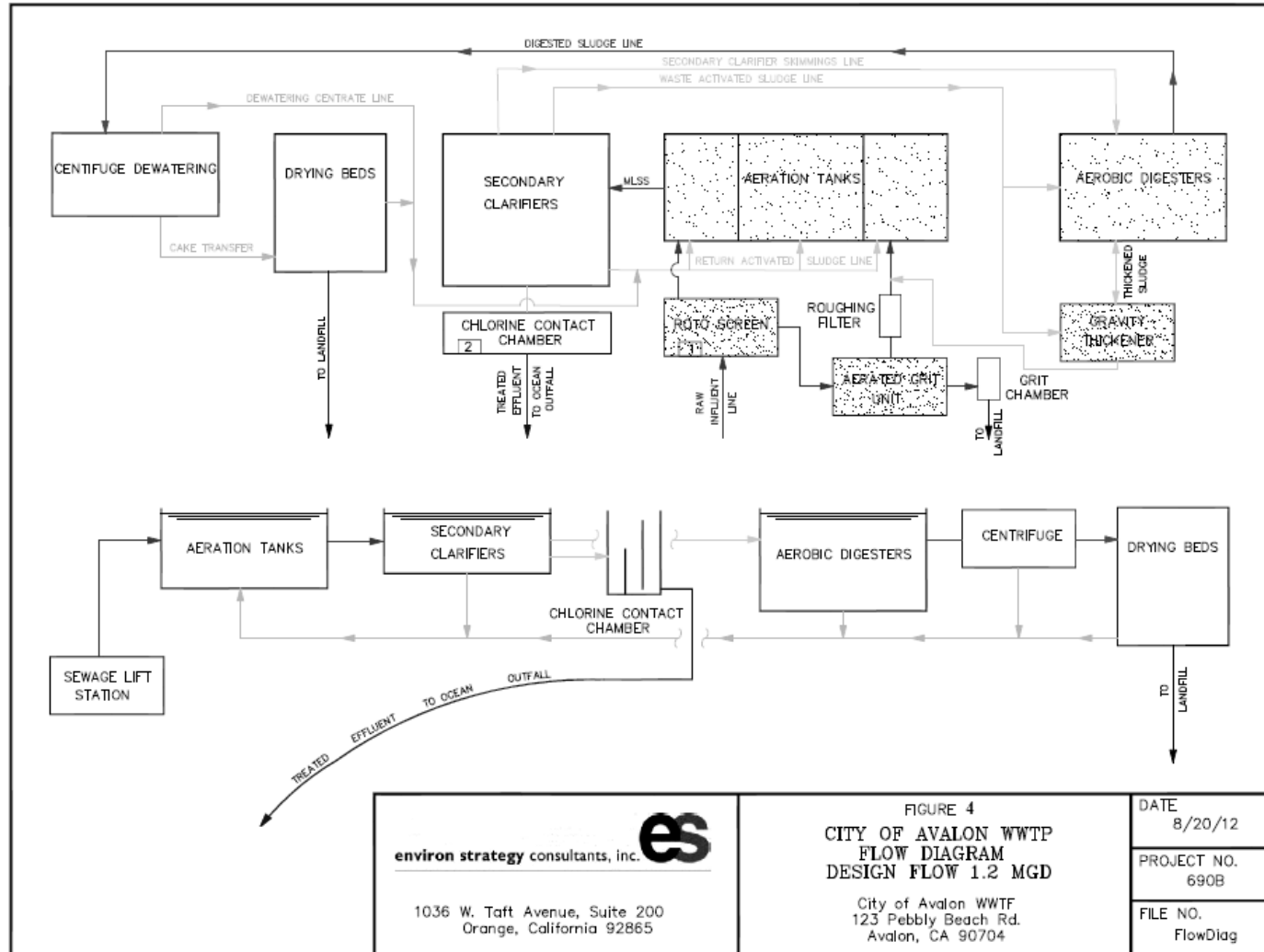


Figure 4 – City of Avalon WWTF Flow Diagram Design Flow 1.2 mgd

D.

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), its regulations, and the California Water Code (CWC) and is grounds for enforcement action, permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof (Title 40, Code of Federal Regulations (40 CFR) part 122.41(a); California Water Code (CWC) sections 13261, 13263, 13264, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR part 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 part 122.41(c).)

C. Duty to Mitigate

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

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR part 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 part 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (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. section 1318(a)(4)(B); 40 CFR part 122.41(i); CWC sections 13267 and 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. section 1318(a)(4)(B)(i); 40 CFR part 122.41(i)(1); CWC sections 13267 and 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. section 1318(a)(4)(B)(ii); 40 CFR part 122.41(i)(2); CWC sections 13267 and 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 section 1318(a)(4)(B)(ii); 40 CFR part 122.41(i)(3); CWC sections 13267 and 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 CWC, any substances or parameters at any location. (33 U.S.C. section 1318(a)(4)(B); 40 CFR part 122.41(i)(4); CWC sections 13267 and 13383).

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR part 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 part 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 part 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 part 122.41(m)(4)(i)):

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR part 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 part 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 part 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 part 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 a notice, if possible at least 10 days before the date of the bypass. (40 CFR part 122.41(m)(3)(i).)
- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR part 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 part 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 part 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 part 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR part 122.41(n)(3)(i));

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 part 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

1. The name and address of any permit applicant or Discharger (40 CFR part 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 CFR part 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 part 122.41(h); CWC section 13267.)

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, and V.B.5 below. (40 CFR part 122.41(k).)
2. *Signatory requirements for a municipality, State, Federal, or other public agency.* All applications submitted to the Regional Water Board 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 part 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 part 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 part 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR part 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 part 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 part 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the MRP (Attachment E) in this Order. (40 CFR part 122.22(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 for reporting results of monitoring of sludge use or disposal practices. (40 CFR part 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, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and

reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 CFR part 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 part 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 part 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR part 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR part 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR part 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 CFR part 122.41(l)(6)(ii)(B).)
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR part 122.41(l)(6)(iii).)

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 part 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 part 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 subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 CFR part 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR part 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR part 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 part 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

- A.** The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- 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 part 122.41(a)(2); CWC section 13385 and 13387).

- C.** Any person may be assessed an administrative penalty by the Administrator of USEPA, 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 part 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 by imprisonment for 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 by imprisonment of not more than four years, or both. (40 CFR part 122.41(j)(5)).
- E.** The CWA 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 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 by both. (40 CFR part 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 part 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 part 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 part 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 part 122.42(b)(3).)

E.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-0066

Section 308(a) of the federal Clean Water Act 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 (CWC) sections 13267 and 13383 also authorizes the Regional Water Quality Control Board (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. Principles, Framework, and Design of Monitoring Program

1. 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 current status of important ecological resources in the waterbody. 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 nearshore 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.
2. The Regional Water Board and the United States Environmental Protection Agency (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.
3. 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.
 - a. 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.
 - 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 permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this permit, these levels of effort are based upon past participation of the City of Avalon in regional monitoring programs.

The Discharger shall 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. Ocean POTW dischargers in the Los Angeles Region normally are required to consult annually to determine the need for special studies, but City of Avalon is not subject to this requirement due to small size of discharge.
4. In an attempt to bridge the foregoing gap in information, this monitoring program for the City of Avalon is comprised 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.
5. Southern California Bight Regional Surveys

Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated through SCCWRP with discharger agencies and numerous other entities. The fourth regional monitoring program (Bight '08) took place during 2008 and 2009. The City of Avalon was required to contribute \$25,000 to the 2008 regional survey. The fifth regional monitoring program is expected to begin during 2013. The City of Avalon shall contribute \$25,000 to the 2013 regional survey (as well as 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, 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 to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer upon written notification to the Discharger.

6. Central Region Kelp Monitoring Program

The Regional Water Board has helped to establish the Central Region Kelp Survey Consortium to conduct regional kelp bed monitoring. This program is designed to require ocean dischargers in the Regional Water Board's jurisdiction to undertake a collaborative program (which may include participation by Orange County ocean dischargers) to monitor kelp beds in the Southern California Bight, patterned after the successful program implemented by the San Diego Regional Water Board since 1985. Data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. 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 during 2003.

At the present time, the Central Region Kelp Monitoring Program does not 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 to the funding of the program (funding level is dependent on the number of participants in the consortium, but in no case shall it exceed \$10,000 per year).

7. Central Bight Water Quality Cooperative Program

Coordinated monitoring of water quality is conducted quarterly by the Orange County Sanitation District, County Sanitation Districts of Los Angeles County, the City of Los Angeles and the City of Oxnard. These integrated water quality surveys cover more than 200 kilometers of coast from the nearshore zone to approximately ten (10) 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 in the area of wastewater outfalls.

At this time, the Central Bight Water Quality Cooperative Program does not include monitoring in the vicinity of 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 the other participants to conduct integrated water quality monitoring.

- B.** All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done 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 in the monthly monitoring report following the analyses.
- C.** Pollutants shall be analyzed using the analytical methods described in 40 CFR parts 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 California Department of Public Health (CDPH) 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 each time a new certification and/or renewal of the certification is obtained from ELAP.
- D.** Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.

- E.** The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to ensure accuracy of measurements, or shall ensure that both equipment activities will be conducted.
- F.** For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G.** Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program.”
- H.** 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 the 2012 Ocean Plan, Appendix II. 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 method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported ML.
- I.** The Discharger shall select the analytical method that provides an ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section K. below. If the effluent limitation is lower than all the MLs in Appendix II of the 2012 Ocean Plan, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.
- J.** 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 lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section K. below, the Discharger’s laboratory may employ a calibration standard lower than the ML in Appendix II of the 2012 Ocean Plan.
- K.** In accordance with section III.C.5.b of the 2012 Ocean Plan, the Regional Water Board Executive Officer, in consultation with the State Water Board’s Quality Assurance Program Manager, may establish an ML that is not contained in Appendix II of the 2012 Ocean Plan to be included in the discharger’s permit in any of the following situations:

 - 1. When a pollutant under consideration is not listed in Appendix II;
 - 2. When the discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;
 - 3. When the discharger agrees to use an ML that is lower than those listed in Appendix II;

4. 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 the matrix; or,
 5. When the discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are 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, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- L.** 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 program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
- M.** The Discharger shall develop and maintain a record of all spills and bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section 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.
- N.** For all bacteriological 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.
1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.
 2. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 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 to be appropriate.

O. Laboratory Certification

Laboratories analyzing monitoring samples shall be certified by the CDPH, in accordance with the provision of CWC section 13176, and must include QA/QC data with their reports.

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 1. Monitoring Station Locations

| Influent and Effluent Monitoring Stations | | |
|--|---------------------------------|---|
| Discharge Point Name | Monitoring Location Name | Monitoring Location Description |
| -- | INF-001 | Sampling stations 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. The latitude and longitude of the influent monitoring station is 33 ° 19.937 N, 118 ° 18.620 W. |
| 001 | EFF-001 | The effluent sampling station shall be located downstream of any in-plant return flows but before entering discharge tunnel where representative samples of the effluent can be obtained. |
| Receiving Water Monitoring Stations | | |
| | RSW-001 | Abalone Point - within 100 feet of the mean lower low water line. |
| | RSW-002 | Outfall - at a point directly over the terminus of the ocean outfall. |
| | 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. |
| | RSW-004 | Pebbly Beach - at a point near the desalination plant infiltration well and within 50 feet of the mean lower low water line. |
| | RSW-005 | Control station – at a point 1,000 feet southeast of the outfall terminus, 400 feet offshore on the 125-foot depth contour. |
| | RSW-006 | Pebbly Beach – at a point approximately half way between RSW-001 and RSW-002 and within 200 feet of the mean lower low water line |
| Bottom Monitoring Stations | | |
| | BOT-001 | Adjacent to outfall terminus. |
| | BOT-002 | 50 feet upcurrent of the discharge along the isobath which intersects the outfall terminus. |
| | BOT-003 | 50 feet downcurrent of the discharge along the isobath which intersects the outfall terminus. |
| | BOT-004 | 100 feet upcurrent of the discharge along the isobath which intersects the outfall terminus. |
| | BOT-005 | 1000 feet downcurrent of the discharge along the isobath which intersects the outfall terminus (Station BOT-005 may be sampled at a point 500 feet downcurrent of the discharge, if necessary, to remain on soft bottom habitat). |
| | BOT-006 | 1000 feet upcurrent of the discharge along the isobath which intersects the outfall terminus. |

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the Pretreatment Program.

A. Monitoring Location INF-001

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

Table 2. Influent Monitoring

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|----------|--|----------------------------|---------------------------------|
| Flow | mgd | Recorder/totalizer | Continuous ¹ | ² |
| pH | pH units | Grab | Weekly | ² |
| TSS | mg/L | 24-hr composite | Weekly | ² |
| BOD ₅ 20 °C | mg/L | 24-hr composite | Weekly | ² |
| Oil and grease | mg/L | Grab ³ | Monthly | ² |
| Total organic carbon | mg/L | 24-hr composite | Monthly | ² |
| Remaining pollutants in Table 1 of the 2012 Ocean Plan (excluding residual chlorine, acute and chronic toxicity, and ammonia) | µg/L | 24-hr composite, or grab, as applicable according to 40 CFR part 136 | Annually | ² |
| | | | | |

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards.
- Assess plant performance, identify operational problems and improve plant performance.
- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

¹ When continuous monitoring of flow is required, total daily flow and peak daily flow (24-hr basis) should be reported.

² Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Board. 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.

³ Oil and grease monitoring in the influent and effluent shall consist of a single grab sample at peak flow over a 24-hour period.

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 ML:

Table 3. Effluent Monitoring

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|------------------------------|-------------------------------|--|----------------------------|---------------------------------|
| Total waste flow | mgd | Continuous ¹ | -- | -- |
| BOD ₅ 20 °C | mg/L | 24-hr composite | 5 days/week | ² |
| Turbidity | NTU | 24-hr composite | Weekly | ² |
| Temperature | °C | Grab | Monthly | ² |
| pH | pH unit | Grab | Monthly | ² |
| Total suspended solids (TSS) | mg/L | 24-hr composite | 5 days/week | ² |
| Total dissolved solids | mg/L | 24-hr composite | Monthly | ² |
| Settleable solids | ml/L | Grab | Monthly | ² |
| Oil and grease | mg/L | Grab | Monthly | ² |
| Total coliform | MPN/ 100mL or CFU/100ml | Grab | Weekly | ² |
| Fecal coliform | MPN/ 100mL or CFU/100ml | Grab | Weekly | ² |
| Enterococcus | MPN/ 100mL or CFU/100ml | Grab | Monthly | ² |
| Total organic carbon | mg/L | 24-hr composite | monthly | ² |
| Total residual chlorine | mg/L | Grab | 5 days/week | ² |
| TCDD equivalents | µg/L | 24-hr composite, or grab, as applicable according to 40 CFR part 136 | Monthly | ² |
| Bis(2-ethylhexyl)phthalate | µg/L | 24-hr composite, or grab, as applicable according to 40 CFR part 136 | Monthly | ² |
| Ammonia nitrogen | mg/L | 24-hr composite | Quarterly | ² |
| Nitrate nitrogen | mg/L | 24-hr composite | Quarterly | ² |
| Chronic toxicity | TUc | 24-hr composite | Quarterly ⁴ | ⁵ |
| Cadmium | µg/L | 24-hr composite | Quarterly | ² |
| Antimony | µg/L | 24-hr composite | Quarterly | ² |

⁴ The monitoring frequency is monthly for three consecutive months during the screening period. Please refer to section V. Whole Effluent Toxicity Testing Requirements for details.

⁵ Analytical method and requirements for chronic toxicity testing are described in Section V. Whole Effluent Toxicity Testing Requirements.

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|--|-------|--|----------------------------|---------------------------------|
| Arsenic | µg/L | 24-hr composite | Quarterly | ² |
| Chromium (III) | µg/L | 24-hr composite | Quarterly | ² |
| Lead | µg/L | 24-hr composite | Quarterly | ² |
| Nickel | µg/L | 24-hr composite | Quarterly | ² |
| Selenium | µg/L | 24-hr composite | Quarterly | ² |
| Silver | µg/L | 24-hr composite | Quarterly | ² |
| Zinc | µg/L | 24-hr composite | Quarterly | ² |
| Copper | µg/L | 24-hr composite | Quarterly | ² |
| Methyl-tert-butyl-ether | µg/L | 24-hr composite, or grab, as applicable according to 40 CFR part 136 | Semiannually | ² |
| Remaining pollutants in Table 1 of the 2012 Ocean Plan | µg/L | 24-hr composite, or grab, as applicable according to 40 CFR part 136 | Semiannually | ² |
| Radioactivity ⁶ (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium) | pCi/L | 24-hr composite | Semiannually | ² |
| Pesticides ⁷ | µg/L | 24-hr composite | Semiannually | ² |

V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

A. Chronic Toxicity Testing

1. **Methods and test species.** The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite, 100 percent effluent samples in accordance with 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-95/136, 1995). Pursuant to the 2012 California Ocean Plan, upon the approval of the Executive Officer of the Regional Water Board, the Discharger may use a second tier organism (e.g., silverside) if first tier organisms (e.g., topsmelt) are not available. However, the Discharger is required to immediately resume the chronic toxicity test using the original testing organism as soon as this organism becomes available.

