

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

2375 Northside Drive, Suite 100, San Diego, CA 92108
(619) 516-1990 • Fax (619) 516-1994
<http://www.waterboards.ca.gov/sandiego/>

**ORDER NO. R9-2019-0168
NPDES NO. CA0109193**

**WASTE DISCHARGE REQUIREMENTS FOR GENENTECH, INC.
DISCHARGE TO THE PACIFIC OCEAN THROUGH THE OCEANSIDE OCEAN OUTFALL**

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

Table 1. Discharger Information

Discharger	Genentech, Inc.
Name of Facility	Genentech, Inc.
Facility Address	One Antibody Way Oceanside, CA 92056 San Diego County

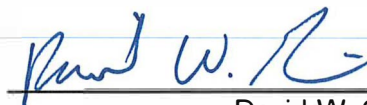
Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Waste brine	33° 09' 46" N	117° 23' 28" W	Pacific Ocean

Table 3. Administrative Information

This Order was adopted on:	February 12, 2020
This Order shall become effective on:	April 1, 2020
This Order shall expire on:	March 31, 2025
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations (CCR), and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, San Diego Region have classified this discharge as follows:	Minor

I, David W. Gibson, 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, San Diego Region, on the date indicated above.



David W. Gibson, Executive Officer

CONTENTS

I. Facility Information 3

II. Findings 3

III. Discharge Prohibitions 4

IV. Effluent Limitations and Discharge Specifications 4

 A. Effluent Limitations and Performance Goals 4

 1. Effluent Limitations 4

 2. Performance Goals 5

 B. Land Discharge Specifications – Not Applicable 8

 C. Recycling Specifications – Not Applicable 8

V. Receiving Water Limitations 8

 A. Surface Water Limitation 8

 B. Groundwater Limitations – Not Applicable 9

VI. Provisions 9

 A. Standard Provisions 9

 B. Monitoring and Reporting Program (MRP) Requirements 10

 C. Special Provisions 10

 1. Reopener Provisions 10

 2. Special Studies, Technical Reports and Additional Monitoring Requirements – Not Applicable 11

 3. Best Management Practices and Pollution Prevention – Not Applicable 11

 4. Construction, Operation and Maintenance Specifications 11

 5. Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable 12

 6. Other Special Provisions – Not Applicable 12

 7. Compliance Schedules – Not Applicable 12

VII. Compliance Determination 12

TABLES

Table 1. Discharger Information 1

Table 2. Discharge Location 1

Table 3. Administrative Information 1

Table 4. Effluent Limitations at Monitoring Location EFF-001¹ 4

Table 5. Performance Goals at Monitoring Location EFF-001¹ 5

ATTACHMENTS

Attachment A – Abbreviations and Definitions A-1

Attachment B – Map B-1

Attachment C – Flow Schematic C-1

Attachment D – Standard Provisions D-1

Attachment E – Monitoring and Reporting Program E-1

Attachment F – Fact Sheet F-1

Attachment G – Discharge Prohibitions contained in the Ocean Plan and Basin Plan G-1

I. FACILITY INFORMATION

Information describing the Genentech, Inc. facility (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Genentech, Inc. (Discharger) permit application.

II. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), finds:

- A. Legal Authorities.** This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (Water Code) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). This Order shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.
- B. Background and Rationale for Requirements.** The San Diego 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 are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- D. Executive Officer Delegation of Authority.** The San Diego Water Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order, unless such delegation is unlawful under Water Code section 13223 or this Order explicitly states otherwise.
- E. Notification of Interested Parties.** The San Diego 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. The San Diego Water Board has also provided an opportunity for the Discharger and interested agencies and persons to submit oral comments and recommendations at a public hearing. Details of the notification are provided in the Fact Sheet (Attachment F).
- F. Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-2014-0004 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. The Discharger is hereby authorized to discharge subject to WDRs in this Order at the discharge location described in Table 2 to the Pacific Ocean off the coast of San Diego County. This action in no way prevents the San Diego Water Board from taking enforcement action for past violations of Order No. R9-2014-0004.

III. DISCHARGE PROHIBITIONS

- A. The discharge of waste from the Facility not in compliance with the effluent limitations specified in section IV.A of this Order, and/or to a location other than Discharge Point No. 001, unless specifically regulated by this Order or separate WDRs, is prohibited.
- B. The Discharger must comply with any applicable Discharge Prohibitions contained in the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan)*, incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.
- C. The Discharger must comply with any applicable Discharge Prohibitions contained in chapter 4 of the *Water Quality Control Plan for the San Diego Basin (Basin Plan)*, incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations and Performance Goals

1. Effluent Limitations

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

Table 4. Effluent Limitations at Monitoring Location EFF-001¹

Parameter	Units	Effluent Limitations ^{2,3}					
		Six-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	million gallons per day (MGD)	--	--	--	0.155	--	--
Total Suspended Solids (TSS)	milligram per liter (mg/L)	--	60	--	--	--	--
	pounds per day (lbs/day)	--	78	--	--	--	--
pH	standard units	--	--	--	--	6.0	9.0
Oil and Grease	mg/L	--	25	40	--	--	75
	lbs/day	--	32	52	--	--	97
Settleable Solids	milliliter per liter (ml/L)	--	1.0	1.5	--	--	3.0
Turbidity	nephelometric turbidity unit (NTU)	--	75	100	--	--	225

Parameter	Units	Effluent Limitations ^{2,3}					
		Six-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Effluent Limitations Based on Objectives for Protection of Marine Aquatic Life							
Total Chlorine Residual	microgram per liter (µg/L)	1.76E+02	--	--	7.04E+02	--	5.28E+03
	lbs/day	2.3E-01	--	--	9.1E-01	--	6.83E+00
Ammonia (expressed as nitrogen)	µg/L	5.28E+04	--	--	2.11E+05	--	5.28E+05
	lbs/day	6.83E+01	--	--	2.73E+02	--	6.83E+02

- ¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.
- ² The mass emission rate (MER) limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the Facility (0.155 MGD) and C is the concentration (mg/L).
- ³ Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1 x 10⁻² or 0.061, 6.1E+02 represents 6.1 x 10² or 610, and 6.1E+00 represents 6.1 x 10⁰ or 6.1.

2. Performance Goals

Parameters that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives, or for which reasonable potential to cause or contribute to an exceedance of water quality objectives cannot be determined, are referred to as performance goal parameters and are assigned the performance goals listed in Table 5 below. Performance goal parameters shall be monitored at Monitoring Location EFF-001, as described in the MRP (Attachment E). The San Diego Water Board will use the results for informational purposes only, not compliance determinations. The performance goals in Table 5 are not water quality-based effluent limitations (WQBELs) and are not enforceable, as such.

Table 5. Performance Goals at Monitoring Location EFF-001¹

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Performance Goals Based on Objectives for Protection of Marine Aquatic Life					
Arsenic, Total Recoverable	microgram per liter (µg/L)	4.4E+02	--	2.6E+03	6.8E+03
Cadmium, Total Recoverable	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Chromium (VI), Total Recoverable ³	µg/L	1.8E+02	--	7.0E+02	1.8E+03
Copper, Total Recoverable	µg/L	9.0E+01	--	8.8E+02	2.5E+03
Lead, Total Recoverable	µg/L	1.8E+02	--	7.0E+02	1.8E+03
Mercury, Total Recoverable	µg/L	3.5E+00	--	1.4E+01	3.5E+01
Nickel, Total Recoverable	µg/L	4.4E+02	--	1.8E+03	4.4E+03
Selenium, Total Recoverable	µg/L	1.3E+03	--	5.3E+03	1.3E+04
Silver, Total Recoverable	µg/L	4.8E+01	--	2.3E+02	6.0E+02
Zinc, Total Recoverable	µg/L	1.1E+03	--	6.3E+03	1.7E+04
Cyanide, Total	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Chronic Toxicity ^{4,5}	"Pass"/"Fail"	--	--	"Pass"	--

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Phenolic Compounds ¹ (non-chlorinated)	µg/L	2.6E+03	--	1.1E+04	2.6E+04
Chlorinated Phenolics ¹	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Endosulfan ¹	µg/L	7.9E-01	--	1.6E+00	2.4E+00
Endrin	µg/L	1.8E-01	--	3.5E-01	5.3E-01
HCH (BHC) ¹	µg/L	3.5E-01	--	7.0E-01	1.1E+00
Radioactivity (alpha and beta particles)	picocuries per liter (pCi/L)	Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR, Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			
Performance Goals Based on Objectives for Protection of Human Health - Noncarcinogens					
Acrolein	µg/L	--	1.9E+04	--	--
Antimony, Total Recoverable	µg/L	--	1.1E+05	--	--
Bis(2-chloroethoxy) Methane	µg/L	--	3.9E+02	--	--
Bis(2-chloroisopropyl) Ether	µg/L	--	1.1E+05	--	--
Chlorobenzene	µg/L	--	5.0E+04	--	--
Chromium (III), Total Recoverable ³	µg/L	--	1.7E+07	--	--
Di-n-butyl Phthalate	µg/L	--	3.1E+05	--	--
Dichlorobenzenes ¹	µg/L	--	4.5E+05	--	--
Diethyl Phthalate	µg/L	--	2.9E+06	--	--
Dimethyl Phthalate	µg/L	--	7.2E+07	--	--
4,6-dinitro-2-methylphenol	µg/L	--	1.9E+04	--	--
2,4-dinitrophenol	µg/L	--	3.5E+02	--	--
Ethylbenzene	µg/L	--	3.6E+05	--	--
Fluoranthene	µg/L	--	1.3E+03	--	--
Hexachlorocyclopentadiene	µg/L	--	5.1E+03	--	--
Nitrobenzene	µg/L	--	4.3E+02	--	--
Thallium, Total Recoverable	µg/L	--	1.8E+02	--	--
Toluene	µg/L	--	7.5E+06	--	--
Tributyltin	µg/L	--	1.2E-01	--	--
1,1,1-Trichloroethane	µg/L	--	4.8E+07	--	--
Performance Goals Based on Objectives for Protection of Human Health - Carcinogens					
Acrylonitrile	µg/L	--	8.8E+00	--	--
Aldrin	µg/L	--	1.9E-03	--	--
Benzene	µg/L	--	5.2E+02	--	--
Benzidine	µg/L	--	6.1E-03	--	--
Beryllium, Total Recoverable	µg/L	--	2.9E+00	--	--
Bis(2-chloroethyl) Ether	µg/L	--	4.0E+00	--	--
Bis(2-ethylhexyl) Phthalate	µg/L	--	3.1E+02	--	--
Carbon Tetrachloride	µg/L	--	7.9E+01	--	--
Chlordane ¹	µg/L	--	2.0E-03	--	--
Chlorodibromomethane	µg/L	--	7.6E+02	--	--
Chloroform	µg/L	--	1.1E+04	--	--

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Dichlorodiphenyltrichloroethane (DDT) ¹	µg/L	--	1.5E-02	--	--
1,4-dichlorobenzene	µg/L	--	1.6E+03	--	--
3-3'-dichlorobenzidine	µg/L	--	7.1E-01	--	--
1,2-dichloroethane	µg/L	--	2.5E+03	--	--
1,1-dichloroethylene	µg/L	--	7.9E+01	--	--
Dichlorobromomethane	µg/L	--	5.5E+02	--	--
Dichloromethane (Methylene Chloride)	µg/L	--	4.0E+04	--	--
1,3-dichloropropene (1,3-Dichloropropylenes)	µg/L	--	7.8E+02	--	--
Dieldrin	µg/L	--	3.5E-03	--	--
2,4-dinitrotoluene	µg/L	--	2.3E+02	--	--
1,2-diphenylhydrazine	µg/L	--	1.4E+01	--	--
Halomethanes ¹	µg/L	--	1.1E+04	--	--
Heptachlor	µg/L	--	4.4E-03	--	--
Heptachlor Epoxide	µg/L	--	1.8E-03	--	--
Hexachlorobenzene	µg/L	--	1.8E-02	--	--
Hexachlorobutadine	µg/L	--	1.2E+03	--	--
Hexachloroethane	µg/L	--	2.2E+02	--	--
Isophorone	µg/L	--	6.4E+04	--	--
N-nitrosodimethylamine	µg/L	--	6.4E+02	--	--
N-nitrosodi-n-propylamine	µg/L	--	3.3E+01	--	--
N-nitrosodiphenylamine	µg/L	--	2.2E+02	--	--
Polynuclear Aromatic Hydrocarbons (PAHs) ¹	µg/L	--	7.7E-01	--	--
Polychlorinated Biphenyls (PCBs) ¹	µg/L	--	1.7E-03	--	--
TCDD Equivalents ¹	µg/L	--	3.4E-07	--	--
1,1,1,2-tetrachloroethane	µg/L	--	2.0E+02	--	--
Tetrachloroethylene (Tetrachloroethene)	µg/L	--	1.8E+02	--	--
Toxaphene	µg/L	--	1.8E-02	--	--
Trichloroethylene (Trichloroethene)	µg/L	--	2.4E+03	--	--
1,1,2-trichloroethane	µg/L	--	8.3E+02	--	--
2,4,6-trichlorophenol	µg/L	--	2.6E+01	--	--
Vinyl Chloride	µg/L	--	3.2E+03	--	--

¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

² Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1 x 10⁻² or 0.061, 6.1E+02 represents 6.1 x 10² or 610, and 6.1E+00 represents 6.1 x 10⁰ or 6.1.

³ Dischargers may, at their option, apply this performance goal as a total chromium performance goal.

⁴ As specified in section VII.J of this Order and section III.C of the MRP (Attachment E).

⁵ The chronic toxicity performance goal is protective of both the numeric acute and chronic toxicity Ocean Plan water quality objectives. The performance goal will be implemented using *Short-term Methods for Estimating the Chronic Toxicity of*

Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995); current USEPA guidance in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf); and USEPA Regions 8, 9, and 10, *Toxicity Training Tool* (January 2010).

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

The receiving water limitations set forth below for ocean waters are based on water quality objectives contained in the Basin Plan and Ocean Plan and are a required part of this Order. The discharge of waste shall not cause or contribute to violation of these limitations in the Pacific Ocean. Compliance with these limitations shall be determined from samples collected at stations representative of the area outside of the zone of initial dilution (ZID).