⁶ Analyze these radiochemicals by the following USEPA methods: method 900.0 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 results for the same sample exceed 15 pCi/L or Beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and Uranium.

⁷ Pesticides are, for purposes of this order, those six constituents referred to in 40 CFR part 125.58(p) (Methoxychlor, Demeton, Guthion, Malathion, Mirex, and Parathion).

2. Frequency

- a. Screening - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months in 2014. Re-screening is required every 24 months. The Discharger shall re-screen with a marine vertebrate species, a marine invertebrate species, and a marine alga species and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrate that the same species is the most sensitive, then the re-screening 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 shall proceed with suites of screening tests for a minimum of three, but not to exceed five, suites.
- b. Regular toxicity tests - After the screening period, monitoring shall be conducted quarterly using the most sensitive species.

3. **Toxicity Units.** The chronic toxicity of the effluent shall be expressed and reported in Chronic Toxic Units, TU_c, where,

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manual (EPA-821-R-02-012 and/or EPA/600/R-95/136), then the Discharger must re-sample and re-test within 14 days.
3. Control and dilution water should be laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.
4. A series of at least five dilutions and a control shall be tested. The dilution series shall include the instream waste concentration (IWC), and two dilutions above and two below the IWC. The chronic IWC for Discharge Point 001 is 1.64% effluent. (1.64% is the result of 1 divided by 61, which is sum of dilution credit 60 plus 1, then multiplied by 100).
5. Because this permit requires sublethal hypothesis testing endpoints from the 1995 West Coast marine and estuarine WET test methods manual and the 2002 East Coast marine and estuarine WET test methods manual, within test variability must be reviewed and variability criteria [e.g., Minimum Significance Difference (MSD) bound, Percent, Minimum Significance Difference (PMSD) bounds] must be applied, as specified in the test methods manuals. The calculated MSD (or PMSDs) for both reference toxicant test and effluent toxicity test results must meet the MDS bound (or PMSD bounds) variability criteria specified in the test methods manuals.

C. Accelerated Monitoring

If the effluent toxicity test result exceeds the limitation, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within five working days of receipt of the test results exceeding the toxicity limitation.

1. If all the results of the six additional tests are in compliance with the toxicity limitation, the Discharger may resume regular monthly testing.
2. If the result of any of the six additional tests exceeds the limitation, then the Discharger shall continue to monitor once every two weeks until six consecutive biweekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.
3. If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) and implement the initial investigation Toxicity Reduction Evaluation (TRE) work plan.
4. If implementation of the initial investigation TRE work plan (see item E below) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

D. Preparation of an Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE (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 most current version. At a minimum, the TRE work plan must contain the provisions in Attachment G. This work plan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include the following, at a minimum:

1. 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.
2. 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,
3. 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). See MRP section V.E.3 below for guidance manuals.

E. Steps in TRE and TIE

1. If results of the implementation of the facility's initial investigation TRE work plan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE work plan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE. The detailed work plan shall include, but not be limited to the following:
 - a. Further actions to investigate and identify the cause of toxicity;

chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not 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 TIE 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.

G. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month, as required by this permit. Test results shall be reported in Chronic Toxicity Units (TUC), as required, with the self-monitoring report (SMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to section V.C.4, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

1. The full report shall be received by the Regional Water Board by the 15th day of the second month following sampling.
2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the toxicity limit.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include the following, at a minimum, as applicable, for each test, as appropriate:
 - a. sample date(s)
 - b. test initiation date
 - c. test species
 - d. end point values for each dilution (e.g. number of young, growth rate, percent survival)

e. LC₅₀ value(s) in percent effluent

f. TU_a value(s) $\left(TU_a = \frac{100}{LC50} \right)$

g. NOEC value(s) in percent effluent

h. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$

i. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)

j. IC/EC₂₅ values(s) in percent effluent

Inhibition Concentration (IC_p) is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological endpoint (e.g., reproduction, growth) calculated from a continuous model (e.g., EPA Interpolation Model).

Effective Concentration (EC_p) is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a quantal biological measurement (e.g., development, survival) calculated from a continuous model (e.g., Probit).

k. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)

l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.

5. The Discharger shall notify this Regional Water Board immediately of any toxicity exceedance and in writing 14 days after the receipt of the results of an effluent limit. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. RECLAMATION SPECIFICATIONS

In accordance with statewide policies concerning water reclamation, this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The 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. The Discharger shall submit a feasibility study to the Regional Water Board 180 days after the effective date of this Order. The Discharger shall submit an update to this feasibility study and as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

VII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Nearshore/Offshore Water Quality Monitoring

This survey addresses the compliance questions: “Are Ocean Plan and Basin Plan objectives for parameters listed in Tables 4a and 4b being met?” Data collected provide the information necessary to demonstrate compliance with the standards.

1. The Discharger shall monitor receiving water quality at RSW-001, RSW-002, RSW-003, RSW-004, RSW-005, and RSW-006, together with an additional monitoring for residual chlorine at RSW-002 as follows:

Table 4a. Receiving Water Monitoring Requirements – 1

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---------------------|----------|--------------------|----------------------------|---------------------------------|
| Dissolved oxygen | mg/L | continuous profile | quarterly | 2 |
| Water temperature | °C | continuous profile | quarterly | 2 |
| Salinity | ppt | continuous profile | quarterly | 2 |
| pH | pH units | continuous profile | quarterly | 2 |
| Residual chlorine | mg/L | grab | monthly | 2 |
| Visual observations | --- | --- | monthly | 8 |

Sampling techniques shall follow protocols described in the most current edition of the *Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP*. Data shall be analyzed to approximate the typical wastewater plume movement and data from 1998 and forward shall be analyzed to determine and map out the wastewater plume movement under different seasonal and weather conditions.

The Regional Water Board has helped to coordinate the Central Bight Water Quality Cooperative Program to conduct regional monitoring of water quality conditions throughout much of the Southern California Bight. Under this program, coordinated monitoring of oceanic water quality conditions is conducted quarterly by Orange County Sanitation District, County Sanitation Districts of Los Angeles County, City of Los Angeles and City of Oxnard. At the present time, this program does not include water quality transects in the vicinity of Catalina Island. If such a component is added to the Water Quality Cooperative Program, the City of Avalon shall participate in this program and conduct quarterly water quality monitoring at agreed upon transects in lieu of the current monthly monitoring requirements. This redirection of effort is subject to Executive Officer approval.

Monthly monitoring result for residual chlorine at RSW-002 and monthly visual observations at six stations shall be reported in the monthly self monitoring report.

⁸ Observations of wind (direction and speed), weather (e.g., cloudy, sunny, or rainy), current (e.g., direction), and tidal conditions (e.g., high or low tide) shall be made and recorded (every four hours during offshore sampling) at the time samples of the waters of the Pacific Ocean (shore, nearshore, and all offshore stations) are collected. Observations of water color, discoloration, oil and grease, turbidity, odor, materials of sewage origin in the water or on the beach, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall also be made and recorded at stations or while in transit. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported.

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

Table 4b. Receiving Water Monitoring Requirements – 2

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|----------------|-------------------|--|----------------------------|---------------------------------|
| Total coliform | MPN or CFU/100 mL | grabs at 0.5 meters below the surface. | monthly | ² |
| Fecal coliform | MPN or CFU/100 mL | grabs at 0.5 meters below the surface. | monthly | ² |
| Enterococcus | MPN or CFU/100 mL | grabs at 0.5 meters below the surface. | monthly | ² |

The actual depth of all sampling stations shall be reported in the monthly monitoring reports.

Should the total coliform, fecal coliform or enterococcus values obtained by monthly sampling exceed the receiving water bacterial standards, the Discharger shall collect additional four weekly samples to demonstrate compliance with the limits in the Order.

B. Benthic Monitoring

Benthic monitoring includes Infauna and sediment. The Discharger shall annually monitor Infauna and sediment at 6 bottom monitoring stations from BOT-001 to BOT-006 (See Table E-1).

1. **Local Benthic Survey** – This survey addresses the question: “Are benthic conditions under the influence of the discharge changing over time?” The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence of the discharge.

- a. Infaunal Community and Habitat Variables Survey

The Discharger shall monitor 6 bottom stations from BOT-001 to BOT-006 along the isobath which intersects the outfall terminus as follows:

Table 5. Infauna Monitoring Requirements

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---------------------------|----------|------------------------|----------------------------|---------------------------------|
| Benthic infauna community | -- | Diver operated sampler | annually | ² |
| Total organic carbon | mg/L | Diver operated sampler | annually | ² |
| Organic nitrogen | mg/L | Diver operated sampler | annually | ² |
| Grain size | Phi size | Diver operated sampler | annually | ² |

- (1) Infaunal Community Survey – Benthic infauna monitoring⁹ shall be conducted annually during the month of July at bottom stations BOT-001 to BOT-006. One

⁹ These bottom samples shall be taken by means of a diver operated sampler. The entire contents of each sample shall be passed through a 1.0 mm (0.039 in.) mesh screen to retrieve the benthic organisms. These organisms shall be fixed in 10% buffered formalin and transferred to 70% ethanol within two to seven days for

sample shall be taken at each station for benthic infaunal community analysis. Bottom samples for benthic infaunal analyses shall be taken at each benthic station prior to trawl sampling. The following determinations shall be made at each station, where appropriate:

- i. Identification of all organisms to lowest possible taxon (usually species); and,
- ii. Total biomass of:
 - Mollusks;
 - Echinoderms;
 - Annelids/polychaetes;
 - Crustaceans; and,
 - All other macroinvertebrates.
- iii. Community structure analysis for benthic infaunal¹⁰ for each station and each replicate.

Mean, median, range, standard deviation, and 95% confidence limits, if appropriate, for values determined above in iii. The Discharger may be required to conduct additional “statistical analyses” to determine temporal and spatial trends in the marine environment.

- (2) Sediment Chemistry Survey – Sediment chemistry monitoring shall be conducted once every two years during the month of 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 taken from the grab for the sediment chemistry analyses. Bottom samples for sediment chemistry analyses shall be taken at each benthic station prior to trawl sampling. All benthic sediment samples shall be taken at each bottom station (BOT-001 to BOT-006) along the isobath which intersects the outfall terminus by means of a diver operated sampler. Sub-samples (upper two centimeters) of sediment from each sample shall be collected and analyzed separately for the following parameters at each station:

- i. Total organic carbon (TOC) (mg/kg dry wt);
- ii. Dissolved sulfides (water soluble) (mg/kg dry wt);
- iii. Total Kjeldahl nitrogen (mg/kg dry wt);

storage. Organisms can be strained with Rose Bengal to facilitate sorting. All specimens retrieved shall be archived.

¹⁰ Community structure analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance, species abundance per grab, species richness, species diversity (e.g., Shannon-Wiener), species evenness and dominance per station and replicate, similarity analyses (e.g., Bray-Curtis, Jaccard or Sorensen), cluster analyses (using unweighted pair-group method) or other appropriate multivariate statistical techniques approved by the Executive Officer of this Regional Water Board and USEPA Region IX, and the Infaunal Index.

- iv. Grain size (sufficiently detailed to calculate percent weight in relation to phi size); and,
- v. Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in $\mu\text{g}/\text{kg}$ dry weight.

2. Regional Benthic Survey

- a. This regional survey addresses the questions: 1) What is the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight? and 2) What is the relationship between biological response and contaminant exposure? The data collected will be used to assess the condition of the sea-floor environment and the health of the biological resources in the Bight.
- b. Sampling Design - A regional survey of benthic conditions within the Southern California Bight took place in 2008 (Bight'08). The final survey design was determined cooperatively by the participants represented on the Regional Steering Committee. The Discharger provided support to the Bight'08 benthic survey by participating in or performing the following activities:
 - (1) Participation on the Steering Committee;
 - (2) Participation on the relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Benthos, and Chemistry);
 - (3) Field sampling at sea;
 - (4) Infaunal sample analysis;
 - (5) Sediment chemistry analysis; and,
 - (6) Data management

Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated through SCCWRP with discharger agencies and numerous other entities. The fourth regional monitoring program (Bight '08) took place during 2008 and 2009. The City of Avalon was required to contribute \$25,000 to the 2008 regional survey. The fifth regional monitoring program is expected to begin during 2013. The City of Avalon shall contribute \$25,000 to the 2013 regional survey (as well as 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, 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 to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer upon written notification to the Discharger.

C. Kelp Bed Monitoring

1. This regional survey is to address the question: "Is the extent of kelp beds in the Southern California Bight changing over time and are some beds changing at rates different than others?" The data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to the discharge to be compared to regional trends.
2. At the present time, the Central Region Kelp Monitoring Program does not include monitoring of kelp beds around 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 to the funding of the program (funding level is dependent on the number of participants in the consortium, but in no case shall it exceed \$10,000 per year).

D. Sampling, Analysis, and Reporting Notes for Receiving Water Monitoring

1. Receiving water monitoring shall be performed during daylight hours.
2. In addition to reporting the actual concentration of bacterial organisms obtained in each sample collected from shoreline, nearshore, and offshore stations, the running median of the latest 6-month period shall also be determined and reported each month. Bacterial data obtained at shoreline stations during or within 48 hours following a major storm event shall not be used in determining medians.
3. Reports regarding receiving water monitoring shall be transmitted with the corresponding effluent monitoring reports. Ocean water quality monitoring (shoreline, nearshore, and offshore components) reports shall be submitted with the effluent reports by the fifteenth day of the second month following the sampling period. The offshore sediment and biological monitoring data shall be submitted with the annual report.

VIII. OTHER MONITORING REQUIREMENTS

A. Special Study

1. CEC Monitoring in the Effluent

In recent years, the Los Angeles Regional Water Board has incorporated monitoring of a select group of man-made chemicals, particularly pesticides, pharmaceuticals and personal care products, known collectively as CECs, into permits issued to publicly-owned treatment works (POTWs) to better understand the propensity, persistence and effects of CECs in our environment. Recently adopted permits in this region contain requirements for CEC effluent monitoring and submittal of a work plan identifying the CECs to be monitored in the effluent, sample type, sampling frequency and sampling methodology. Based on feedback we have received from permittees and our review of the results of a recent CEC-related study by the Southern California Coastal Water Research Project (SCCWRP) and the State Water Board,

we have modified our CEC monitoring program to respond to feedback while proceeding to fill identified data gaps without overly burdening any one permittee.

The Discharger shall conduct a special study to investigate the CECs in the effluent discharge as listed in the Table below. These constituents shall be monitored annually for at least 1 year. The Regional Water Board has determined that 1 year is an appropriate time period to determine those CECs that are present in POTW effluent. Monitoring results shall be reported as part of the annual report. Within six months of the effective date of this Order, the Discharger shall submit to the Executive Officer a CECs special study work plan for approval. Upon approval, the Discharger shall implement the work plan.