1. Bacterial Characteristics

- a. Within a zone bounded by the shoreline and a distance of three nautical miles from the shoreline, including all kelp beds, the following bacterial objectives shall be maintained throughout the water column. The ZID for the ocean outfall is excluded.
 - i. Fecal Coliform
 - (a) Thirty-day geometric mean of fecal coliform density not to exceed 200 CFU per 100 milliliters (mL) calculated based on the five most recent samples from each site.
 - (b) Single sample maximum not to exceed 400 CFU per 100 mL.
 - ii. Enterococci
 - (a) Six-week rolling geometric mean not to exceed 30 CFU per 100 mL, calculated weekly.
 - (b) Statistical threshold value (STV) of 110 CFU per 100 mL not to be exceeded by more than 10 percent of samples collected in a calendar month, calculated in a static manner.
- b. The ZID of any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.
- c. At all areas where shellfish may be harvested for human consumption, as determined by the San Diego Water Board, the median total coliform density (CFU) shall not exceed 70 per 100 mL throughout the water column, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

2. Physical Characteristics

- a. Floating particulates and grease and oils shall not be visible.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as a result of the discharge of waste.

- d. The rate of deposition of inert solids and the characteristics of inert solids in the ocean sediments shall not be changed such that benthic communities are degraded.
- e. Trash shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

3. Chemical Characteristics

- a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.
- b. The pH shall not be changed at any time more than 0.2 standard units from that which occurs naturally.
- c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- d. The concentration of substances set forth in chapter II, Table 3 of the Ocean Plan, shall not be increased in marine sediments to levels that would degrade indigenous biota.
- e. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.
- f. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

4. Biological Characteristics

- a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
- b. The natural taste, odor, color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **San Diego 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. The expiration date of this Order is contained in Table 3 of this Order. After the expiration date, the terms and conditions of this Order are automatically continued pending issuance of a new permit, provided that all requirements of USEPA's NPDES regulations at title 40 of the Code of Federal Regulations (40 CFR) section 122.6 and the State's regulations at title 23, division 3, chapter 9, article 3, section

2235.4 of the CCR regarding the continuation of expired permits and WDRs are met.

- b. A copy of this Order shall be posted at a prominent location and shall be available to site personnel, San Diego Water Board, State Water Resources Control Board (State Water Board), and USEPA or their authorized representative at all times.

B. Monitoring and Reporting Program (MRP) Requirements

1. The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.
2. Notifications required to be provided under this Order to the San Diego Water Board shall be made to:

E-mail - SanDiego@waterboards.ca.gov or
Telephone – (619) 516-1990, or
Facsimile – (619) 516-1994.

C. Special Provisions

1. Reopener Provisions

- a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a performance goal(s) set forth in section IV.A.2 of this Order or as otherwise described in Table 3 of the Ocean Plan. (40 CFR section 122.44(d)(1))
- b. This Order may be reopened for modification of the monitoring and reporting requirements and/or special studies requirements, at the discretion of the San Diego Water Board. Such modification(s) may include, but is (are) not limited to, revision(s) (i) to implement recommendations from the Southern California Coastal Water Research Project (SCCWRP); (ii) to develop, refine, implement, and/or coordinate a regional monitoring program; (iii) to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of a Regional Monitoring Framework*; and/or (iv) to add provisions to require the Discharger to evaluate and provide information on cost and values of the MRP (Attachment E).
- c. This Order may be modified, revoked and reissued, or terminated for cause in accordance with the provisions of 40 CFR parts 122, 124, and 125 at any time prior to its expiration under any of the following circumstances:
 - i. Violation of any terms or conditions of this Order. (Water Code section 13381(a));
 - ii. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts. (Water Code section 13381(b)); and
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. (Water Code section 13381(c)).
- d. The filing of a request by the Discharger for modifications, revocation and reissuance, or termination of this Order does not stay any condition of this Order. Notification by the Discharger of planned operational or facility changes, or

anticipated noncompliance with this Order does not stay any condition of this Order. (40 CFR section 122.41(f))

- e. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA section 307(a) for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the San Diego Water Board may institute proceedings under these regulations to modify or revoke and reissue this Order to conform to the toxic effluent standard or prohibition. (40 CFR section 122.44(b)(1))
- f. This Order may be reopened and modified for consistency with any new water quality control plan, policy, law, or regulation. (40 CFR section 122.62(a)(3).)
- g. This Order may be reopened and modified to revise effluent limitations as a result of future Ocean Plan, Basin Plan, and/or other statewide Water Quality Control Plan amendments; or the adoption of a total maximum daily load (TMDL) for the receiving water. (40 CFR section 122.62(a)(2))
- h. This Order may be reopened upon submission by the Discharger of new information, the adequacy of which shall be determined by the San Diego Water Board, to provide for dilution credits or a mixing zone, as may be appropriate. (40 CFR section 122.62(a)(2))
- i. This Order may also be reopened and modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, and 125.62. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, and endangerment to human health or the environment resulting from the permitted activity.
- j. The performance goals, contained in section IV.A.2 of this Order, may be re-evaluated and modified during this Order term, or this Order may be modified to incorporate WQBELs, in accordance with the requirements set forth at 40 CFR sections 122.62 and 124.5.

2. Special Studies, Technical Reports and Additional Monitoring Requirements – Not Applicable

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Construction, Operation and Maintenance Specifications

- a. All proposed new treatment facilities and expansions of existing treatment facilities shall be completely constructed and operable prior to initiation of the discharge from the new or expanded facilities. The Discharger shall submit a certification report for each new treatment facility, expansion of an existing treatment facility, and design capacity re-ratings, prepared by the design engineer. For design capacity re-ratings, the certification report shall be prepared by the engineer who evaluated the treatment facility design capacity. The signature and engineering license number of the engineer preparing the certification report shall be affixed to the report. If reasonable, the certification report shall be submitted prior to beginning construction of new treatment facilities or expansions of existing treatment facilities.
 - i. The certification report shall:
 - (a) Identify the design capacity of the treatment facility, including the daily and 30-day design capacity;

- (b) Certify the adequacy of each component of the treatment facility; and
 - (c) Contain a requirement-by-requirement analysis, based on acceptable engineering practices, of the process and physical design of the facility to ensure compliance with this Order.
- ii. The Discharger shall not initiate a discharge from a treatment facility at a daily flow rate in excess of its previously approved design capacity until:
 - (a) The certification report is received by the San Diego Water Board,
 - (b) The San Diego Water Board has received written notification of completion of construction (new or expanded treatment facilities only),
 - (c) An inspection of the facility has been made by the San Diego Water Board or its designated representatives (new or expanded treatment facilities only), and
 - (d) The San Diego Water Board has provided the Discharger with written authorization to initiate discharge from a new or expanded treatment facility or at a daily flow rate in excess of its previously approved design capacity.
 - b. The Facilities shall be protected against a 100-year storm event as defined by the San Diego County Flood Control District (FCD).
 - c. The Facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour storm event as defined by the San Diego County FCD.
- 5. Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable**
- 6. Other Special Provisions – Not Applicable**
- 7. Compliance Schedules – Not Applicable**

VII. COMPLIANCE DETERMINATION

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

A. Compliance with Average Monthly Effluent Limitation (AMEL)

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for the month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample is taken, no compliance determination can be made for that calendar month.

B. Compliance with Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week (Sunday through Saturday) 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 noncompliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If

only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample is taken, no compliance determination can be made for that calendar week.

C. Compliance with Maximum Daily Effluent Limitation (MDEL)

The MDEL shall apply to flow weighted 24-hour composite samples, or grab samples, as specified in the MRP (Attachment E). 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 one day only within the reporting period. For any one day during which no sample is taken, no compliance determination can be made for that day.