Table 6. CEC Monitoring Requirements

| Parameter | Unit | Sample Type | Minimum Sampling Frequency ¹¹ | Reporting Level (ng/L) |
|---|------|----------------|--|---------------------------------------|
| 17 α -Ethinyl Estradiol | ng/L | To be proposed | Annually | 0.5 |
| 17 β -Estradiol | ng/L | To be proposed | Annually | 0.5 |
| Estrone | ng/L | To be proposed | Annually | 0.5 |
| Bisphenol A | ng/L | To be proposed | Annually | 10 |
| Nonylphenol & Nonylphenol polyethoxylates | ng/L | To be proposed | Annually | 100 |
| Octylphenol & octylphenol polyethoxylates | ng/L | To be proposed | Annually | 100 |
| Polybrominated diphenyl ether (PBDE 28, 47, 99, 100, 153, 154, 183, 209)s | ng/L | To be proposed | Annually | 100 for PBDE 209 and 5 for all others |
| Amoxicillin | ng/L | To be proposed | Annually | 10 |
| Azithromycin | ng/L | To be proposed | Annually | 10 |
| Carbamazepine | ng/L | To be proposed | Annually | 10 |
| Caffeine | ng/L | To be proposed | Annually | 10 |
| N,N-Diethyl-m-toluamide (DEET) | ng/L | To be proposed | Annually | 10 |
| Dilantin | ng/L | To be proposed | Annually | 10 |
| Gemfibrozil | ng/L | To be proposed | Annually | 10 |
| Ibuprofen | ng/L | To be proposed | Annually | 10 |
| Iodinated contrast media (iopromide) | ng/L | To be proposed | Annually | 10 |
| Sulfamethoxazole | ng/L | To be proposed | Annually | 10 |
| Trimethoprim | ng/L | To be proposed | Annually | 10 |
| TCEP, TCPP and TDCPP | ng/L | To be proposed | Annually | 10 |
| Triclosan | ng/L | To be proposed | Annually | 10 |
| Bifenthrin | ng/L | To be proposed | Annually | 5 |
| Permethrin | ng/L | To be proposed | Annually | 10 |
| Chlorpyrifos | ng/L | To be proposed | Annually | 10 |
| Galaxolide | ng/L | To be proposed | Annually | 10 |
| Diclofenac | ng/L | To be proposed | Annually | 10 |
| Perfluorooctane Sulfonate (PFOS) | ng/L | To be proposed | Annually | 40 |
| Fipronil | ng/L | To be proposed | Annually | 2 |
| Meprobamate | ng/L | To be proposed | Annually | 10 |

¹¹ CEC sampling shall be conducted annually for a minimum of one year.

B. Outfall and Diffuser Inspection

An annual survey shall be performed in July or August. This shall consist of:

1. An examination of the outfall and ballast system for plugs, leaks, rotation, and flow distribution. A detailed structural analysis of the pipes every five years submitted with the Report of Waste Discharge (ROWD) shall be conducted using underwater television/videotape and submarine visual inspection, where appropriate, to provide a comprehensive report on the discharge pipe systems from shallow water to their respective termini. The annual visual inspection shall be conducted on the external condition of the outfall pipes and the adjacent ballast systems. A written report documenting conditions shall be prepared and submitted with the Annual Summary Report to this Regional Water Board.
2. A visual inspection at and in the vicinity of the outfall to determine thickness of any "cloud" of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. Inspections shall include general observations and photographic records of the outfall pipe and the surrounding ocean bottom. A report (including photographs) discussing the above information shall be submitted with the Annual Summary Report to this Regional Water Board.

C. Sludge Monitoring and Reporting

1. The Discharger must comply with all requirements of 40 CFR parts 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements.
2. The Discharger must comply with the monitoring and reporting requirements outlined in Attachment I in this Order, [Biosolids/Sludge Management].
3. A monthly report shall be provided, noting the moisture content, weight, and volume of screenings, sludges, grit, and other solids removed from the wastewater. The point(s) from which these wastes were obtained and the disposal sites to which waste solids are transported shall be specified in the monthly reports.

IX. 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 activity that could potentially affect compliance with applicable requirements.

B. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS website will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through VIII. The Discharger shall submit monthly, quarterly, semiannual, annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 6. Monitoring Periods and Reporting Schedule

| Sampling Frequency | Monitoring Period Begins On... | Monitoring Period | SMR Due Date |
|--------------------|--|---|---|
| Continuous | Permit effective date | All | Submit with monthly SMR |
| Hourly | Permit effective date | Hourly | Submit with monthly SMR |
| Daily | Permit 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 permit effective date or on permit effective date if on a Sunday | Sunday through Saturday | Submit with monthly SMR |
| Monthly | First day of calendar month following permit effective date or on permit effective date if that date is first day of the month | 1 st day of calendar month through last day of calendar month | By the 15 th day of the second month after the month of sampling |
| 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. 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 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 WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
- c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D). Paper SMRs should be converted to a Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed below: (Reference the reports to **Compliance File No. CI-0066** to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
 Los Angeles Region
 320 West 4th Street, Suite 200
 Los Angeles, CA 90013
 Attention: Information Technology Unit

Dischargers who have been certified to only submit electronic SMRs to CIWQS should continue doing so, as previously required.

C. Discharge Monitoring Reports (DMRs)

- 1. As described in section IX.B.1 above, at any time during the term of this permit, the state or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
- 2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

| Standard Mail | FedEx/UPS/ Other Private Carriers |
|--|--|
| State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000 | State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814 |

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

D. Other Reports

1. Annual Summary Report

By April 15 of each year, the Discharger shall submit an annual summary report containing a discussion of the previous year's influent/effluent analytical results and receiving water bacterial monitoring data. The annual summary report shall also contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system, and sewer and plant maintenance activities. The Discharger shall submit an electronic annual report to the Regional Water Board in accordance with the requirements described in subsection B.4 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not 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, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
- b. The Basin Plan or Ocean Plan (2012) 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.

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.

2. 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 so that it is received by the Regional Water Board by August 15 of the following year.

A detailed receiving water monitoring biennial 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 15 of every other year. The report may be limited to discussion of those components of the Receiving Water Monitoring Program that are local in nature. Results of regional surveys need not be included. Data shall be tabulated, summarized, and 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 relation of physical and chemical parameters to biological parameters shall be evaluated. See, also, section V.G. of this MRP. All receiving water monitoring data shall be submitted in

accordance with the data submittal formats developed for the Southern California Bight Regional Monitoring Surveys.

The first biennial assessment report shall be due August 15, 2015, and cover the sampling periods of January-December 2013 and January-December 2014. Subsequent biennial assessment reports shall be due August 1, 2017, and August 1, 2019, to cover sampling periods of January 2015-December 2016 and January 2017-December 2018, respectively.

3. Outfall Inspection Report

A summary report of the Outfall Inspection findings shall be provided annually and shall be submitted by July 1 of the year following an outfall inspection survey. This written report, augmented with videographic and/or photographic images, shall provide a description of the observed external condition of the discharge pipes from shallow water to their respective termini.

F.
ATTACHMENT F – FACT SHEET

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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 1. Facility Information

| | |
|---|---|
| WDID | 4B190100001 |
| Discharger | City of Avalon |
| Name of Facility | Avalon Wastewater Treatment Facility and associated collection system |
| Facility Address | 123 Pebbly Beach Road |
| | Avalon, CA 90704 |
| | Los Angeles County |
| Facility Contact, Title and Phone | Ben Harvey, City Manager, 310-510-0220 (City of Avalon) |
| | David Clary, Project Manager, 310-510-0731 (Environ Strategy Consultants, Inc.) |
| Authorized Person to Sign and Submit Reports | SAME |
| Mailing Address | PO Box 1810, Avalon, CA 90704 |
| Billing Address | SAME |
| Type of Facility | POTW |
| Major or Minor Facility | Minor |
| Threat to Water Quality | 1 |
| Complexity | A |
| Pretreatment Program | No |
| Reclamation Requirements | None |
| Facility Permitted Flow | 1.2 million gallons per day (mgd) |
| Facility Design Flow | 1.2 mgd |
| Watershed | Santa Catalina Subwatershed |
| Receiving Water | Pacific Ocean |
| Receiving Water Type | Ocean waters |

- A. The City of Avalon (City or Discharger) owns the Avalon Wastewater Treatment Facility (Facility or Avalon WWTF), a Publicly Owned Treatment Works (POTW), located at 123 Pebbly Beach Road, Avalon, California, on Santa Catalina Island. Environ Strategy Consultants, Inc (Environ) 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. R4-2008-0028 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054372 adopted on May 1, 2008, and expired on April 10, 2013. The terms and conditions of the current order have been automatically continued and remain in effect until the new Waste Discharge Requirements (WDRs) and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

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

- C.** The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its WDRs and NPDES permit on September 27, 2012. Supplemental information was requested on October 11, 2012, and received on November 15, 2012. The application was deemed complete on December 10, 2012. A site visit was conducted on August 20, 2012, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge. Supplemental laboratory information was provided by Environ Strategy on May 1, 2013 and July 5, 2013.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or 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 mixture of fresh and salt water, 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.

In addition, to protect water quality in Avalon Bay, the Avalon WWTF 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 actuates during dry weather and the first half hour of rainfall events; it is not a Combined Sewer System. After the first half hour of rain, rainfall remains in the storm water system, as per design, and outlets to the ocean.

There are approximately 3,500 people in the service area. The Facility has an average dry weather design treatment capacity of 1.2 mgd. The average flow rate is 0.44 mgd, and the maximum flow rate is 0.73 mgd. The treated wastewater is discharged into the Pacific Ocean, a water of the United States, through an ocean outfall off Pebbly Beach.

2. Wastewater treatment at the Avalon WWTF consists of a rotating screen for removal of large particles, 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 only used during summer, when part of the influent is passed through it to increase the dissolved oxygen content of the wastewater. 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 Pebbly Beach Landfill, regulated separately by Order No. R4-2002-0058. Waste sludge from the activated sludge reactors is aerobically digested, dewatered in a centrifuge, and dried in sludge drying beds before being hauled to the Pebbly Beach Landfill.

3. The following projects were completed by the end of 2011. 1) An additional pump was added to the Catherine Lift Station, and existing pumps and valves at the station were either rebuilt or replaced. 2) All pumps and valves were either rebuilt or replaced at the Pebbly Beach Lift Station. 3) The entire sewer collection system was inspected by closed circuit television (CCTV) and cleaned using a newly purchased Hydro Jetter System. 4) The sludge thickener was reconstructed and new sludge lines, new pumps, and a new influent channel air diffuser were installed at the Avalon WWTP.

B. Discharge Points and Receiving Waters

1. The secondary treated wastewater is discharged through the ocean outfall off Pebbly Beach, approximately half way between the Avalon WWTF and Avalon Bay. The description of the outfall is as follows:

Table 2. Outfall Description

| | |
|---|-------------------|
| Discharge Point Number | 001 |
| Diameter of Pipe at Discharge Terminus (feet) | 1 |
| Outfall Distance Offshore (feet) | 400 |
| Discharge Depth Below Surface Water (feet) | 130 |
| Latitude | 33° 20' 19" North |
| Longitude | 118° 18' 40" West |

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 outfall is about 1.5 miles north, outside the ASBS.
3. The receiving water (Pacific Ocean) is part of the Santa Catalina Subwatershed. In general, the water quality of ocean waters in the vicinity of the island is good. However, Avalon Beach is listed as impaired for indicator bacteria under the 2006 Clean Water Act (CWA) section 303(d) list. See section III.D below for more details.

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

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

Table 3. Historic Effluent Limitations and Monitoring Data

| Parameter | Units | Effluent Limitation Order No. R4-2008-0028 | | | Monitoring Data (January 2008 – May 2013) | | |
|--------------------------------------|-----------|---|-------------------|------------------|--|---|-------------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Maximum Effluent Concentra tion | Lowest Effluent Concentra tion | Highest Daily Discharge |
| Conventional/Non-Conventional | | | | | | | |
| Biochemical Oxygen Demand (BOD) | mg/L | 20 | 35 | -- | 16 | 5 | -- |
| Total Suspended Solids (TSS) | mg/L | 30 | 45 | -- | 27 | 11 | -- |
| Oil & Grease | mg/L | 25 | 40 | -- | 10 | ND<1.7 | -- |
| Settleable Solids | mL/L | 1.0 | 1.5 | 3.0 | 0.8 | 0 | -- |
| Total Coliform | MPN/100mL | -- | -- | -- | 160000 | 240 | -- |
| Fecal Coliform | MPN/100mL | -- | -- | -- | 160000 | 500 | -- |
| Enterococcus | MPN/100mL | -- | -- | -- | 23040 | 210 | -- |
| Nitrate-N | mg/L | -- | -- | -- | 147 | 11.3 | -- |
| pH | pH Unit | 6.0 – 9.0 | | | 8.0 | 6.8 | -- |
| Temperature | °C | -- | -- | -- | 32 | 14.4 | -- |
| Turbidity | NTU | 75 | 100 | 225 | 21.6 | 2.9 | -- |
| Marine Aquatic Life | | | | | | | |
| Arsenic (As) | µg/L | -- | -- | -- | 1.7 | <0.7 | -- |
| Cadmium (Cd) | µg/L | -- | -- | -- | 0.075 | <0.1 | -- |
| Chromium VI (Cr) | µg/L | -- | -- | -- | <0.04 | <0.04 | -- |
| Copper (Cu) | µg/L | 63 | -- | 610 | 22 | <10 | -- |
| Lead (Pb) | µg/L | -- | -- | -- | 1.2 | <3 | -- |
| Mercury (Hg) | µg/L | -- | -- | -- | <5 | <0.03 | -- |
| Nickel (Ni) | µg/L | -- | -- | -- | 2.1 | 1.4 | -- |
| Selenium (Se) | µg/L | -- | -- | -- | 7.8 | <1 | -- |
| Silver (Ag) | µg/L | -- | -- | -- | 0.12 | <0.2 | -- |
| Zinc (Zn) | µg/L | -- | -- | -- | 66 | 46 | -- |
| Cyanide | µg/L | 61 | -- | 240 | <20 | <20 | -- |
| Total Residual Chlorine (TRC) | µg/L | 120 | -- | 490 | 102 | <100 | -- |
| Ammonia-N | mg/L | -- | -- | -- | 13.7 | <10 | -- |
| Acute Toxicity | TUa | -- | -- | -- | -- | -- | -- |
| Chronic Toxicity | TUc | -- | -- | 61 | 56 | 18 | -- |
| Non-Chlorinated Phenolic Compounds | µg/L | -- | -- | -- | <0.91 | <0.6 | -- |
| Chlorinated Phenolic Compounds | µg/L | 61 | -- | 240 | <0.99 | <0.6 | -- |
| Endosulfan | µg/L | -- | -- | -- | <0.005 | <0.003 | -- |
| Endrin | µg/L | 0.12 | -- | 0.24 | <0.005 | <0.003 | -- |
| HCH | µg/L | 0.24 | -- | 0.49 | <0.004 | <0.002 | -- |

| Parameter | Units | Effluent Limitation Order No. R4-2008-0028 | | | Monitoring Data (January 2008 – May 2013) | | |
|--------------------------------------|-------|---|----------------|---------------|--|-------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Maximum Effluent Concentration | Lowest Effluent Concentration | Highest Daily Discharge |
| Radioactivity | | | | | | | |
| Gross alpha | pCi/L | -- | -- | 15 | 8.7 | 1.9 | -- |
| Gross beta | pCi/L | -- | -- | 50 | 6.1 | 0.97 | -- |
| 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 - Noncarcinogens | | | | | | | |
| Acrolein | µg/L | -- | -- | -- | <10 | <1.7 | -- |
| Antimony | µg/L | -- | -- | -- | 0.31 | <0.7 | -- |
| Bis (2-Chloroethoxy) methane | µg/L | -- | -- | -- | <0.93 | <0.7 | -- |
| Bis (2-Chloroisopropyl) ether | µg/L | -- | -- | -- | <0.81 | <0.6 | -- |
| Chlorobenzene | µg/L | -- | -- | -- | <0.3 | <0.18 | -- |
| Chromium III (Cr) | µg/L | -- | -- | -- | 1.3 | <0.5 | -- |
| Di-n-Butyl Phthalate | µg/L | -- | -- | -- | <0.91 | <0.6 | -- |
| Dichlorobenzene | µg/L | -- | -- | -- | <0.95 | <0.18 | -- |
| Diethyl phthalate | µg/L | -- | -- | -- | <0.86 | <0.6 | -- |
| Dimethyl phthalate | µg/L | -- | -- | -- | <0.97 | <0.7 | -- |
| 4,6-dinitro-2-methylphenol | µg/L | -- | -- | -- | <5 | <0.6 | -- |
| 2,4-dinitrophenol | µg/L | -- | -- | -- | <0.83 | <0.6 | -- |
| Ethylbenzene | µg/L | -- | -- | -- | <0.26 | <0.2 | -- |
| Fluoranthene | µg/L | -- | -- | -- | <0.03 | <0.02 | -- |
| Hexachlorocyclopentadiene | µg/L | -- | -- | -- | <0.9 | <0.8 | -- |
| Nitrobenzene | µg/L | -- | -- | -- | <0.95 | <0.7 | -- |
| Thallium | µg/L | -- | -- | -- | <1 | <0.07 | -- |
| Toluene | µg/L | -- | -- | -- | <0.2 | <0.19 | -- |
| Tributyltin | µg/L | 0.085 | -- | -- | <0.04 | <0.04 | -- |
| 1,1,1-trichloroethane | µg/L | -- | -- | -- | <0.20 | <0.19 | -- |
| Human Health - Carcinogens | | | | | | | |
| Acrylonitrile | µg/L | 6.1 | -- | -- | <0.7 | <0.69 | -- |
| Aldrin | µg/L | 0.0013 | -- | -- | <0.004 | <0.003 | -- |
| Benzene | µg/L | -- | -- | -- | <0.2 | <0.18 | -- |
| Benzidine | µg/L | 0.0042 | -- | -- | <5 | <5 | -- |
| Beryllium (Be) | µg/L | 2.0 | -- | -- | <0.3 | <0.01 | -- |
| Bis (2-Chloroethyl) ether | µg/L | 2.8 | -- | -- | <0.95 | <0.9 | -- |
| Bis(2-ethylhexyl)-phthalate | µg/L | -- | -- | -- | 62 | <0.95 | -- |