D. Compliance with Instantaneous Minimum Effluent Limitation

The instantaneous minimum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, an alleged 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 noncompliance with the instantaneous minimum effluent limitation).

E. Compliance with Instantaneous Maximum Effluent Limitation

The instantaneous maximum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, an alleged 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 noncompliance with the instantaneous maximum effluent limitation).

F. Compliance with 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-day period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

G. 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 MER determined from that sample concentration shall also be reported as "ND" or "DNQ."

H. Ocean Plan Provisions for Table 3 Constituents

Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation.

1. Compliance with Single-constituent Effluent Limitations

The Discharger shall be deemed out of compliance with an effluent limitation or discharge specification if the concentration of the constituent in the monitoring sample is greater than the effluent limitation or discharge specification and greater than or equal to the Minimum Level (ML).

2. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents

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

3. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported ML). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

4. Mass Emission Rate (MER)

The MER, in lbs/day, shall be obtained from the following calculation for any calendar day:

$$\text{MER (lbs/day)} = 8.34 \times Q \times C$$

In which Q and C are the flow rate in MGD and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor (lbs/gallon of water). If a composite sample is taken, then C is the concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited.

I. 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 (CFU/100 mL) found on each day of sampling.

2. The STV used for determining compliance with bacterial standards shall not be exceeded by more than 10 percent of the samples collected in a calendar month, collected in a static manner.

3. Sample dilutions for fecal coliform bacterial analyses should be performed so the range of values extends from 2 to 16,000 CFU. Sample dilutions for enterococci bacterial analyses shall range from 1 to 10,000 CFU per 100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used

for fecal coliform shall be those listed in 40 CFR part 136 or an Alternative Test Procedure approved by USEPA. Detection methods used for enterococci shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR part 136, and any other method approved by the San Diego Water Board.

J. Chronic Toxicity

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

Mean discharge “in-stream” waste concentration (IWC) response $\leq 0.75 \times$ Mean control response.

A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail”. This is a t-test (formally Student’s t-test), a statistical analysis comparing two sets of replicate observations—in the case of WET test, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

The performance goal for chronic toxicity is exceeded when a chronic toxicity test, analyzed using the TST statistical approach, results in “Fail”.

The performance goal for chronic toxicity is set at the IWC for the discharge (1.15% effluent¹) and expressed in units of the TST statistical approach (“Pass” or “Fail”). All monitoring for the performance goal for chronic toxicity shall be reported using the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* (EPA/600/R-95/136, 1995). The San Diego Water Board’s review of reported toxicity test results will include review of concentration-response patterns as appropriate (see section IV.C.5 of the Fact Sheet (Attachment F)). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the no-observed-effect-concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. SOPs used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the San Diego Water Board (40 CFR section 122.41(h)). The San Diego Water Board will make a determination as to whether a toxicity test result is compliant, and may consult with the Discharger, USEPA, the State Water Board’s Quality Assurance (QA) Officer, or the State Water Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP), as needed.

¹ IWC = 1/minimum initial dilution factor (Dm) = 1/87 = 0.0115 = 1.15%

ATTACHMENT A – ABBREVIATIONS AND DEFINITIONS**Part 1. – Abbreviations**

Abbreviation	Definition
40 CFR	Title 40 of the Code of Federal Regulations
AMEL ¹	Average Monthly Effluent Limitation
AQUA	Aquaculture
ASBS ¹	Areas of Special Biological Significance
AWEL ¹	Average Weekly Effluent Limitation
Basin Plan	<i>Water Quality Control Plan for the San Diego Basin</i>
BIOL	Preservation of Biological Habitats of Special Significance
BOD	Biochemical Oxygen Demand
BPJ	Best Professional Judgement
°C	Degrees Celsius
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CIWQS	California Integrated Water Quality System
COMM	Commercial and Sport Fishing
CWA	Clean Water Act
DDT ¹	Dichlorodiphenyltrichloroethane
Discharger	Genentech, Inc.
DMR ¹	Discharge Monitoring Report
DNQ ¹	Detected, But Not Quantified
dS/m	deciSiemens per meter
EC25	Effects Concentration at 25 Percent
ELAP	Environmental Laboratory Accreditation Program
eSMR	Electronic Self-Monitoring Reports
°F	Degrees Fahrenheit
Facility	Genentech, Inc. facility
FCD	Flood Control District
GPS	Global Positioning System
HCH ¹	Hexachlorocyclohexane
Ho	Hypothesis
HSA	Hydrologic Subarea
HU	Hydrologic Unit
IND	Industrial Service Supply
IU	Industrial User
IWC ¹	“In-Stream” Waste Concentration
lbs/day	Pounds per Day
LC	Lethal Concentration
LC 50	Percent Waste Giving 50 Percent Survival of Test Organisms
LSWTP	La Salina Wastewater Treatment Plant
MAR	Marine Habitat
MBGPF	Mission Basin Groundwater Purification Facility
MCBCP	Marine Corps Base, Camp Pendleton
MDEL ¹	Maximum Daily Effluent Limitation

Abbreviation	Definition
MDL ¹	Method Detection Limit
MEC	Maximum Effluent Concentration
MER	Mass Emission Rate
mg/kg	Milligram per Kilogram
mg/L	Milligram per Liter
MGD	Million Gallons per Day
MIGR	Migration of Aquatic Organisms
ML ¹	Minimum Level
ml	Milliliter
ml/L	Milliliter per Liter
MRP	Monitoring and Reporting Program
NAV	Navigation
ND ¹	Not Detected
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
Ocean Plan	<i>Water Quality Control Plan for Ocean Waters of California, California Ocean Plan</i>
OOO	Oceanside Ocean Outfall
PAHs ¹	Polynuclear Aromatic Hydrocarbons
PCBs ¹	Polychlorinated Biphenyls
pCi/L	Picocuries per Liter
PMSD	Percent Minimum Significant Difference
POTWs	Publicly-Owned Treatment Works
ppt	Parts per Thousand
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RARE	Rare, Threatened, or Endangered Species
REC-1	Contact Water Recreation
REC-2	Non-Contact Water Recreation
RCRA	Resource Conservation and Recovery Act
RL	Reporting Level
ROWD	Report of Waste Discharge
RPA	Reasonable Potential Analysis
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
SCCWRP	Southern California Coastal Water Research Project
SHELL	Shellfish Harvesting
SLRWRF	San Luis Rey Water Reclamation Facility
SMR	Self-Monitoring Report
SOU	Single Operational Upset
SPWN	Spawning, Reproduction, and/or Early Development
SSO ¹	Sanitary Sewer Overflow
State Water Board	State Water Resources Control Board
STV	Statistical Threshold Value
TAC	Test Acceptability Criteria
TBELs	Technology-Based Effluent Limitations

Abbreviation	Definition
TCDD ¹	Tetrachlorodibenzodioxin
TDS	Total Dissolved Solids
TIE ¹	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TRE ¹	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
TUa	Toxic Units Acute
TUc ¹	Toxic Units Chronic
µg	Microgram
µg/kg	Microgram per Kilogram
µg/L	Microgram per Liter
UM3	USEPA Modeling Application Visual Plumes
µmhos/cm	micromhos per centimeter
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
U.S.	United States
Water Code	California Water Code
WDRs	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WILD	Wildlife Habitat
WRP	Water Reclamation Plant
WQBELs	Water Quality-Based Effluent Limitations
ZID	Zone of Initial Dilution

¹ See Part 2 of Attachment A (Glossary of Common Terms) for further definition.

Part 2. – Definitions**30-day average**

The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days.

6-Month Median Effluent Limitation

The highest allowable moving median of all daily discharges for any 180-day period.

Antidegradation

Policies which ensure protection of water quality for a particular body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters.

Areas of Special Biological Significance (ASBS)

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

Average Monthly Effluent Limitation (AMEL)

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

Average Weekly Effluent Limitation (AWEL)

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

Beneficial Uses

The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. "Beneficial Uses" of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. In the Basin Plan, existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [Water Code section 13050(f)].

Bioaccumulation

The accumulation of contaminants in the tissues of organisms through any route, including respiration, ingestion, or direct contact with contaminated water, sediment, food, or dredged material.

Bypass

The intentional diversion of waste streams from any portion of a treatment facility. (40 CFR section 122.41(m)(1)(i).)

Chlordane

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

Chlorinated Phenolics

The sum of 4-chloro-3-methylphenol, 2-chlorophenol, pentachlorophenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol.

Chronic Toxicity

Chronic toxicity is the measure of the sub-lethal effects of a discharge or ambient water sample (e.g. reduced growth or reproduction). Certain chronic toxicity tests include an additional measurement of lethality.

Composite Sample

A composite sample is defined as a combination of at least eight sample aliquots of at least 100 ml, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. Unless otherwise authorized by the San Diego Water Board, the composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. The 100 ml minimum volume of an aliquot does not apply to automatic self-purging samplers. If one 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.

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.

A grab sample is an individual sample of at least 100 ml collected at a randomly selected time over a period not exceeding 15 minutes.

Degrade

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

Desalination Facility

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

Detected, But Not Quantified (DNQ)

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes

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

Dichlorodiphenyltrichloroethane (DDT)

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

Discharge of a Pollutant

Discharge of a pollutant means: (a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or (b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger." "Discharge" when used without qualification means the "discharge of a pollutant." (40 CFR section 122.2)

Discharge Monitoring Reports (DMRs)

The DMRs means the U.S. Environmental Protection Agency (USEPA) uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by "approved States" as well as by USEPA. USEPA will supply DMRs to any approved State upon request. The USEPA national forms may be modified to substitute the State agency name, address, logo, and other similar information, as appropriate, in place of USEPA's.

Downstream Ocean Waters

Waters downstream with respect to ocean currents.

Dredged Material

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

Enclosed Bays

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

Endosulfan

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

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

Halomethanes

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

HCH

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

Initial Dilution

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

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

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

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Kelp Beds

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

Mariculture

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

Material

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

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant.

Method Detection Limit (MDL)

The minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 CFR part 136, Attachment B.

Minimum Level (ML)

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

Natural Light

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

Not Detected (ND)

Those sample results less than the laboratory's MDL.

Ocean Waters

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

PAHs (polynuclear aromatic hydrocarbons)

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

PCBs (polychlorinated biphenyls)

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

Phenolic Compounds (non-chlorinated)

The sum of 2,4-dimethylphenol, 4,6-Dinitro-2-methylphenol, 2,4-dinitrophenol, 2-methylphenol, 4-methylphenol, 2-nitrophenol, 4-nitrophenol, and phenol.

Pollutant

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean: (a) Sewage from vessels; or (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Pollutant Minimization Program (PMP)

A program to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation.

Recycled Water

Recycled water means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.

Reported Minimum Level

The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the San Diego 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 System

Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly-owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

Severe Property Damage

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 section 122.41(m)(1)(ii))

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

See 6-Month Median above for definition of this term.

Sludge

Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect.

State Water Quality Protection Areas (SWQPAs)

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

Statistical Threshold Value (STV)

A set value that approximates the 90th percentile of the water quality distribution for a bacterial population.

TCDD Equivalentents

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

Thirty-Day Average

See 30-day average above for definition of this term.

Toxicity Identification Evaluation (TIE)

A set of procedures conducted to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

Toxicity Reduction Evaluation (TRE)

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

Trash

Trash means all improperly discarded solid material from any production, manufacturing, or processing operation including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or other synthetic or natural materials.

Waste

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

Water Quality Control Plans

There are two types of water quality control plans - Basin Plans and Statewide Plans. Regional Boards adopt Basin Plans for each region based upon surface water hydrologic basin boundaries. The Regional Basin Plans designates or describes (1) existing and potential beneficial uses of ground and surface water; (2) water quality objectives to protect the beneficial uses; (3) implementation programs to achieve these objectives; and (4) surveillance and monitoring activities to evaluate the effectiveness of the water quality control plan. The Statewide Plans address water quality concerns for surface waters that overlap Regional Board boundaries, are statewide in scope, or are otherwise considered significant and contain the same four elements. Statewide Water Quality Control Plans include the Ocean Plan, the Enclosed Bays and Estuaries Plan, the Inland Surface Waters Plan, and the Thermal

Plan. A water quality control plan consists of a designation or establishment for the waters within a specified area of (1) beneficial uses to be protected, (2) water quality objectives, and (3) a program of implementation needed for achieving water quality objectives [Water Code section 13050(j)].