| Parameter | Units | Effluent Limitation Order No. R4-2008-0028 | | | Monitoring Data (January 2008 – May 2013) | | |
|--------------------------------------|-------|---|----------------|---------------|--|-------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Maximum Effluent Concentration | Lowest Effluent Concentration | Highest Daily Discharge |
| Carbon tetrachloride | µg/L | -- | -- | -- | <0.3 | <0.16 | -- |
| Chlordane | µg/L | 0.0014 | -- | -- | <0.04 | <0.005 | -- |
| Chlorodibromomethane | µg/L | -- | -- | -- | <0.4 | <0.16 | -- |
| Chloroform | µg/L | -- | -- | -- | <0.3 | <0.19 | -- |
| DDT | µg/L | 0.010 | -- | -- | <0.004 | <0.003 | -- |
| 1,4-Dichlorobenzene | µg/L | -- | -- | -- | <0.93 | <0.18 | -- |
| 3,3'-Dichlorobenzidine | µg/L | 0.49 | -- | -- | <5 | <0.2 | -- |
| 1,2-dichloroethane | µg/L | -- | -- | -- | <0.3 | <0.18 | -- |
| 1,1-dichloroethylene | µg/L | -- | -- | -- | <0.3 | <0.21 | -- |
| Dichlorobromomethane | µg/L | -- | -- | -- | <0.3 | <0.17 | -- |
| Dichloromethane (methylene chloride) | µg/L | -- | -- | -- | <0.8 | <0.2 | -- |
| 1,3-dichloropropene | µg/L | -- | -- | -- | <0.3 | <0.16 | -- |
| Dieldrin | µg/L | 0.0024 | -- | -- | <0.004 | <0.003 | -- |
| 2,4-Dinitrotolulene | µg/L | -- | -- | -- | <0.96 | <0.6 | -- |
| 1,2-Diphenylhydrazine | µg/L | 9.8 | -- | -- | <0.9 | <0.6 | -- |
| Halomethanes | µg/L | -- | -- | -- | 0.46 | <0.17 | -- |
| Heptachlor | µg/L | 0.0031 | -- | -- | <0.005 | <0.003 | -- |
| Heptachlor epoxide | µg/L | 0.0012 | -- | -- | <0.004 | <0.003 | -- |
| Hexachlorobenzene | µg/L | 0.013 | -- | -- | <1 | <0.91 | -- |
| Hexachlorobutadiene | µg/L | -- | -- | -- | <1 | <0.92 | -- |
| Hexachloroethane | µg/L | -- | -- | -- | <1 | <0.94 | -- |
| Isophorone | µg/L | -- | -- | -- | <0.93 | <0.8 | -- |
| N-Nitrosodimethylamine | µg/L | -- | -- | -- | <0.88 | <0.8 | -- |
| N-Nitrosodi-N-propylamine | µg/L | 23 | -- | -- | <0.97 | <0.6 | -- |
| N-Nitrosodiphenylamine | µg/L | -- | -- | -- | <0.83 | <0.6 | -- |
| PAH | µg/L | 0.54 | -- | -- | <0.03 | <0.02 | -- |
| PCBs | µg/L | 0.0012 | -- | -- | <0.06 | <0.04 | -- |
| TCDD equivalents | µg/L | 2.4×10^{-7} | -- | -- | 1.7×10^{-7} | 2.2×10^{-8} | -- |
| 1,1,2,2-tetrachloroethane | µg/L | -- | -- | -- | <0.6 | <0.1 | -- |
| Tetrachloroethylene | µg/L | -- | -- | -- | <0.2 | <0.19 | -- |
| Toxaphene | µg/L | 0.013 | -- | -- | <0.5 | <0.2 | -- |
| Trichloroethylene | µg/L | -- | -- | -- | <0.3 | <0.2 | -- |
| 1,1,2-trichloroethane | µg/L | -- | -- | -- | <0.4 | <0.16 | -- |
| 2,4,6-Trichlorophenol | µg/L | 18 | -- | -- | <0.97 | <0.6 | -- |
| Vinyl chloride | µg/L | -- | -- | -- | <0.3 | <0.25 | -- |

D. Compliance Summary

Monitoring data was reviewed to determine compliance by the Discharger with the effluent limitations specified in Order No. R4-2008-0028. From August 2008 through August 2012, ten (10) violations of Order No. R4-2008-0028 were noted. These violations include effluent limitation exceedances BOD (2011). In addition three (3) reporting violations were noted in the self-monitoring reports during the period August 2008 through August 2012; total or fecal coliforms (2011), temperature (2009), TRC (2009), pH (2009), BOD (2009), settleable solids (2009), and 24 priority pollutants (2008) were not monitored as required by the monitoring and reporting program in Order No. R4-2008-0028 during the period August 2008 through August 2012. In 2009, the Storm Water Pollution prevention Plan (SWPPP) was provided but it was found to have been updated before the adoption of the current permit and did not accurately reflect Facility Operations, and the Spill Clean-up Contingency Plan (SCCP) was not available.

E. Planned Changes – Not Applicable

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 is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the CWC (commencing with section 13370). It serves as an NPDES permit for point source discharges from this Facility to surface waters and WDRs pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under CWC 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 Public Resources Code (PRC).

C. State and Federal Regulations, Policies, and Plans

1. Basin Plan. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. In addition, the Basin Plan implements State Water Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential MUN-designated water bodies. MUN is not applicable to this discharge.

Beneficial uses applicable to the Pacific Ocean in the vicinity of Santa Catalina Island are as follows:

Table 4. Basin Plan Beneficial Uses

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|-----------------|---|---|
| 001 | Pacific Ocean, Santa Catalina Island nearshore zones* (Hydro. Unit No. 406.40) *Nearshore zone is defined as the zone 1000 feet from the shoreline or the 30-foot contours, whichever is further from the shoreline. | <u>Existing:</u> Navigation (NAV), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Commercial and Sport Fishing (COMM), Marine Habitat (MAR), Rare, Threatened, or Endangered Species (RARE), Shell Harvesting (SHELL), and Preservation of Biological Habitats (BIOL). <u>Potential:</u> Spawning, Reproduction, and /or Early Development (SPWN) and Municipal and Domestic Supply (MUN) |

Requirements of this Order implement the Basin Plan.

The Basin Plan relies primarily on the requirements of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan, 2012) for protection of the beneficial uses of the state ocean waters. The Basin Plan, however, may contain additional water quality objectives applicable to the Discharger.

2. **Thermal Plan.** The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters. 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, and 2012. The State Water Board adopted the most recent amended Ocean Plan on October 16, 2012. The Office of Administration Law approved it on July 3, 2013. USEPA approved it on August 19, 2013. The 2012 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 5. Ocean Plan Beneficial Uses

| Discharge Point | Receiving Water | Beneficial Uses |
|-----------------|-----------------|--|
| 001 | Pacific Ocean | NAV; REC-1; REC-2; COMM; MAR; Wildlife Habitat (WILD); RARE; Migration of Aquatic Organisms (MIGR); SPWN; SHELL; and, preservation and enhancement of designated ASBS ¹ . |

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

¹ There is no ASBS designated area in the vicinity of this discharge.

- 4. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (chapter 40 of the Code of Federal Regulations (40 CFR) part 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 both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, and pH are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are carried over from the previous permit.

WQBELs 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. All beneficial uses and water quality objectives 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 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 part 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 Policies.** 40 CFR part 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 ("Statement of Policy with respect to Maintaining the Quality of the Waters of the State") 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 discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16.
- 7. Anti-Backsliding Requirements.** Sections 402(o)(2) 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 be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. Except for copper, all effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order. The Regional Water Board's rationale for not including the effluent limitations for copper in this Order is provided later in this Fact Sheet.

- 8. Endangered Species Act (ESA).** 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 (FGC) sections 2050 to 2097) or the federal ESA (16 United States Code (USC) sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable ESA.
- 9. Water Rights.** Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Discharger must file a petition with the State Water Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under CWC section 1211. However, since this is an ocean discharge, CWC section 1211 is not applicable to this permit.
- 10. Monitoring and Reporting.** 40 CFR part 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 MRP establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.
- 11. Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR part 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. This Order contains sewage sludge/biosolids requirements pursuant to 40 CFR part 503 that are applicable to the Discharger.

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

The receiving water (Pacific Ocean) is part of the Santa Catalina Subwatershed. In general, the water quality of ocean waters in the vicinity of the island is good. However, the Avalon Beach is listed as impaired for indicator bacteria under the 2006 CWA section 303(d) list. An effluent dispersion study, conducted in the summer of 2002, as required by Order No. R4-2002-0094, concluded that the Discharger's wastewater plume does not appear likely to encroach toward the shoreline during strongly stratified conditions, which occur in the summer through early fall, and that the wastewater plume is unlikely to reach the Avalon Bay. Given the results of the dispersion study, and the fact that Avalon WWTP chlorinates the effluent (for disinfection), the effluent from the Avalon WWTF is unlikely to be the cause of the high bacteria counts at Avalon Beach.

In response to the CWA section 303(d) listing and spills from Avalon's sewer collection system, the Regional Water Board adopted a Cease and Desist Order (CDO) and TMDL for Avalon Beach on April 5, 2012. Resolution No. R4-2012-0077 requires the City to cease and desist discharging waste in violation of requirements in Regional Board Order No. R4-2008-0028 and State Water Board Order No. 2006-0003-DWQ and to implement a Total Maximum Daily Load (TMDL) for Avalon Beach. This TMDL was approved by the Regional Water Board and became effective on April 5, 2012.

E. Other Plans, Policies and Regulations

1. **Secondary Treatment Regulations.** 40 CFR part 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.
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 part 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued the statewide General Industrial Storm Water Permit, *General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water 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 to regulate storm water discharges associated with industrial activity.

The Discharger developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP) to comply with the State Water Board's (Order No. 97-03-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 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, to provide a consistent, statewide regulatory approach to address SSOs. 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 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 part 122.41 (e)), report any non-compliance (40 CFR part 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR part 122.41(d)).

The requirements contained in this Order sections V.C.3.b (SCCP section), V.C.4 (Construction, Operation and Maintenance Specifications section), and V.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 Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections V.C.3.b, V.C.4, and V.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 supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

4. **Watershed Management.** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in Los Angeles and Ventura Counties. The approach is in accordance with USEPA guidance on *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective is to provide a comprehensive and integrated strategy resulting in water resource protection, enhancement and restoration, while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. 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 (MRP; Attachment E) foster implementation of this approach. The MRP requires the Discharger to participate in regional water quality and kelp bed monitoring programs in the Southern California Bight.

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 40 CFR part 122.44(a) requires that permits include applicable technology-based effluent limitations and standards (TBELs); and 40 CFR part 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. 40 CFR part 122.44(d) also specifies that WQBELs may be established using: (1) USEPA criteria guidance under CWA section 304(a); (2) proposed state criteria or a state policy interpreting narrative criteria supplemented with other relevant information; or (3) an indicator parameter. NPDES regulations require WQBELs for any pollutant that causes, has the reasonable potential to cause, or contributes to the exceedance of a receiving water quality criterion or objective.

Mass-based effluent limitations are established to ensure that proper treatment, and not dilution, is employed to comply with effluent concentration limitations. 40 CFR part 122.45(f)(1) requires that all permit limitations, standards, or prohibitions be expressed in terms of mass, except under the following conditions: (1) for pH, temperature, radiation, or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing a technology-based permit limitation on a case-by-case basis, a limitation based on mass is infeasible because the mass of the pollutant cannot be related to a measure of operation, although the limitation must ensure that dilution will not be used as a substitute for treatment.

A. Discharge Prohibitions

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR part 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR part 133.

2. Applicable TBELs

Pursuant to section 301 (b)(1)(B) and 304 (d)(1) of the CWA, USEPA has established standards of performance for secondary treatment at 40 CFR part 133. Secondary treatment is defined in terms of three parameters: 5-day BOD, TSS, and pH. The following summarizes the technology-based requirements for secondary treatment, which are applicable to the Plant:

Table 6. Summary of TBELs for Secondary Treatment Facility established by 40 CFR part 133.102

| Constituent | Average Monthly | Average Weekly | Percent Removal |
|-----------------------|-----------------|----------------|-----------------|
| BOD ₅ 20°C | 30 mg/L | 45 mg/L | 85% |
| TSS | 30 mg/L | 45 mg/L | 85% |
| pH | 6.0 to 9.0 | | |

Table 2 of the Ocean Plan also establishes the following TBELs for POTWs, which are applicable to the Plant:

Table 7. Summary of TBELs for POTWs established by the Ocean Plan

| Constituent | Average Monthly | Average Weekly | Instantaneous Maximum | Percent Removal |
|-------------------|-----------------|----------------|-----------------------|------------------|
| Oil & Grease | 25 mg/L | 40 mg/L | 75 mg/L | -- |
| TSS | -- | -- | -- | 75% ² |
| Settleable Solids | 1.0 ml/L | 1.5 ml/L | 3.0 ml/L | -- |
| Turbidity | 75 NTU | 100 NTU | 225 NTU | -- |
| pH | 6.0 to 9.0 | | | |

All TBELs that are more stringent than those required by 40 CFR and/or the Ocean Plan have been carried over from Order No. R4-2008-0028 to prevent backsliding. All TBELs are independent of the dilution ratio for the discharge outfall. In addition to the concentration-based effluent limitations, mass-based effluent limitations based on a design flow rate of 1.2 mgd are also included.

² Dischargers shall, as a monthly average, remove 85% of TSS from the influent stream before discharging wastewaters to the ocean, since Table 6 TSS percent removal is more stringent, except that the effluent limitation to be met shall not be lower than 60 mg/L.

The following table summarizes the TBELs for the discharge from the Facility.

Table 8. Summary of TBELS for Discharge Point No. 001

| Parameter | Units | Effluent Limitations | | | | |
|------------------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| BOD ₅ 20 ⁰ C | mg/L | 20 | 35 | -- | -- | -- |
| | lbs/day ³ | 200 | 350 | -- | -- | -- |
| | % removal | 85 | -- | -- | -- | -- |
| TSS | mg/L | 30 | 45 | -- | -- | -- |
| | lbs/day ⁵ | 300 | 450 | -- | -- | -- |
| | % removal | 85 | -- | -- | -- | -- |
| Oil and Grease | mg/L | 25 | 40 | -- | -- | 75 |
| | lbs/day ⁵ | 250 | 400 | -- | -- | -- |
| Settleable Solids | ml/L | 1.0 | 1.5 | -- | -- | 3.0 |
| Turbidity | NTU | 75 | 100 | -- | -- | 225 |
| pH | pH unit | -- | -- | -- | 6.0 | 9.0 |

³ The mass emission rates are based on the plant design flow rate of 1.2 mgd, and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR part 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR part 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and the Ocean Plan establish the beneficial uses 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 Ocean Plan also contains water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The Basin Plan also contains the bacteria objectives for water bodies designated for water contact recreation that was amended by Resolution No. 01-018. The water quality objectives from the Ocean Plan and the bacteria objective from the Basin Plan were included as receiving water limitations in this Order.

Table 1 of the Ocean Plan includes the numerical water quality objectives for toxic pollutants:

- a. Six-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total residual chlorine, acute and chronic toxicity, for the protection of marine aquatic life;
- b. 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health; and,
- c. 30-day average objectives for 42 carcinogenic chemicals for the protection of human health.

3. Expression of WQBELs

Pursuant to 40 CFR part 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 (AMEL and AWEL). It is impracticable to include only average weekly and average monthly effluent limitations in the permit, because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, MDELs, as referenced in 40 CFR part 122.45(d)(1), are included in the permit for certain constituents.