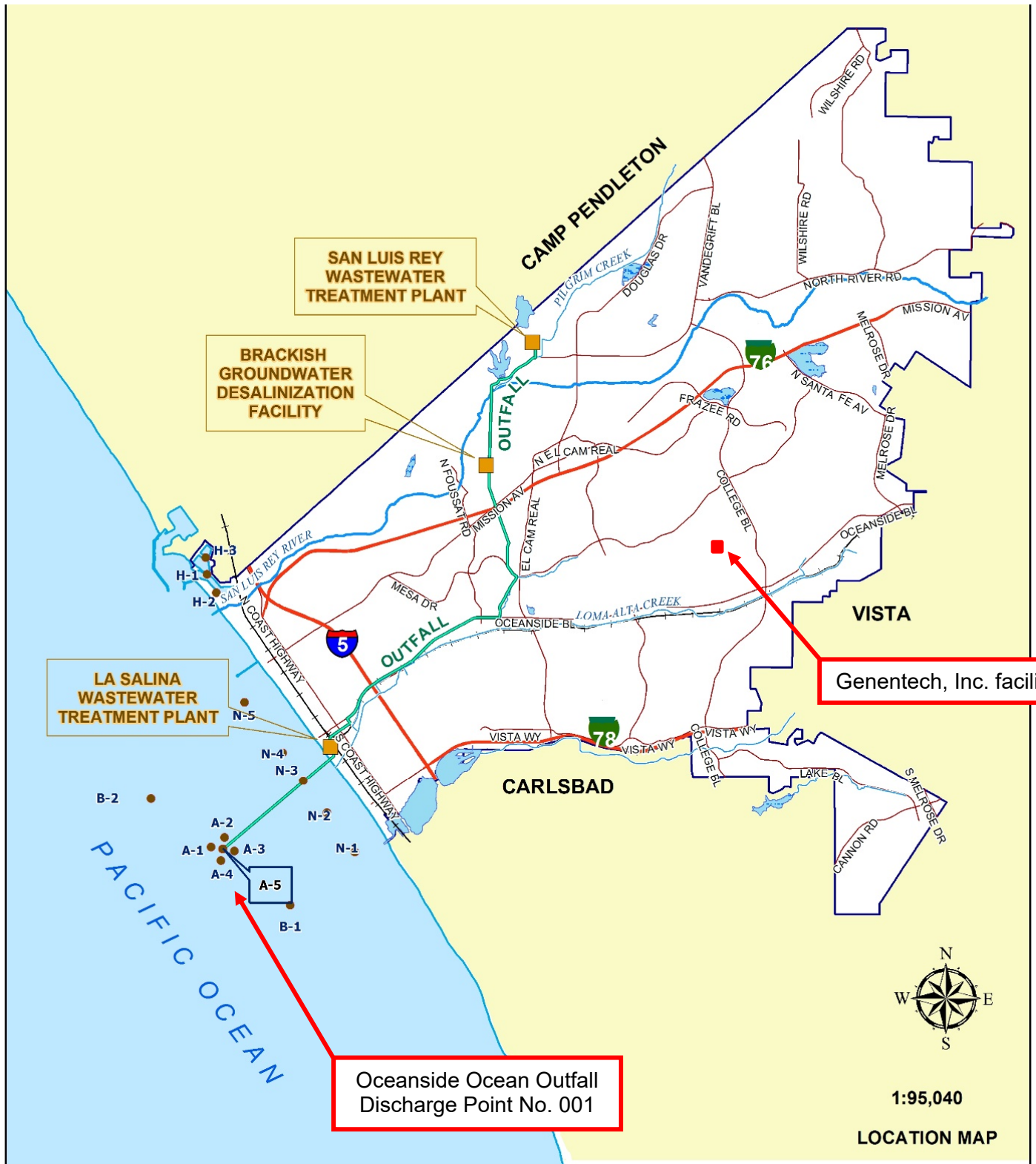
Water Quality Objectives

Numerical or narrative limits on constituents or characteristics of water designed to protect designated beneficial uses of the water. [Water Code section 13050(h)]. California's water quality objectives are established by the State and Regional Water Boards in the Water Quality Control Plans.

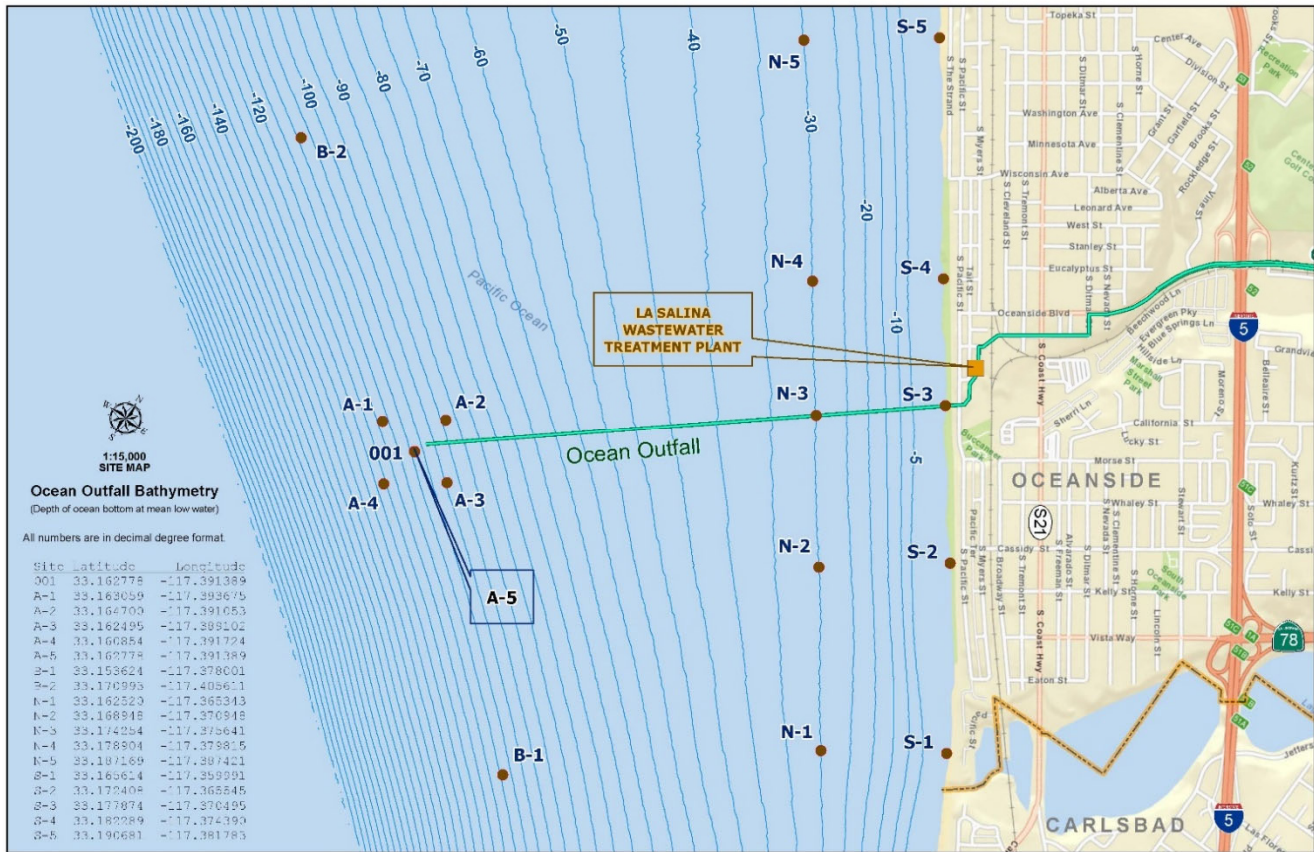
Water Quality Standards

Provisions of State or federal law which consist of a designated use or uses for waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act [40 CFR section 131.3(i)]. Under State law, the Water Boards establish beneficial uses and water quality objectives in their water quality control plans or basin plans. Together with an antidegradation policy, these beneficial uses and water quality objectives serve as water quality standards under the Clean Water Act. In Clean Water Act parlance, state beneficial uses are called "designated uses" and state water quality objectives are called "criteria." Throughout this Order, the relevant term is used depending on the statutory scheme.