The WQBELs for marine aquatic life toxicants contained in this Order are based on water quality objectives contained in the 2012 Ocean Plan that are expressed as six-month median, daily maximum, and instantaneous maximum water quality objectives. Pursuant to anti-backsliding requirements, this Order retains the same approach to set effluent limitations for marine aquatic life toxicants in Table 1 of the 2012 Ocean Plan as AMELs.

4. Determining the Need for WQBELs

Order No. R4-2008-0028 contained effluent limitations for non-conventional and toxic pollutant parameters in Table 1 of the Ocean Plan. For this Order, the need for effluent limitations based on water quality objectives in Table 1 of the 2012 Ocean Plan was reevaluated in accordance with the reasonable potential analysis (RPA) procedures contained in Appendix VI of the 2012 Ocean Plan. This statistical RPA method (performed using RPcalc version 2.0) 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 95th percent confidence bound for the 95th 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 insufficient number of monitoring data or have 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. As required by the Ocean Plan, existing effluent limitations for these constituents are retained in the new permit. In addition, the MRP (Attachment E) of this Order also requires the Discharger to continue to monitor for these constituents for the determination of reasonable potential for these constituents in future permit renewals and/or updates.

Using this statistical procedure in combination with effluent data provided by the Discharger from January 2008 to May 2013 and a minimum initial dilution ratio of 60:1 for Discharge Point 001, Regional Water Board staff has determined that total residual chlorine, TCDD equivalents, and bis(2-ethylhexyl)phthalate constituents, when discharged through Discharge Point 001 have a reasonable potential to exceed Ocean Plan objectives (RP1). However, the results of reasonable potential analysis for cyanide, chlorinated phenolic compounds, 2,4,6-trichlorophenol, endrin, HCH, tributyltin, acrylonitrile, benzidine, beryllium, bis(2-chloroethyl)ether, chlordane, DDT, 1,2-diphenylhydrazine, 3,3'-dichlorobenzidine, aldrin, n-

nitrosodi-N-propylamine, dieldrin, heptachlor, heptachlor epoxide, hexachlorobenzene, PAHs, PCBs, and toxaphene were inconclusive (RP3). Therefore, effluent limitations for these constituents are carried over from the previous Order No R4-2008-0028.

Regional Water Board staff has determined that copper, when discharged through Discharge Point 001, does not have a reasonable potential to exceed Ocean Plan objectives (RP2). Based on this new information that shows that an effluent limitation is not required for copper, the copper effluent limitations from the previous Order No. R4-2008-0028 have not been carried over to this Order. This is consistent with the anti-backsliding exception contained in CWA section 402(o)(2)(B)(i) and 40 CFR part 122.44(l)(2)(i)(B)(1). In addition, while this Order does not contain effluent limitations for copper, this Order does include a performance goal for copper. Also, monitoring of copper was increased from semiannually to quarterly. Based on the results of this monitoring, the Regional water Board may add or revise an effluent limitation pursuant to the reopener provisions contained in this Order.

Additional analysis for total chlorine residual: Wastewater disinfection with chlorine usually produces chlorine residual and the byproducts of chlorination are highly toxic to aquatic life. The daily maximum and instantaneous maximum limitations for total chlorine residual are prescribed in this Order since effluent from the Avalon WWTF is routinely chlorinated before discharge.

5. WQBEL Calculations

From the Table 1 water quality objectives of the Ocean Plan, WQBELs are calculated according to the following equation for all pollutants, except for acute toxicity (if applicable) and radioactivity:

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

where

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

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

C_s = background seawater concentration ($\mu\text{g/L}$) (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. Prior to issuance of Order No. R4-2002-0094, staff of the State Water Board had determined the minimum probable initial dilution for Discharge Point 001 to be 60:1. In this permit, the same dilution ratio of 60:1 has also been applied to Discharge Point 001. D_m is equal to 60.

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

Table 9. Pollutants with Background Seawater Concentrations

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

As examples, WQBELs for bis (2-ethyl hexyl) phthalate and chronic toxicity are calculated as follows:

Table 10. Ocean Plan Water Quality Objectives (Co) for Chronic Toxicity and Tributyltin

| Constituents | 6-Month Median | Daily Maximum | Instantaneous Maximum | 30 Day Average |
|-------------------------------|----------------|---------------|-----------------------|----------------|
| Chronic toxicity | -- | 1 TUc | -- | -- |
| Bis (2-ethyl hexyl) phthalate | -- | -- | -- | 3.5 µg/L |

Using the equation, $C_e = C_o + D_m(C_o - C_s)$, 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 (Dm) of 60:1 is applied.

Chronic Toxicity

$C_e = 1 + 60 (1-0) = 61 \text{ TUc (Daily Maximum)}$

Bis (2-ethylhexyl) phthalate

$C_e = 3.5 + 60 (3.5-0) = 210 \text{ µg/L (Average Monthly)}$

Based on the procedures described above, WQBELs would have been calculated for all Table 1 pollutants (excluding radioactivity) from the Ocean Plan and incorporated into this Order as applicable.

Determination of radioactivity limitation: Since the descriptive water quality objective for radioactivity in the 2012 California Ocean Plan fails to establish an applicable narrative or numerical effluent limit for radionuclides, Regional Water Board staff used Best Professional Judgment (BPJ) to establish radioactivity limitations for the effluent using Maximum Contaminant Levels (MCLs) for the drinking water specified in Title 22, California Code of Regulations (CCR) because it is the only scientifically-based regulatory criteria available. These values have been carried over from Order No. R4-2008-0028.

Table 12. Summary of WQBELs for Discharge Point No. 001

| Parameter | Units | Effluent Limitations | | | | | |
|----------------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-----------------------|------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Six-Month Median |
| Chronic toxicity | TUc | -- | -- | 61 | -- | -- | -- |
| Radioactivity | | | | | | | -- |
| Gross alpha | pCi/L | -- | -- | 15 | -- | -- | -- |
| Gross beta | pCi/L | -- | -- | 50 | -- | -- | -- |
| Combined Radium-226 & Radium-228 | pCi/L | -- | -- | 5.0 | -- | -- | -- |
| Tritium | pCi/L | -- | -- | 20,000 | -- | -- | -- |
| Strontium-90 | pCi/L | -- | -- | 8.0 | -- | -- | -- |
| Uranium | pCi/L | -- | -- | 20 | -- | -- | -- |
| Cyanide | µg/L | 61 | -- | 240 | -- | 610 | -- |
| | lbs/day ⁴ | 0.61 | -- | 2.4 | -- | -- | -- |
| Total residual chlorine | µg/L | 120 | -- | 490 | -- | 3700 | -- |
| | lbs/day ⁴ | 1.2 | -- | 4.9 | -- | -- | -- |
| Phenolic compounds (chlorinated) | µg/L | 61 | -- | 240 | -- | 610 | -- |
| | lbs/day ⁴ | 0.61 | -- | 2.4 | -- | -- | -- |
| 2,4,6-Trichlorophenol | µg/L | 18 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.18 | -- | -- | -- | -- | -- |
| Endrin | µg/L | 0.12 | -- | 0.24 | -- | 0.37 | -- |
| | lbs/day ⁴ | 0.0012 | -- | 0.0024 | -- | -- | -- |
| HCH | µg/L | 0.24 | -- | 0.49 | -- | 0.73 | -- |
| | lbs/day ⁴ | 0.0024 | -- | 0.0049 | -- | -- | -- |
| Tributyltin | µg/L | 0.085 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.00085 | -- | -- | -- | -- | -- |
| Acrylonitrile | µg/L | 6.1 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.061 | -- | -- | -- | -- | -- |
| Aldrin | µg/L | 0.0013 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000013 | -- | -- | -- | -- | -- |
| Benzidine | µg/L | 0.0042 | -- | -- | -- | -- | -- |

| Parameter | Units | Effluent Limitations | | | | | |
|-----------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-----------------------|------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Six-Month Median |
| | lbs/day ⁴ | 0.000042 | -- | -- | -- | -- | -- |
| Beryllium | µg/L | 2.0 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.020 | -- | -- | -- | -- | -- |
| Bis(2-chloro-ethyl)ether | µg/L | 2.8 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.028 | -- | -- | -- | -- | -- |
| Bis(2-ethylhexyl) phthalate | µg/L | 210 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 2.1 | -- | -- | -- | -- | -- |
| Chlordane | µg/L | 0.0014 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000014 | -- | -- | -- | -- | -- |
| DDT | µg/L | 0.010 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.00010 | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | µg/L | 0.49 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.0049 | -- | -- | -- | -- | -- |
| Dieldrin | µg/L | 0.0024 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000024 | -- | -- | -- | -- | -- |
| 1,2-Diphenylhydrazine | µg/L | 9.8 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.098 | -- | -- | -- | -- | -- |
| Heptachlor | µg/L | 0.0031 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000031 | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | µg/L | 0.0012 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000012 | -- | -- | -- | -- | -- |
| Hexachlorobenzene | µg/L | 0.013 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.00013 | -- | -- | -- | -- | -- |
| N-Nitrosodi-N- | µg/L | 23 | -- | -- | -- | -- | -- |

| Parameter | Units | Effluent Limitations | | | | | |
|-------------------------------|----------------------|------------------------|----------------|---------------|-----------------------|-----------------------|------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Six-Month Median |
| propylamine | lbs/day ⁴ | 0.23 | -- | -- | -- | -- | -- |
| PAHs ⁴ | µg/L | 0.54 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.0054 | -- | -- | -- | -- | -- |
| PCBs ⁵ | µg/L | 0.0012 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.000012 | -- | -- | -- | -- | -- |
| Toxaphene | µg/L | 0.013 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 0.00013 | -- | -- | -- | -- | -- |
| TCDD equivalents ⁵ | µg/L | 0.00000024 | -- | -- | -- | -- | -- |
| | lbs/day ⁴ | 2.4 x 10 ⁻⁹ | -- | -- | -- | -- | -- |

6. Whole Effluent Toxicity (WET)

The 2012 Ocean Plan specifies that the Discharger shall conduct chronic toxicity testing for ocean water discharges if the minimum dilution of the effluent falls below 100:1 at the edge of the mixing zone. At this dilution ratio condition, the Ocean Plant does not require acute toxicity testing. Since the applicable dilution factor of 60:1 for the Facility outfall is below 100:1, this Order requires the Discharger to only conduct chronic toxicity testing.

Although all chronic toxicity testing results reported during the term of the previous Order exhibited compliance with the chronic toxicity limit, the chronic toxicity limit shall be retained in the Order in order to provide a backstop to prevent the discharge of toxic pollutants in toxic amounts.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR part 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Except for copper, all effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order No. R4-2008-0028.

For the purpose of satisfying the anti-backsliding requirements, the effluent limitations for the cyanide, total residual chlorine, chronic toxicity, chlorinated phenolic compounds, 2,4,6-trichlorophenol, endrin, parameters associated with radioactivity (gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90, and uranium), hexachlorocyclohexane (HCH), tributyltin, acrylonitrile, aldrin, benzidine, beryllium, bis(2-

⁴ Please refer to Attachment A for definitions.

chloroethyl)ether, chlordane, DDT, 3,3'-dichlorobenzidine, dieldrin, 1,2-diphenylhydrazine, heptachlor, heptachlor epoxide, hexachlorobenzene, n-nitrosodi-n-propylamine, PAHs, PCBs, TCDD equivalents, and toxaphene pollutants contained in previous Order R4-2008-0028 were carried over.

Based on the new information that shows that copper discharged through Discharge Point 001 does not have a reasonable potential to exceed Ocean Plan objectives (RP2), thus indicating an effluent limitation is not required, the copper effluent limitations from Order No. R4-2008-0028 have not been carried over to this Order. This is consistent with the anti-backsliding exception contained in CWA 402(o)(B)(i) and 40 CFR part 122.44(l)(2)(i)(B)(1). In addition, while this Order does not contain effluent limitations for copper, this Order does include a performance goal for copper. Also, monitoring of copper was increased from semiannually to quarterly. Based on the results of this monitoring, the Regional Water Board may add or revise an effluent limitation pursuant to the reopener provisions contained in this Order.

2. Satisfaction of Federal and State Antidegradation Policies

40 CFR part 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution No. 68-16, *Statement of Policy with Respect to Maintaining the Quality of the Waters of the State*. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR part 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR part 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. Discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16.

E. Performance Goals

Chapter III, section F.1, of the 2012 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 antidegradation policies 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 the Region, they have not been continued for discharges that are to inland surface waters. For inland surface waters, the California Toxics Rule (CTR; 40 CFR part 131.38) has resulted in effluent limits as stringent as many performance goals. However, the Ocean Plan allows for significant dilution, and the continued use of performance goals in permits authorizing ocean discharges serves to maintain existing treatment levels and effluent quality and supports state and federal antidegradation policies.

Performance goals were calculated consistently with the requirements outlined in the 2012 Ocean Plan, based on the performance of the Avalon WWTF since 2008. The calculated performance goals were then compared to the performance goals included in Order R4-2008-0028. If a performance goal included in Order R4-2008-0028 was lower, then the performance goal in Order R4-2008-0028 was carried over to this Order. The purpose of this approach is to prevent degradation of water quality and to encourage the Discharger to maintain its best treatment level and effluent quality. 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 as 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

1. For constituents that have been routinely detected in the effluent (at least 20 percent detectable data), performance goals are based on the one-sided, $UCB_{95/95}$ of January 2008 through May 2013 performance data (after complete mixing) using the RPA protocol contained in the 2012 Ocean Plan. Effluent data are assumed lognormally distributed. Performance goals are calculated according to the equation $C_{PG} = Co + Dm(Co - Cs)$ in the Ocean Plan and by setting $Co = UCB_{95/95}$.
 - a. If the maximum detected effluent concentration (MEC) is greater than the calculated performance goal, the calculated performance goal is used as the performance goal; or
 - b. If the MEC is less than the calculated performance goal, the MEC is used as the performance goal.

For example, the performance goals for silver and arsenic at Discharge Point 001 are calculated as follows:

Silver

$$Co = UCB_{95/95} = 0.1608 \mu\text{g/L}; \quad Dm = 60; \quad Cs = 0.16 \mu\text{g/L}; \quad MEC = 0.12 \mu\text{g/L}$$
$$C_{PG} = \text{Performance Goal} = 0.1608 \mu\text{g/L} + 60(0.1608 \mu\text{g/L} - 0.16 \mu\text{g/L}) = 0.21 \mu\text{g/L}$$

Since the MEC of 0.12 $\mu\text{g/L}$ is less than the calculated performance goal of 0.21 $\mu\text{g/L}$, the performance goal for silver is prescribed as 0.12 $\mu\text{g/L}$.

Ammonia as Nitrogen

$$Co = UCB_{95/95} = 217.36 \mu\text{g/L}; \quad Dm = 60; \quad Cs = 0 \mu\text{g/L}; \quad MEC = 13700 \mu\text{g/L}$$

$$C_{PG} = \text{Performance Goal} = 217.36 \mu\text{g/L} + 60(217.36 \mu\text{g/L} - 3 \mu\text{g/L}) = 13259\mu\text{g/L}$$

Since the MEC of 13700 $\mu\text{g/L}$ is greater than the calculated performance goal of 13259 $\mu\text{g/L}$, the performance goal for ammonia as nitrogen is prescribed to two significant figures as 13000 $\mu\text{g/L}$, which equals 13 mg/L.

2. 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 (MLs) listed in the 2012 Ocean Plan. However, if the MEC is less than the calculated value based on ML, the MEC is used as the performance goal.
3. For constituents with no effluent limitations, if the performance goal derived from above steps exceeds the respective calculated Ocean Plan effluent limitation, the calculated effluent limitation is then prescribed as the performance goal for that constituent.
4. For constituents with effluent limitations, if the performance goal derived from above steps exceeds respective effluent limitation, then performance goal is not prescribed for that constituent.

The performance goals for Discharge Point 001 (EFF-01) are prescribed in this Order. The listed performance goals are not enforceable effluent limitations or standards. However, the Discharger shall maintain, if not improve, its treatment efficiency. Any exceedance 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 within 90 days to the Regional Water Board discussing 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.

Table 13. Summary of Final Effluent Limitations and Performance Goals for EFF-001

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|-----------------------|----------------------|----------------------|----------------|---------------|-----------------------|-------------------------------|---|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| BOD ₅ 20°C | mg/L | 20 | 35 | -- | -- | -- | Existing/ Secondary treatment standard |
| | lbs/day ⁵ | 200 | 350 | -- | -- | | |
| | % removal | 85 | -- | -- | -- | | |
| TSS | mg/L | 30 | 45 | -- | -- | -- | Existing/ Secondary treatment standard |
| | lbs/day ⁵ | 300 | 450 | -- | -- | | |
| | % removal | 85 | -- | -- | -- | | |
| pH | pH unit | 6.0 – 9.0 | | | | -- | Existing/Ocean Plan |
| Oil and Grease | mg/L | 25 | 40 | -- | 75 | -- | Existing/Ocean Plan |
| | lbs/day ⁵ | 250 | 400 | -- | -- | | |
| Settleable Solids | ml/L | 1.0 | 1.5 | -- | 3.0 | -- | Existing/Ocean Plan |
| Turbidity | NTU | 75 | 100 | -- | 225 | -- | Existing/Ocean Plan |

⁵ See Procedures for the determination of performance goals at section IV.E.1. of Fact Sheet.

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|--------------------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-------------------------------|--------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| Marine Aquatic Life Toxicants | | | | | | | |
| Arsenic | µg/L | -- | -- | -- | -- | 1.7 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.017 | |
| Cadmium | µg/L | -- | -- | -- | -- | 0.075 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.00075 | |
| Chromium (VI) | µg/L | -- | -- | -- | -- | 0.04 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0004 | |
| Copper | µg/L | -- | -- | -- | --0 | 22 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.22 | |
| Lead | µg/L | -- | -- | -- | -- | 1.2 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.012 | |
| Mercury | µg/L | -- | -- | -- | -- | 1.0 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.01 | |
| Nickel | µg/L | -- | -- | -- | -- | 2.1 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.021 | |
| Selenium | µg/L | -- | -- | -- | -- | 7.8 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.078 | |
| Silver | µg/L | -- | -- | -- | -- | 0.12 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0012 | |
| Zinc | µg/L | -- | -- | -- | -- | 66 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.66 | |
| Cyanide | µg/L | 61 | -- | 240 | 610 | 20 | Existing carryover |
| | lbs/day ⁵ | 0.61 | -- | 2.4 | -- | 0.2 | |
| Total chlorine residual | µg/L | 120 | -- | 490 | 3700 | 102 | Existing carryover |
| | lbs/day ⁵ | 1.2 | -- | 4.9 | 37 | 1.02 | |
| Ammonia as N | mg/L | -- | -- | -- | -- | 13 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 130 | |
| Phenolic compounds (non-chlorinated) | µg/L | -- | -- | -- | -- | 0.89 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0089 | |
| Phenolic compounds (chlorinated) | µg/L | 61 | -- | 240 | 610 | 0.99 | Existing carryover |
| | lbs/day ⁵ | 0.61 | -- | 2.4 | -- | 0.0099 | |
| Endosulfan | µg/L | -- | -- | -- | -- | 0.005 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.00005 | |
| HCH | µg/L | 0.24 | -- | 0.49 | 0.73 | 0.005 | Existing carryover |
| | lbs/day ⁵ | 0.0024 | -- | 0.0049 | 0.0073 | 0.00005 | |
| Endrin | µg/L | 0.12 | -- | 0.24 | 0.37 | 0.005 | Existing carryover |
| | lbs/day ⁵ | 0.0012 | -- | 0.0024 | 0.0037 | 0.00005 | |

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|---|----------------------|----------------------|----------------|---------------|-----------------------|-------------------------------|---------------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| Acute toxicity | TUa | -- | -- | -- | -- | -- | Not required per the Ocean Plan |
| Chronic toxicity | TUc | -- | -- | 61 | -- | -- | Existing carryover, Ocean Plan |
| Radioactivity | | | | | | | |
| Gross alpha | pCi/L | -- | -- | 15 | -- | -- | Existing carryover |
| Gross beta | pCi/L | -- | -- | 50 | -- | -- | Existing carryover |
| Combined Radium-226 & Radium-228 | pCi/L | -- | -- | 5.0 | -- | -- | Existing carryover |
| Tritium | pCi/L | -- | -- | 20,000 | -- | -- | Existing carryover |
| Strontium-90 | pCi/L | -- | -- | 8.0 | -- | -- | Existing carryover |
| Uranium | pCi/L | -- | -- | 20 | -- | -- | Existing carryover |
| Human Health Toxicants – Non Carcinogens | | | | | | | |
| Acrolein | µg/L | -- | -- | -- | -- | 10 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.1 | |
| Antimony | µg/L | -- | -- | -- | -- | 0.31 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0031 | |
| Bis(2-chloroethoxy) methane | µg/L | -- | -- | -- | -- | 1.7 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.017 | |
| Bis(2-chloroisopropyl) ether | µg/L | -- | -- | -- | -- | 0.81 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0081 | |
| Chlorobenzene | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| Chromium (III) | µg/L | -- | -- | -- | -- | 1.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.013 | |
| Di-n-butyl-phthalate | µg/L | -- | -- | -- | -- | 0.91 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0091 | |
| Dichlorobenzenes | µg/L | -- | -- | -- | -- | 0.95 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0095 | |
| Diethyl phthalate | µg/L | -- | -- | -- | -- | 0.86 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0086 | |
| Dimethyl phthalate | µg/L | -- | -- | -- | -- | 0.97 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0097 | |
| 2-Methyl-4,6-dinitrophenol | µg/L | -- | -- | -- | -- | 25 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.25 | |

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|---|----------------------|----------------------|----------------|---------------|-----------------------|-------------------------------|--------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| 2,4-Dinitrophenol | µg/L | -- | -- | -- | -- | 0.83 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0083 | |
| Ethyl benzene | µg/L | -- | -- | -- | -- | 0.26 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0026 | |
| Fluoranthene | µg/L | -- | -- | -- | -- | 0.03 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0003 | |
| Hexachlorocyclopentadiene | µg/L | -- | -- | -- | -- | 0.9 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.009 | |
| Nitrobenzene | µg/L | -- | -- | -- | -- | 0.95 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0095 | |
| Thallium | µg/L | -- | -- | -- | -- | 1 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.01 | |
| Toluene | µg/L | -- | -- | -- | -- | 0.2 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.002 | |
| Tributyltin | µg/L | 0.085 | -- | -- | -- | 0.04 | Existing carryover |
| | lbs/day ⁵ | 0.00085 | -- | -- | -- | 0.0004 | |
| 1,1,1-Trichloroethane | µg/L | -- | -- | -- | -- | 0.2 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.002 | |
| Human Health Toxicants – Carcinogens | | | | | | | |
| Acrylonitrile | µg/L | 6.1 | -- | -- | -- | 0.7 | Existing carryover |
| | lbs/day ⁵ | 0.061 | -- | -- | -- | 0.007 | |
| Aldrin | µg/L | 0.0013 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000013 | -- | -- | -- | -- | |
| Benzene | µg/L | -- | -- | -- | -- | 0.2 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.002 | |
| Benzidine | µg/L | 0.0042 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000042 | -- | -- | -- | -- | |
| Beryllium | µg/L | 2.0 | -- | -- | -- | 0.3 | Existing carryover |
| | lbs/day ⁵ | 0.020 | -- | -- | -- | 0.003 | |
| Bis(2-chloroethyl) ether | µg/L | 2.8 | -- | -- | -- | 0.95 | Existing carryover |
| | lbs/day ⁵ | 0.028 | -- | -- | -- | 0.0095 | |
| Bis(2-ethylhexyl) phthalate | µg/L | 210 | -- | -- | -- | 25 | RP |
| | lbs/day ⁵ | 2.1 | -- | -- | -- | 0.25 | |
| Carbon tetrachloride | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| Chlordane | µg/L | 0.0014 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000014 | -- | -- | -- | -- | |
| Chlorodibromomethane | µg/L | -- | -- | -- | -- | 0.4 | No RP |

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-------------------------------|--------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.004 | |
| Chloroform | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| DDT | µg/L | 0.010 | -- | -- | -- | 0.004 | Existing carryover |
| | lbs/day ⁵ | 0.00010 | -- | -- | -- | 0.00004 | |
| 1,4-Dichlorobenzene | µg/L | -- | -- | -- | -- | 0.93 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0093 | |
| 3,3'-Dichlorobenzidine | µg/L | 0.49 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.0049 | -- | -- | -- | -- | |
| 1,2-Dichloroethane | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| 1,1-Dichloroethylene | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| Bromodichloromethane | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| Dichloromethane | µg/L | -- | -- | -- | -- | 0.8 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.008 | |
| 1,3-Dichloropropene | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| Dieldrin | µg/L | 0.0024 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000024 | -- | -- | -- | -- | |
| 2,4-Dinitrotoluene | µg/L | -- | -- | -- | -- | 0.96 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0096 | |
| 1,2-Diphenylhydrazine | µg/L | 9.8 | -- | -- | -- | 0.9 | Existing carryover |
| | lbs/day ⁵ | 0.098 | -- | -- | -- | 0.009 | |
| Halomethanes | µg/L | -- | -- | -- | -- | 0.46 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0046 | |
| Heptachlor | µg/L | 0.0031 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000031 | -- | -- | -- | -- | |
| Heptachlor epoxide | µg/L | 0.0012 | -- | -- | -- | -- | Existing Carryover |
| | lbs/day ⁵ | 0.000012 | -- | -- | -- | -- | |
| Hexachlorobenzene | µg/L | 0.013 | -- | -- | -- | -- | Existing Carryover |
| | lbs/day ⁵ | 0.0013 | -- | -- | -- | -- | |
| Hexachlorobutadiene | µg/L | -- | -- | -- | -- | 1 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.01 | |
| Hexachloroethane | µg/L | -- | -- | -- | -- | 1 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.01 | |
| Isophorone | µg/L | -- | -- | -- | -- | 0.93 | No RP |

| Parameter | Units | Effluent Limitations | | | | Performance Goal ⁵ | Basis |
|---------------------------|----------------------|------------------------|----------------|---------------|-----------------------|-------------------------------|---------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Maximum | | |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0093 | |
| N-Nitrosodimethylamine | µg/L | -- | -- | -- | -- | 0.88 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0088 | |
| | | | | | | | |
| N-Nitrosodi-N-propylamine | µg/L | 23 | -- | -- | -- | 0.97 | Existing carryover |
| | lbs/day ⁵ | 0.23 | -- | -- | -- | 0.0097 | |
| N-Nitrosodiphenylamine | µg/L | -- | -- | -- | -- | 0.83 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.0083 | |
| PAHs | µg/L | 0.54 | -- | -- | -- | 0.03 | Existing carryover |
| | lbs/day ⁵ | 0.0054 | -- | -- | -- | 0.0003 | |
| PCBs | µg/L | 0.0012 | -- | -- | -- | -- | Existing carryover |
| | lbs/day ⁵ | 0.000012 | -- | -- | -- | -- | |
| TCDD equivalents | µg/L | 0.00000024 | -- | -- | -- | 0.00000015 | Existing, carryover |
| | lbs/day ⁵ | 2.4 x 10 ⁻⁹ | -- | -- | -- | 1.5 x 10 ⁻⁹ | |
| 1,1,2,2-Tetrachloroethane | µg/L | -- | -- | -- | -- | 0.6 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.006 | |
| Tetrachloroethylene | µg/L | -- | -- | -- | -- | 0.2 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.002 | |
| Toxaphene | µg/L | 0.013 | -- | -- | -- | -- | Existing, carryover |
| | lbs/day ⁵ | 0.00013 | -- | -- | -- | -- | |
| Trichloroethylene | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |
| 1,1,2-Trichloroethane | µg/L | -- | -- | -- | -- | 0.4 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.004 | |
| 2,4,6-Trichlorophenol | µg/L | 18 | -- | -- | -- | 0.97 | Existing, carryover |
| | lbs/day ⁵ | 0.18 | -- | -- | -- | 0.0097 | |
| Vinyl chloride | µg/L | -- | -- | -- | -- | 0.3 | No RP |
| | lbs/day ⁵ | -- | -- | -- | -- | 0.003 | |

F. Reclamation Specifications

In its Recycled Water Policy, the State Water Board directed the Regional Water Boards to “encourage the use of recycled water.” Here, the discharge of wastewater from the Facility could potentially result in water that could otherwise be beneficially reused prior to being discharged to the ocean. Beneficial reuse of the wastewater could reduce the use of potable water elsewhere. Therefore, in accordance with statewide policies concerning water reclamation, this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The Discharger is required to 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. The Discharger

is required to submit a feasibility study to the Regional Water Board 180 days after the effective date of this Order. The Discharger is also required to submit an update to this feasibility study and as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

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

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 308(a) of the federal Clean Water Act 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. CWC sections 13267 and 13383 also authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP, Attachment E of this Order, establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions; and
- Assess treatment plant performance.

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 discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP (Attachment E). This provision requires compliance with the MRP, and is based on 40 CFR parts 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including this Order) issued by the Regional Water Board. In addition to containing definition 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 CWC, and Regional Water Board policies. The MRP 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 MRP (Attachment E) and as required in the Ocean Plan.

Table 14. Monitoring Frequency Comparison

| Parameter | Monitoring Frequency (2008 Permit) | Monitoring Frequency (2013 Permit) |
|---|------------------------------------|------------------------------------|
| Total waste flow | continuous | continuous |
| Total residual chlorine | 5 days/week | 5 days/week |
| Turbidity | weekly | weekly |
| Temperature | monthly | monthly |
| pH | monthly | monthly |
| Settleable solids | monthly | monthly |
| Total dissolved solids (TDS) | monthly | monthly |
| Total suspended solids (TSS) | 5 days/week | 5 days/week |
| Oil and grease | monthly | monthly |
| BOD ₅ 20°C | 5 days/week | 5 days/week |
| Total coliform | weekly | weekly |
| Fecal Coliform | weekly | weekly |
| Enterococcus | monthly | monthly |
| Total Organic Carbon | monthly | monthly |
| Bis(2-ethylhexyl)phthalate | annually | monthly |
| Ammonia nitrogen | quarterly | quarterly |
| Nitrate nitrogen | quarterly | quarterly |
| Copper | semiannually | quarterly |
| Chronic toxicity | quarterly ⁶ | quarterly ⁶ |
| Antimony | annually | quarterly |
| Arsenic | annually | quarterly |
| Cadmium | annually | quarterly |
| Chromium (III) | annually | quarterly |
| Lead | annually | quarterly |
| Nickel | annually | quarterly |
| Selenium | annually | quarterly |
| Silver | annually | quarterly |
| Zinc | annually | quarterly |
| TCDD equivalents | quarterly | monthly |
| Methyl-tert-butyl-ether | annually | semiannually |
| Remaining pollutants in Table 1 (formerly Table B) of the 2012 Ocean Plan | annually | semiannually |
| Radioactivity | annually | semiannually |
| Pesticides | none | semiannually |

C. WET Testing Requirements

Chronic Toxicity. The Ocean Plan requires the use of critical life stage toxicity tests specified in Appendix III of the Ocean Plan to measure chronic toxicity, TU_c. A minimum of three test species

⁶ The monitoring frequency is monthly for three consecutive months during the screening period. Please refer to section V. Whole Effluent Toxicity Testing Requirements for details.

with approved test protocols shall be used to measure compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period, monitoring can be reduced to the most sensitive species. Dilution and control water should be laboratory water. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results. Chronic toxicity testing requirements defined in section V.A of the MRP (Attachment E) are specified on the basis of these Ocean Plan requirements.

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 Basin Plan, Bight Regional Monitoring Program, and the Ocean Plan.

The receiving water monitoring program contains the following components: (a) nearshore microbiological monitoring, (b) nearshore/offshore water quality monitoring, and (c) benthic sediments monitoring.

Detail about the monitoring program are contained in Attachment E.

E. Other Monitoring Requirements

1. Outfall Inspection

The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

2. Biosolids/Sludge Monitoring

This section establishes monitoring and reporting requirements for the storage, handling and disposal practices of sludge generated from the operation of this Facility.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

Section 122.41(a)(1) and (b) through (n) 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.

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan and the Ocean Plan.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

If the discharge consistently exceeds an effluent limitation for toxicity, the Discharger shall conduct TIE/TRE detailed in section V of the MRP (Attachment E). The TRE will help the Discharger identify the possible source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce toxicity to the required level.

b. Constituent of Emerging Concern (CEC)

The Discharger shall conduct a special study to investigate the CECs in the effluent discharge. Within six months of the effective date of this Order, the Discharger shall submit to the Executive Officer a CECs special study work plan for approval. Upon approval, the Discharger shall implement the work plan.