ATTACHMENT B – MAP

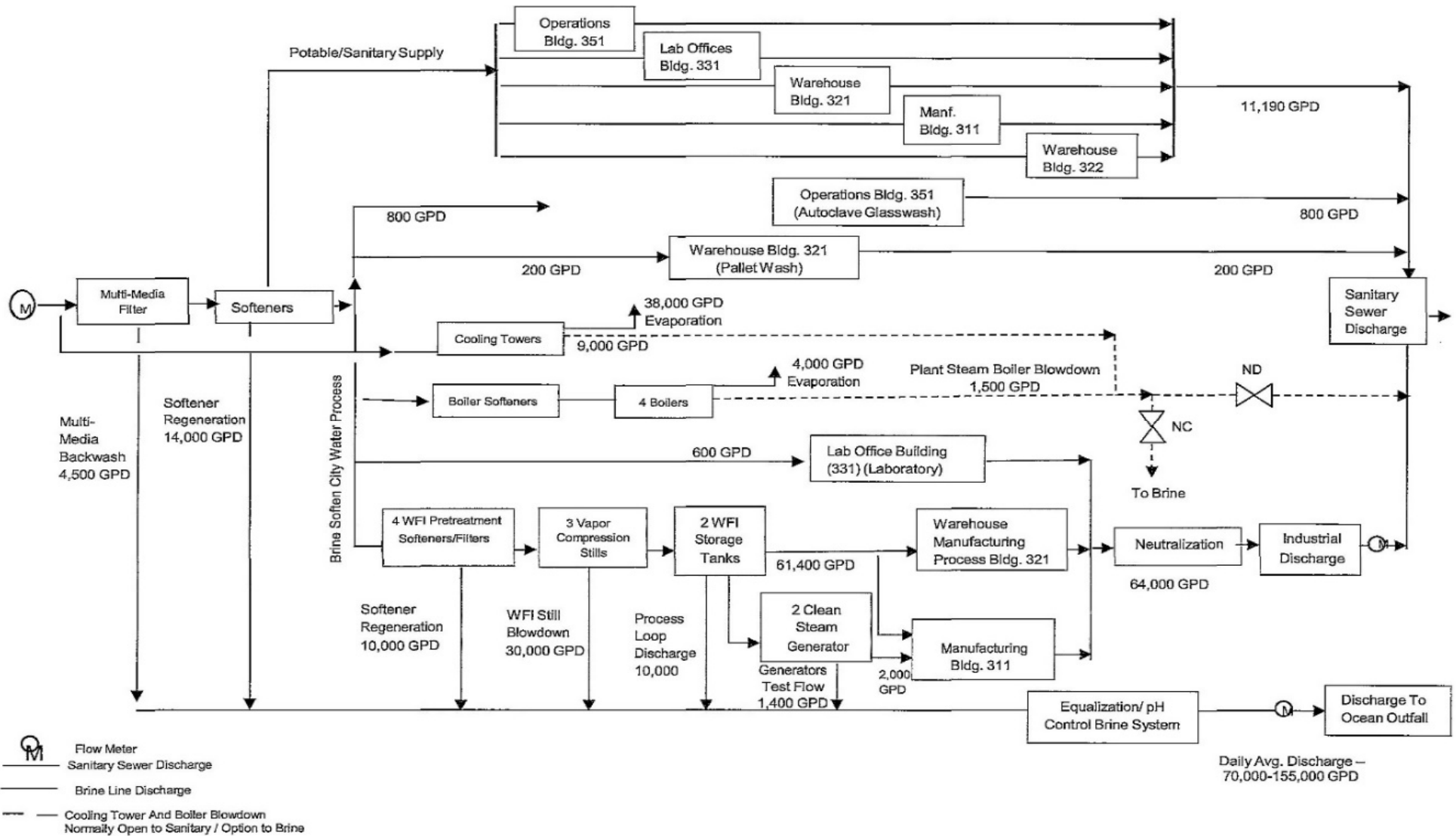


Facility and Discharge Point Location Map



Oceanside Ocean Outfall Monitoring Locations

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS**I. STANDARD PROVISIONS – PERMIT COMPLIANCE****A. Duty to Comply**

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (Water Code) and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (title 40 of the Code of Federal Regulations (40 CFR) sections 122.41(a); Water Code, sections 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR section 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 section 122.41(c).)

C. Duty to Mitigate

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

E. Property Rights

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

F. Inspection and Entry

The Discharger shall allow the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), State Water Resources Control Board (State Water Board), U.S. 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 section 122.41(i); Water Code, sections 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. section 1318(a)(4)(b)(i); 40 CFR section 122.41(i)(1); Water Code, sections 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. section 1318(a)(4)(b)(ii); 40 CFR section 122.41(i)(2); Water Code, sections 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. section 1318(a)(4)(b)(ii); 40 CFR section 122.41(i)(3); Water Code, sections 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. section 1318(a)(4)(b); 40 CFR section 122.41(i)(4); Water Code, sections 13267, 13383.)

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR section 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 section 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 section 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the San Diego Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR section 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR section 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 section 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the San Diego Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR section 122.41(m)(4)(i)(C).)

4. The San Diego Water Board may approve an anticipated bypass, after considering its adverse effects, if the San Diego Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR section 122.41(m)(4)(ii).)
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the San Diego Water Board. (40 CFR section 122.41(m)(3)(i).)
 - b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the San Diego Water Board. (40 CFR section 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 section 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 section 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 section 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR section 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 CFR section 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR section 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR section 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR section 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION**A. General**

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

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

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR sections 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to

complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the San Diego Water Board Executive Officer at any time. (40 CFR section 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the San Diego Water Board, State Water Board, or USEPA within a reasonable time, any information which the San Diego 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 San Diego Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR section 122.41(h); Water Code, sections 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the San Diego Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 CFR section 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR section 122.22(a)(3).)
3. All reports required by this Order and other information requested by the San Diego 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 section 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 section 122.22(b)(2)); and
 - c. The written authorization is submitted to the San Diego Water Board and State Water Board. (40 CFR section 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 San Diego 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 section 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 section 122.22(d).)
 6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R section 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR section 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the San Diego Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR section 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the San Diego Water Board or State Water Board. (40 CFR section 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 section 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 section 122.41(l)(5).)

E. Twenty-Four Hour Reporting

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

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

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

2. The following shall be included as information that must be reported within 24 hours:
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR section 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 CFR section 122.41(l)(6)(ii)(B).)
3. The San Diego Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR section 122.41(l)(6)(ii)(B).)

F. Planned Changes

The Discharger shall give notice to the San Diego 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 section 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 section 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR section 122.41(l)(1)(ii).)

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 CFR part 127. The San Diego Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR section 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 San Diego Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR section 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

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

- A.** That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR section 122.42(a)(1)):
1. 100 micrograms per liter ($\mu\text{g/L}$) (40 CFR section 122.42(a)(1)(i));
 2. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4 dinitrophenol and 2 methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR section 122.42(a)(1)(ii));
 3. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR section 122.42(a)(1)(iii)); or
 4. The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR section 122.42(a)(1)(iv).)
- B.** That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR section 122.42(a)(2)):
1. 500 $\mu\text{g/L}$ (40 CFR section 122.42(a)(2)(i));
 2. 1 mg/L for antimony (40 CFR section 122.42(a)(2)(ii));
 3. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR section 122.42(a)(2)(iii)); or
 4. The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR section 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

I. General Monitoring Provisions E-3
II. Monitoring Locations E-4
III. Core Monitoring Requirements E-4
IV. Receiving Water Monitoring Requirements E-13
V. Regional Monitoring Requirements E-13
 A. Kelp Bed Canopy Monitoring Requirements E-13
 B. Southern California Bight Monitoring Program Participation Requirements E-14
VI. Special Studies Requirements – Not Applicable E-14
VII. Reporting Requirements E-14
 A. General Monitoring and Reporting Requirements E-14
 B. Self-Monitoring Reports (SMRs) E-14
 C. Discharge Monitoring Reports (DMRs) E-16
 D. Other Reports E-17

TABLES

Table E-1. Monitoring Station Locations E-4
Table E-2. Effluent Monitoring at Monitoring Location EFF-001¹ E-4
Table E-3. Monitoring Periods and Reporting Schedule E-15
Table E-4. Other Reports E-17

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code (Water Code) sections 13267 and 13383 also authorize the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Pursuant to this authority, this MRP establishes conditions for Genentech, Inc. (Discharger) to conduct routine or episodic self-monitoring of the discharges regulated under this Order at specified effluent and receiving water monitoring locations. The MRP requires the Discharger to report the results to the San Diego Water Board with information necessary to evaluate discharge characteristics and compliance status.

The purpose of the MRP is to determine and ensure compliance with effluent limitations and other requirements established in this Order, assess treatment efficiency, characterize effluents, and characterize the receiving water and the effects of the discharge on the receiving water. The MRP also specifies requirements concerning the proper use, maintenance, and installation of monitoring equipment and methods, and the monitoring type intervals and frequency necessary to yield data that are representative of the activities and discharges regulated under this Order.