The Discharger shall follow the requirements of the special study work plan as discussed in the MRP and the Fact Sheet.

c. Annual Special Studies

Because the discharge from the Avalon Wastewater Treatment Facility (Avalon WWTF or Facility) is no more than 1.2 mgd, the City of Avalon is not subject to this requirement.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP)

Within 90 days of the effective date of this Order, the Discharger shall submit a SWPPP or an updated SWPPP that describes site-specific management practices for minimizing runoff from being discharged directly to waters of the state. The SWPPP shall be prepared in accordance with the requirements in the Storm Water Pollution Prevention Requirements (Attachment H). If all storm water is captured and treated onsite and no storm water is discharged or allowed to run offsite from the facility, the Discharger shall provide certification with descriptions of onsite storm water management to the Regional Water Board.

b. Spill Clean-Up Contingency Plan (SCCP)

Since spill or overflow is a common event in the treatment plant service areas, this Order requires the Discharger to review and update, if necessary, the 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.

c. Pollutant Minimization Program (PMP)

Pursuant to the Ocean Plan, this Order specifies requirements for the development and implementation of a PMP.

4. Construction, Operation, and Maintenance Specifications

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

5. Special Provisions for Municipal Facilities

a. Biosolids Requirements

To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 part 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. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.

6. Spill Reporting Requirements

This Order established a reporting protocol for how different types of spills, overflow, or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued the SSO WDR on May 2, 2006. The SSO WDR requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the SSO WDR. The SSO WDR requires agencies to develop sanitary sewer management plans (SSMPs) and report all SSOs, among other requirements and prohibitions.

Furthermore, the SSO WDR contains requirements for operation and maintenance of collection systems and for reporting and mitigating SSOs. The Discharger must comply with both the SSO WDR and this Order.

VIII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as a NPDES permit for the Avalon WWTF. As a step in the WDR adoption process, the Regional Water Board staff developed tentative WDRs. The Regional Water Board 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 them with an opportunity to submit their written comments and recommendations. Notification must be provided through the local newspaper.

The Regional Board's web address is <http://www.waterboards.ca.gov/losangeles/>. The public was provided access to the agenda including any changes in dates and locations.

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 above on the cover page of this Order, or by email submitted to losangeles@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, written comments were due at the Regional Water Board offices by 12:00 p.m. (noon) on **October 7, 2013**.

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: December 5, 2013
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California, Board Room
700 North Alameda Street
Los Angeles, California

Interested persons were invited to attend and make oral comments. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge and tentative WDRs. For accuracy of the record, important testimony was requested to be in writing.

D. WDRs Petitions

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

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

E. Information and Copying

The tentative WDRs, ROWD, comments received, responses to comments, and other information 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 Talitha Crain at (213) 576-6793 and Brandi Outwin-Beals at (213) 576-6664.

G.

ATTACHMENT G – GENERIC TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

OPERATIONS AND PERFORMANCE REVIEW

- A. NPDES permit requirements
 - 1. Effluent limitations
 - 2. Special conditions
 - 3. Monitoring data and compliance history
- B. POTW design criteria
 - 1. Hydraulic loading capacities
 - 2. Pollutant loading capacities
 - 3. Biodegradation kinetics calculations/assumptions
- C. Influent and effluent conventional pollutant data
 - 1. Biochemical oxygen demand (BOD₅)
 - 2. Chemical oxygen demand (COD)
 - 3. Suspended solids (SS)
 - 4. Ammonia
 - 5. Residual chlorine
 - 6. pH
- D. Process control data
 - 1. Primary sedimentation – hydraulic loading capacity and BOD and SS removal
 - 2. Activated sludge – Food-to-microorganism (F/M) ratio, mean cell, residence time (MCRT), mixed liquor suspended solids (MLSS), sludge yield, and BOD and COD removal
 - 3. Secondary clarification – hydraulic and solids loading capacity, sludge volume index and sludge blanket depth
- E. Operations information
 - 1. Operations logs
 - 2. Standard operating procedures
 - 3. Operations and maintenance practices
- F. Process sidestream characterization data
 - 1. Sludge processing sidestreams
 - 2. Tertiary filter backwash
 - 3. Cooling water
- G. Combined sewer overflow (CSO) bypass data
 - 1. Frequency
 - 2. Volume

H. Chemical coagulant usage for wastewater treatment and sludge processing

5. Polymer
6. Ferric chloride
7. Alum

POTW INFLUENT AND EFFLUENT CHARACTERIZATION DATA

- A. Toxicity
- B. Priority pollutants
- C. Hazardous pollutants
- D. SARA 313 pollutants
- E. Other chemical-specific monitoring results

SEWAGE RESIDUALS (RAW, DIGESTED, THICKENED AND DEWATERED SLUDGE AND INCINERATOR ASH) CHARACTERIZATION DATA

- A. EP toxicity
- B. Toxicity Characteristic Leaching Procedure (TCLP)
- C. Chemical analysis

INDUSTRIAL WASTE SURVEY (IWS)

- A. Information on IUs with categorical standards or local limits and other significant non-categorical IUs
- B. Number of IUs
- C. Discharge flow
- D. Standard Industrial Classification (SIC) code
- E. Wastewater flow
 1. Types and concentrations of pollutants in the discharge
 2. Products manufactured
- F. Description of pretreatment facilities and operating practices
- G. Annual pretreatment report
- H. Schematic of sewer collection system
- I. POTW monitoring data
 1. Discharge characterization data
 2. Spill prevention and control procedures
 3. Hazardous waste generation
- J. IU self-monitoring data
 1. Description of operations
 2. Flow measurements
 3. Discharge characterization data
 4. Notice of sludge loading

- 5. Compliance schedule (if out of compliance)
- K. Technically based local limits compliance reports
- L. Waste hauler monitoring data manifests
- M. Evidence of POTW treatment interferences (i.e., biological process inhibition)

H. ATTACHMENT H – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS¹

1. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.

b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

2. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives. Facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

3. Planning and Organization

a. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in section B of this General Permit. The SWPPP shall clearly identify the General Permit related

¹ From State Water Board's Water Quality Order No. 97-03-DWQ (NPDES General Permit No. CAS000001), Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

b. **Review Other Requirements and Existing Facility Plans**

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

4. **Site Map**

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL
STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION

Form Pollution Prevention Team
Review other plans

ASSESSMENT PHASE

Develop a site map
Identify potential pollutant sources
Inventory of materials and chemicals
List significant spills and leaks
Identify non-storm water discharges
Assess pollutant Risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

Non-structural BMPs
Structural BMPs
Select activity and site-specific BMPs

IMPLEMENTATION PHASE

Train employees
Implement BMPs
Conduct recordkeeping and reporting

EVALUATION / MONITORING

Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

- a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, onsite surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in section A.6.a.iv. below have occurred.
- e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. Description of Potential Pollutant Sources

a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

i. Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 CFR parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this General Permit.

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D. are prohibited by this General Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D. are authorized by this General Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

vi. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

- b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with section A.8. below.

7. Assessment of Potential Pollutant Sources

- a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:
- i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

- ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized nonstorm water discharges; history of spill or leaks; and run-on from outside sources.
- b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section 8 below.

8. Storm Water Best Management Practices

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

| Table B Example Assessment of Potential Pollution Sources and Corresponding Best Management Practices Summary | | | | |
|--|-----------------|---|------------------|---|
| Area | Activity | Pollutant Source | Pollutant | Best Management Practices |
| Vehicle & Equipment fueling | Fueling | Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area. | fuel oil | Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques. |

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of

all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

a. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. Spill Response

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized nonstorm water discharges.

v. Employee Training

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. Recordkeeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

viii. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

ix. Inspections

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

x. Quality Assurance

This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. Structural BMPs

Where non-structural BMPs as identified in section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. Secondary Containment Structures

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

9. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

- a. A review of all visual observation records, inspection records, and sampling and analysis results.
- b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

- d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual summary report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9. and 10. of section C. of this General Permit.

10. SWPPP General Requirements

- a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.
- c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.
- e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or sections A.1, A.9, A.10.c, and A.10.d of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under section 308(b) of the Clean Water Act.

I.

ATTACHMENT I – BIOSOLIDS/SLUDGE MANAGEMENT

(Note: “Biosolids refers to non-hazardous sewage sludge, as defined at 40 CFR part 503.9. Sewage sludge that is hazardous as defined at 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 at the Avalon Wastewater Treatment Facility (Avalon WWTF) shall be used or disposed of in compliance with applicable portions of Clean Water Act and Safe Drinking Water Act, including: 40 CFR part 503-for biosolids that are land applied, placed in a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR part 258-for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR part 257-for all biosolids use and disposal practices not covered under 40 CFR part 258 or 503.

40 CFR part 503, Subpart B (land application), sets forth requirements for biosolids that are applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR part 503, Subpart C (surface disposal), sets forth requirements for biosolids that are placed on land for the purpose of disposal.

The Discharger is responsible for assuring that all biosolids produced at the Avalon Wastewater Treatment Facility (Avalon WWTF) are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers the biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, applicators, and disposers of the requirements that they must meet under these rules.

- b. Duty to Mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.
- c. No biosolids shall be allowed to enter wetlands or other waters of the United States.
- d. Biosolids treatment, storage, use or disposal shall not contaminate groundwater.
- e. Biosolids treatment, storage, use or disposal shall not create nuisances such as objectionable odors or flies.
- f. The Discharger shall assure that haulers transporting biosolids offsite for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained. Trucks hauling biosolids shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck or wheels. Trucks hauling biosolids out of Los Angeles County shall be tarped. All haulers must have spill clean-up procedures. Trucks hauling biosolids shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.

- g. If biosolids are stored for over two years from the time they are generated by the Discharger or their contractor, the permittee must ensure compliance with all the requirements for surface disposal under 40 CFR part 503 Subpart C, or must submit a written notification to EPA with the information in 503.20 (b), demonstrating the need for longer temporary storage.
- h. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and the highest tidal stage which may occur.
- i. 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.
- j. Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR part 761.
- k. The Discharger shall ensure compliance with the requirements in State Water Board Order No. 2004-10-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, or the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Water Board for sites receiving the Discharger's biosolids, where the Regional Water Board has named the Discharger as a responsible party. The Discharger shall require biosolids management agents/contractors to comply with the abovementioned requirements for those sites where the biosolids management agent/contractor is the named responsible party pursuant to the general order or individual WDRs.
- l. The Discharger shall comply if named as a party, or require its biosolids management agents/contractors to comply if they are the named party, with WDRs issued by Regional Water Boards to which jurisdiction the biosolids are transported and applied, and with the State of Arizona's biosolids rule for biosolids transported to Arizona for treatment and/or use.

II. Inspection and Entry

The Regional Water Board, Arizona Department of Environmental Quality (ADEQ), 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 produced by the Discharger are treated, stored, used, or disposed of, either by the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.
- b. Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order or 40 CFR part 503.

- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

III. Monitoring

- a. Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR part 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 at 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 over that period.

Monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), or as otherwise required under 40 CFR part 503.8(b). All results must be reported on a 100% dry weight basis and records of all analyses must state on each page of the analytical results whether the reported results are expressed on an "as-is" or a "100% dry weight" basis.

- b. The Discharger shall sample biosolids twice per year for the pollutants listed under CWA section 307(a) using best practicable detection limits.

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.

Biosolids to be land applied shall be tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- 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 method 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 under 40 CFR part 503.32.
- b. Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels pathogen reduction levels, or ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to

Further Reduce Pathogens” or one of the “Processes to Significantly Reduce Pathogens”, the Discharger 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 part 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 C (extended to 24 hours when cooled to <4 degrees C 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 C (unless using Method 1682- 6 hours when cooled to <10 degrees C);
 - enteric viruses - 6 hours when cooled to <10 degrees C (extended to 24 hours when cooled to <4 degrees C or 2 weeks when frozen);
 - helminth ova - 6 hours when cooled to <10 degrees C (extended to one month when cooled to <4 degrees C).
- 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 under 40 CFR part 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. Landfill Disposal

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (SW-846, Method 9095) at the frequency specified in Table 1 of 40 CFR part 503.16, or more often if necessary to demonstrate that there are no free liquids.

VII. Notifications

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

- a. Notification of non-compliance

The Discharger shall notify USEPA, the State (for both Discharger and use or disposal site), the local Regional Board, and the Central Valley Regional Board of any non-compliance within 24 hours, if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify USEPA and the State of the non-compliance in writing within 5 working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify USEPA and the State of any non-compliance within these same time-frames.

b. Interstate Notification

If biosolids are shipped to another State or Tribal Land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Tribal Land, and the USEPA Regional Office.

c. Land Application Notification

Prior to using any biosolids from this facility (other than composted biosolids) at a new or previously unreported site, the Discharger shall notify USEPA and the State. This notification shall include a description and topographic map of the proposed site(s), names and addresses of the applicator and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR part 503.13, then the Discharger (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading at that site to date, as required by 40 CFR part 503.12.

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.

VIII. Reporting

The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, State Water Board or other Regional Water Board, with respect to municipal sludge or biosolids. The Discharger shall submit an annual biosolids report to the USEPA Region 9 Biosolids Coordinator and the State by February 19 of each year for the period covering the previous 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 under Monitoring above. Results must be reported on a 100% dry weight basis.
- c. Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR parts 503.17 and 503.27, and certifications.
- d. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, deep well injection, or other use or disposal method not covered above, and tonnage delivered to each.

- e. The following information must be submitted by the Discharger, unless the Discharger requires its biosolids management contractors to report this information directly to the USEPA Region 9 Biosolids Coordinator.
1. For land application sites
 - Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner.
 - Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen.
 - Crops planted, dates of planting and harvesting.
 - For biosolids exceeding 40 CFR part 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date.
 - Certifications of management practices at 40 CFR part 503.14.
 - Certifications of site restrictions at 40 CFR part 503(b)(5).
 2. For surface disposal sites
 - Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed.
 - Results of any required groundwater monitoring.
 - Certifications of management practices at 40 CFR part 503.24.
 3. For closed sites, the date of site closure and certifications of management practices for three years following site closure.

- f. All Reports shall be submitted to:

Regional Biosolids Coordinator
U.S. Environmental Protection Agency
CWA Compliance Office (WTR-7)
75 Hawthorne Street
San Francisco, CA 94105-3901

Biosolids Program Coordinator
Arizona Department of Environmental Quality
Mail Code: 5415B-1
1110 West Washington Street
Phoenix, AZ 85007

J.

ATTACHMENT J – REASONABLE POTENTIAL ANALYSIS

ATTACHMENT J – TENTATIVE DRAFT

REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | Antimony, µg/L #1 | Arsenic, µg/L #2 | Be, µg/L #3 | Cadmium, µg/L #4 | Cr (III), µg/L # 5a | Cr (VI), µg/L # 5b | Cu, µg/L #6 | Lead, µg/L #7 | Hg, µg/L #8 | Nickel, µg/L #9 | Se, µg/L #10 | Silver, µg/L #11 | Thallium, µg/L #12 | Zinc, µg/L #13 | Cyanide, µg/L #14 |
|--|-------------------|------------------|-------------|------------------|---------------------|--------------------|-------------|---------------|-------------|-----------------|--------------|------------------|--------------------|----------------|-------------------|
| LEC, µg/L | ND<0.7 | ND<0.7 | ND<0.01 | ND<0.4 | ND<0.5 | ND<0.04 | ND<10 | ND<3 | ND<0.03 | 1.4 | ND<0.61 | ND<0.2 | ND<0.07 | 46 | ND<20 |
| MEC, µg/L | 0.31 | 1.7 | ND<0.3 | 0.075 | 1.3 | ND<0.04 | 22 | 1.2 | ND<5 | 2.1 | 7.8 | 0.12 | ND<1 | 66 | ND<20 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 3.0 | 0 | 0 | 0 | 0 | 2.0 | 0 | 0.0005 | 0 | 0 | 0.16 | 0 | 8.0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 1,200 | 8.0 | 0.033 | 1.0 | 190,000 | 2.0 | 3.0 | 2.0 | 0.04 | 5.0 | 15 | 0.7 | 2.0 | 20 | 1.0 |
| Other factors (303d list, BPJ) | N/A | N/A | BPJ | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | BPJ |
| Reasonable Potential | N | N | I | N | N | I | N | N | Y | N | N | N | I | N | I |

LEC= Lowest Effluent concentration; **MEC**= Maximum effluent concentration (based on the last 5 years of data).

BPJ = Best professional judgment – (1) Chlorination occurs during operations and therefore chlorine related parameters are assigned effluent limitations; (2) Effluent limitations were assigned in the previous permit, and to meet antibacksliding requirement, effluent limitation is assigned if an endpoint 3 was the result of the statistical analyses. These parameters are assigned effluent limitations.

N/A = Not applicable.

Reasonable Potential: (Y) Either BPJ or the RPCalc statistical results of the reported laboratory data show a reasonable potential to exceed Ocean Plan (2012) water quality objectives. These parameters are assigned effluent limitations.

Reasonable Potential: (I) There is inadequate effluent data and/or the RPCalc statistical results are inconclusive. These parameters are assigned performance goals.

Reasonable Potential: (N) The RPCalc statistical results of the reported laboratory data do not show a reasonable potential to exceed Ocean Plan (2012) water quality objectives. These parameters are assigned performance goals.

Additional details are provided in the Fact Sheet (Attachment F).

REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | TCDD Equivalents, µg/L # 15 | Acrolein, µg/L # 16 | Acrylonitrile, µg/L # 17 | Benzene, µg/L # 18 | Bromoform, µg/L # 19 | Carbon Tetrachloride, µg/L # 20 | Chlorobenzene (Monochloro-benzene), µg/L # 21 | Chlorodibromo-methane, µg/L # 22 | Chloroform, µg/L # 23 | Dichlorobromo-methane, µg/L # 24 |
|--|-----------------------------|---------------------|--------------------------|--------------------|----------------------|---------------------------------|---|----------------------------------|-----------------------|----------------------------------|
| LEC, µg/L | 2.16 x 10 ⁻⁸ | ND<1.7 | ND<0.69 | ND<0.18 | ND<0.5 | ND<0.16 | ND<0.18 | ND<0.16 | ND<0.19 | ND<0.17 |
| MEC, µg/L | 1.66 x 10 ⁻⁷ | ND<10 | ND<0.7 | ND<0.2 | 0.46 | ND<0.3 | ND<0.3 | ND<0.4 | ND<0.3 | ND<0.3 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 3.9 x 10 ⁻⁹ | 220 | 0.10 | 5.9 | 130 | 0.90 | 570 | 8.6 | 130 | 6.2 |
| Other factors (303d list, BPJ) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Reasonable Potential | Y | I | I | I | I | I | I | N | N | N |

| Constituent, Unit | 1,2-Dichloro-ethane, µg/L # 25 | 1,1-Dichloro-ethylene, µg/L # 26 | 1,3-Dichloro-propene, µg/L # 27 | Ethylbenzene, µg/L # 28 | Methyl Bromide (Bromomethane), µg/L # 29 | Methyl Chloride (Chloromethane), µg/L # 30 | Methylene Chloride (dichloromethane), µg/L # 31 | 1,1,2,2-Tetra-chloroethane, µg/L # 32 | Tetrachloro-ethylene, µg/L # 33 |
|--|--------------------------------|----------------------------------|---------------------------------|-------------------------|--|--|---|---------------------------------------|---------------------------------|
| LEC, µg/L | ND<0.18 | ND<0.21 | ND<0.16 | ND<0.2 | ND<0.17 | ND<0.23 | ND<0.2 | ND<0.1 | ND<0.19 |
| MEC, µg/L | ND<0.3 | ND<0.3 | ND<0.3 | ND<0.26 | ND<1 | ND<0.5 | ND<0.8 | ND<0.6 | ND<0.2 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 28 | 0.9 | 8.9 | 4,100 | 130 | 130 | 450 | 2.3 | 2.0 |
| Other factors (303d list, BPJ) | N/A | N/A | BPJ | N/A | N/A | N/A | N/A | N/A | N/A |
| Reasonable Potential | I | I | I | I | I | I | I | I | I |

LEC= Lowest Effluent concentration; **MEC**= Maximum effluent concentration (based on the last 5 years of data).

BPJ = Best professional judgment – (1) Chlorination occurs during operations and therefore chlorine related parameters are assigned effluent limitations; (2) Effluent limitations were assigned in the previous permit, and to meet antibacksliding requirement, effluent limitation is assigned if an endpoint 3 was the result of the statistical analyses.. These parameters are assigned effluent limitations.

N/A = Not applicable.

Reasonable Potential: (Y) Either BPJ or the RPCalc statistical results of the reported laboratory data show a reasonable potential to exceed Ocean Plan (2012) water quality objectives. These parameters are assigned effluent limitations.

Reasonable Potential: (I) There is inadequate effluent data and/or the RPCalc statistical results are inconclusive. These parameters are assigned performance goals.

Reasonable Potential: (N) The RPCalc statistical results of the reported laboratory data do not show a reasonable potential to exceed Ocean Plan (2012) water quality objectives. These parameters are assigned performance goals.

Additional details are provided in the Fact Sheet (Attachment F).

REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | Toluene, µg/L # 34 | 1,1,1-Trichloroethane, µg/L # 35 | 1,1,2-Trichloroethane, µg/L # 36 | Trichloro-ethylene, µg/L # 37 | Vinyl Chloride, µg/L # 38 | 2-Chloro-phenol (chlorinated phenolic), µg/L # 39 | 2, 4 Dichlorophenol (chlorinated phenolic), µg/L # 40 | 2,4-Dimethyl – phenol, µg/L # 41 | 2-Methyl 4,6-Di-nitrophenol, µg/L # 42 | 2,4-Dinitrophenol, µg/L # 43 |
|--|--------------------|----------------------------------|----------------------------------|-------------------------------|---------------------------|---|---|----------------------------------|--|------------------------------|
| LEC, µg/L | ND<0.19 | ND<0.19 | ND<0.16 | ND<0.2 | ND<0.25 | ND<0.8 | ND<0.7 | ND<0.8 | ND<0.6 | ND<0.6 |
| MEC, µg/L | ND<0.2 | ND<0.2 | ND<0.4 | ND<0.3 | ND<0.3 | ND<0.98 | ND<0.99 | ND<0.87 | ND<5 | ND<0.83 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 85,000 | 540,000 | 9.4 | 27 | 36 | 1.0 | 1.0 | 30 | 30 | 30 |
| Other factors (303d list, BPJ) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Reasonable Potential | I | I | I | I | I | I | I | I | I | I |

| Constituent, Unit | 2-Nitrophenol, µg/L # 44 | 4-Nitro-phenol, µg/L # 45 | 4-chloro-3-methyl phenol (chlorinated phenolic), µg/L # 46 | Pentachloro-phenol (chlorinated phenolic), µg/L # 47 | Phenol (non-chlorinated phenolic), µg/L # 48 | 2, 4, 6 Trichloro-phenol (chlorinated phenolic), µg/L # 49 | Acenaphthylene (PAH), µg/L # 50 | Anthracene (PAH), µg/L # 51 | Benzidine, µg/L # 52 | Benzo(a) anthracene (PAH), µg/L # 53 |
|--|--------------------------|---------------------------|--|--|--|--|---------------------------------|-----------------------------|------------------------|--------------------------------------|
| LEC, µg/L | ND<0.6 | ND<0.7 | ND<0.6 | ND<0.6 | ND<0.6 | ND<0.6 | ND<0.02 | ND<0.02 | ND<5 | ND<0.02 |
| MEC, µg/L | ND<0.89 | ND<0.83 | ND<0.91 | ND<0.81 | ND<0.69 | ND<0.97 | ND<0.03 | ND<0.03 | ND<5 | ND<0.03 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 30 | 30 | 1.0 | 1.0 | 30 | 0.29 | 0.0088 | 0.0088 | 6.9 x 10 ⁻⁵ | 0.0088 |
| Other factors (303d list, BPJ) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | BPJ | N/A |
| Reasonable Potential | I | I | I | I | I | I | I | I | Y | I |

LEC= Lowest Effluent concentration; **MEC**= Maximum effluent concentration (based on the last 5 years of data).

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REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | Benzo(a) Pyrene (PAH), µg/L # 54 | Benzo(b) fluoranthene (PAH), µg/L # 55 | Benzo(ghi) perylene (PAH), µg/L # 56 | Benzo(k) fluoranthene (PAH), µg/L # 57 | Bis (2-Chloro- ethoxy) Methane, µg/L # 58 | Bis (2-Chloroethyl) Ether, µg/L # 59 | Bis (2-Chloroiso-propyl) Ether, µg/L # 60 | Bis (2-Ethylhexyl) Phthalate, µg/L # 61 |
|--|----------------------------------|--|--------------------------------------|--|---|--------------------------------------|---|---|
| LEC, µg/L | ND<0.02 | ND<0.02 | ND<0.02 | ND<0.03 | ND<0.7 | ND<0.9 | ND<0.6 | ND<0.95 |
| MEC, µg/L | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<1.7 | ND<0.95 | ND<0.81 | 62 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 0.0088 | 0.0088 | 0.0088 | 0.0088 | 4.4 | 0.045 | 1,200 | 3.5 |
| Other factors (303d list, BPJ) | N/A | N/A | N/A | N/A | N/A | BPJ | N/A | N/A |
| Reasonable Potential | I | I | I | I | I | I | I | Y |

| Constituent, Unit | Chrysene (PAH), µg/L # 62 | Dibenzo (ah) anthracene (PAH), µg/L # 63 | 1,2 Dichloro-benzene, µg/L # 64 | 1, 3 Dichloro- benzene, µg/L # 65 | 1, 4 Dichloro-benzene, µg/L # 66 | 3,3-Dichloro- benzidine, µg/L # 67 | Diethyl Phthalate, µg/L # 68 | Dimethyl Phthalate, µg/L # 69 | Di-n-Butyl Phthalate, µg/L # 70 |
|--|---------------------------|--|---------------------------------|-----------------------------------|----------------------------------|------------------------------------|------------------------------|-------------------------------|---------------------------------|
| LEC, µg/L | ND<0.02 | ND<0.02 | ND<0.27 | ND<0.18 | ND<0.18 | ND<0.2 | ND<0.6 | ND<0.7 | ND<0.6 |
| MEC, µg/L | ND<0.03 | ND<0.03 | ND<0.95 | ND<0.87 | ND<0.93 | ND<5 | ND<0.86 | ND<0.97 | ND<0.91 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 0.0088 | 0.0088 | 5,100 | 5,100 | 18 | 0.0081 | 33,000 | 820,000 | 3,500 |
| Other factors (303d li, BPJ) | N/A | N/A | N/A | N/A | N/A | BPJ | N/A | N/A | N/A |
| Reasonable Potential | I | I | I | I | I | Y | I | I | I |

LEC= Lowest Effluent concentration; **MEC**= Maximum effluent concentration (based on the last 5 years of data).

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REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | 2,4-Dinitro-toluene, µg/L # 71 | 1,2-Diphenyl – hydrazine, µg/L # 72 | Fluoranthene, µg/L # 73 | Fluorene (PAH), µg/L # 74 | Hexachloro- benzene, µg/L # 75 | Hexachloro – butadiene, µg/L # 76 | Hexachloro – cyclopentadiene, µg/L # 77 | Hexachloro– ethane, µg/L # 78 | Indeno (1,2,3-cd) pyrene (PAH), µg/L # 79 |
|--|--------------------------------|-------------------------------------|-------------------------|---------------------------|--------------------------------|-----------------------------------|---|-------------------------------|---|
| LEC, µg/L | ND<0.6 | ND<0.6 | ND<0.02 | ND<0.02 | ND<0.91 | ND<0.92 | ND<0.8 | ND<0.9 | ND<0.02 |
| MEC, µg/L | ND<0.96 | ND<0.9 | ND<0.03 | ND<0.03 | ND<1 | ND<1 | ND<0.9 | ND<1 | ND<0.03 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30–day avg or 6-month median), µg/L | 2.6 | 0.16 | 15 | 0.0088 | 0.00021 | 14 | 58 | 2.5 | 0.0088 |
| Other factors (303d list...) | N/A | N/A | N/A | N/A | BPJ | N/A | N/A | N/A | N/A |
| Reasonable Potential | I | I | I | I | Y | I | I | I | I |

| Constituent, Unit | Isophorone, µg/L # 80 | Nitrobenzene, µg/L # 81 | N-Nitrosodimethyl-amine, µg/L # 82 | Total Chlorine Residual, µg/L # 83 | N-Nitrosodiphenyl-amine, µg/L # 84 | Phenanthrene (PAH), µg/L # 85 | Pyrene (PAH), µg/L # 86 | Aldrin, µg/L # 87 |
|--|-----------------------|-------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------|-------------------------|-------------------|
| LEC, µg/L | ND<0.8 | ND<0.7 | ND<0.8 | ND<100 | ND<0.6 | ND<0.02 | ND<0.02 | ND<0.003 |
| MEC, µg/L | ND<0.93 | ND<0.95 | ND<0.88 | 102 | ND<0.83 | ND<0.03 | ND<0.03 | ND<0.004 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30–day avg or 6-month median), µg/L | 730 | 4.9 | 7.3 | 2.0 | 2.5 | 0.0088 | 0.0088 | 0.000022 |
| Other factors (303d list, BPJ) | N/A | N/A | N/A | BPJ | N/A | N/A | N/A | BPJ |
| Reasonable Potential | I | I | I | Y | I | I | I | Y |

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REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | α-BHC (HCH), µg/L # 88 | β-BHC (HCH), µg/L # 89 | γ-BHC (Lindane) (HCH), µg/L # 90 | δ-BHC (HCH), µg/L # 91 | Chlordane, µg/L # 92 | 4,4' DDT, µg/L (DDT) # 93 | 4, 4'-DDE, µg/L (DDT) # 94 | 4,4'-DDD, µg/L (DDT) # 95 | Dieldrin, µg/L # 96 | alpha-Endo-sulfan, µg/L # 97 |
|--|------------------------|------------------------|----------------------------------|------------------------|------------------------|---------------------------|----------------------------|---------------------------|---------------------|------------------------------|
| LEC, µg/L | ND<0.002 | ND<0.002 | ND<0.002 | ND<0.002 | ND<0.005 | ND<0.003 | ND<0.003 | ND<0.003 | ND<0.003 | ND<0.003 |
| MEC, µg/L | ND<0.005 | ND<0.004 | ND<0.004 | ND<0.004 | ND<0.04 | ND<0.004 | ND<0.0004 | ND<0.004 | ND<0.004 | ND<0.005 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 0.004 | 0.004 | 0.004 | 0.004 | 2.3 x 10 ⁻⁵ | 0.00017 | 0.00017 | 0.00017 | 0.00004 | 0.009 |
| Other factors (303d list, BPJ) | BPJ | BPJ | BPJ | BPJ | BPJ | BPJ | BPJ | BPJ | BPJ | N/A |
| Reasonable Potential | I | I | I | I | Y | I | I | I | Y | I |

| Constituent, Unit | beta-Endo-sulfan, µg/L # 98 | Endosulfan Sulfate, µg/L # 99 | Endrin, µg/L # 100 | Heptachlor, µg/L # 101 | Heptachlor Epoxide, µg/L # 102 | PCBs, µg/L # 103-109 | Toxaphene, µg/L # 110 | Tributyltin, µg/L # 111 | Ammonia as N, µg/L # 112 | n-Nitrosodi-n-propylamine µg/L # 113 |
|--|-----------------------------|-------------------------------|--------------------|------------------------|--------------------------------|------------------------|-----------------------|-------------------------|--------------------------|--------------------------------------|
| LEC, µg/L | ND<0.003 | ND<0.003 | ND<0.003 | ND<0.003 | ND<0.003 | ND<0.04 | ND<0.2 | ND<0.04 | ND<010 | ND<0.6 |
| MEC, µg/L | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.0004 | ND<0.06 | ND<0.5 | ND<0.04 | 13700 | ND<0.97 |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 0.009 | 0.009 | 0.002 | 5. x 10 ⁻⁵ | 2 x 10 ⁻⁵ | 1.9 x 10 ⁻⁵ | 0.00021 | 0.0014 | 600 | 0.38 |
| Other factors (303d list, BPJ) | N/A | N/A | BPJ | BPJ | BPJ | BPJ | BPJ | BPJ | N/A | N/A |
| Reasonable Potential | I | I | I | Y | Y | Y | Y | I | N | I |

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REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE 1 (2012) POLLUTANTS

| Constituent, Unit | 2,4' DDT, µg/L (DDT) # 114 | 2,4' DDE, µg/L (DDT) # 115 | 2,4' DDD, µg/L (DDT) # 116 |
|--|----------------------------|----------------------------|----------------------------|
| LEC, µg/L | No Data | No Data | No Data |
| MEC, µg/L | No Data | No Data | No Data |
| Maximum Background, µg/L (Table 3 2012 Ocean Plan) | 0 | 0 | 0 |
| Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable) | N/A | N/A | N/A |
| Ocean Plan Objective (30-day avg or 6-month median), µg/L | 0.00017 | 0.00017 | 0.00017 |
| Other factors (303d list, BPJ) | BPJ | BPJ | BPJ |
| Reasonable Potential | I | I | I |

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