Each monitoring section contains an introductory paragraph summarizing why the monitoring is needed and the key management questions the monitoring is designed to answer. In developing the list of key management questions the San Diego Water Board considered four basic types of information for each question:

- (1) Management Information Need – Why does the San Diego Water Board need to know the answer?
- (2) Monitoring Criteria – What monitoring will be conducted for deriving an answer to the question?
- (3) Expected Product – How should the answer be expressed and reported?
- (4) Possible Management Actions – What actions will be potentially influenced by the answer?

The framework for this monitoring program has three components that comprise a range of spatial and temporal scales: 1. core monitoring, 2. regional monitoring, and 3. special studies.

1. Core monitoring consists of the basic site-specific monitoring necessary to measure compliance with individual effluent limits and/or impacts to receiving water quality. Core monitoring is typically conducted in the immediate vicinity of the discharge by examining local scale spatial effects.
2. Regional monitoring provides information necessary to make assessments over large areas and serves to evaluate cumulative effects of all anthropogenic inputs. Regional monitoring data also assists in the interpretation of core monitoring studies. In the event that a regional monitoring effort takes place during the permit cycle in which the MRP does not specifically address regional monitoring, the San Diego Water Board may allow relief from aspects of core monitoring components in order to encourage participation pursuant to section V of this MRP.
3. Special studies are directed monitoring efforts designed in response to specific management or research questions identified through either core or regional monitoring programs. Often they are used to help understand core or regional monitoring results, where a specific environmental process is not well understood, or to address unique issues of local importance.

I. GENERAL MONITORING PROVISIONS

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in section II, Table E-1 and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the San Diego Water Board.
- B.** All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The flow measurement devices shall be installed, calibrated at least once per year (i.e., no more than 12 months between calibrations) or more frequently, and maintained to ensure that the accuracy of the measurement is consistent with the accepted capability of that type of device. The flow measurement devices selected shall be capable of measuring flows with a maximum deviation of less than ± 5 percent from true discharge rates throughout the range of expected discharge volumes.
- C.** Monitoring must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved at 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the CWA* as amended, or unless other test procedures are specified in this Order and attachments thereof or an alternative test procedure (ATP) approved by USEPA, or by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136.
- D.** Data produced and reports submitted pursuant to this Order shall be generated by a laboratory accredited by the State of California Environmental Laboratory Accreditation Program (ELAP). The laboratory must hold a valid certificate of accreditation for the analytical test method specified in 40 CFR 136, an ATP approved by USEPA, or by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136. The laboratory must include quality assurance/quality control data in all data reports required by this Order and submit electronic data as required by the San Diego Water Board. Data generated using field tests is exempt pursuant to California Water Code Section 13176. Additional information on ELAP can be accessed at: http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml.
- E.** Records of monitoring information shall include information required under Standard Provision, Attachment D, section IV of this Order.
- F.** The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of 10 percent of the samples or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. The Discharger should have a success rate equal or greater than 80 percent.
- G.** Analysis for toxic pollutants, including chronic toxicity, with effluent limitations or performance goals based on water quality objectives and criteria of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) and the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) shall be conducted in accordance with procedures described in the Ocean Plan and restated in this MRP.
- H.** The Discharger shall ensure that analytical procedures used to evaluate compliance with effluent limitations or performance goals established in this Order use minimum levels (ML)

no greater than the applicable effluent limitations or performance goals and are consistent with the requirements of 40 CFR part 136, or otherwise approved by USEPA and authorized by the San Diego Water Board. If no authorized ML value is below the effluent limitation, then the method must achieve an ML no greater than the lowest ML value provided in 40 CFR part 136.

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Type of Monitoring Location	Monitoring Location Description
001	EFF-001	Effluent	At a location where a representative sample of waste brine can be obtained from the Genentech, Inc. facility (Facility), prior to commingling with other discharges contributing to the Oceanside Ocean Outfall (OOO). (approximately: 33°9'46" N 117°23'28" W)

III. Core Monitoring Requirements

A. Influent Monitoring Requirements – Not Applicable

B. Effluent Monitoring Requirements

Effluent monitoring is the collection and analysis of samples or measurements of effluents, after all treatment processes, to determine and quantify contaminants and to demonstrate compliance with applicable effluent limitations, standards, and other requirements of this Order.

Effluent monitoring is necessary to address the following questions:

- (1) Does the effluent comply with permit effluent limitations, performance goals, and other requirements of this Order, thereby ensuring that water quality standards are achieved in the receiving water?
- (2) What is the mass of constituents that are discharged daily, monthly, or annually?
- (3) Is the effluent concentration or mass changing over time?
- (4) Is the Facility being properly operated and maintained to ensure compliance with the conditions of this Order?

- 1. The Discharger shall monitor the effluent at Monitoring Location EFF-001 (Discharge Point No. 001) as follows:

Table E-2. Effluent Monitoring at Monitoring Location EFF-001¹

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	million gallons per day (MGD)	Recorder/ Totalizer	Continuous	--
Temperature	°F	Grab	2/Year	²
Specific Electrical Conductivity (@ 25°C)	micromhos per centimeter (µmhos/cm)	Grab	1/Month	²

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Oil and Grease	milligram per liter (mg/L)	Grab	2/Year ^{3,4}	2
Total Suspended Solids (TSS)	mg/L	24-hr Composite	2/Year ^{3,4}	2
Settleable Solids	milliliter per liter (ml/L)	Grab	2/Year ⁴	2
Turbidity	nephelometric turbidity unit (NTU)	Grab	2/Year ⁴	2
pH	standard units	Grab	2/Year ⁴	2
TABLE 3 PARAMETERS FOR THE PROTECTION OF MARINE AQUATIC LIFE				
Arsenic, Total Recoverable	microgram per liter (µg/L)	24-hr Composite	1/Year ^{3,4}	2
Chromium (VI), Total Recoverable ⁷	µg/L	24-hr Composite	1/Year ^{3,4}	2
Copper, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Nickel, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Silver, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Lead, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Mercury, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Selenium, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Zinc, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Cyanide, Total	µg/L	24-hr Composite	1/Year ^{3,4}	2,6
Total Chlorine Residual	µg/L	Grab	1/Quarter ^{3,4}	2
Ammonia (expressed as nitrogen)	µg/L	24-hr Composite	1/Quarter ^{3,4}	2
Chronic Toxicity	“Pass”/“Fail” and “Percent Effect” (Test of Significant Toxicity) ⁷	24-hr Composite	2/Five Years ⁹	8
Phenolic compounds ¹ (non-chlorinated)	µg/L	24-hr Composite	1/Year ^{3,4}	2
Chlorinated phenolics ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
Endosulfan ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
Endrin	µg/L	24-hr Composite	1/Year ^{3,4}	2
HCH ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
Radioactivity(alpha and beta particles)	picocuries per liter (pCi/L)	24-hr Composite	1/Year ^{3,4}	2
TABLE 3 PARAMETERS FOR THE PROTECTION OF HUMAN HEALTH – NONCARCINOGENS				
Acrolein	µg/L	Grab	1/Year ^{3,4}	2
Antimony, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Bis(2-chloroethoxy) Methane	µg/L	24-hr Composite	1/Year ^{3,4}	2
Bis(2-chloroisopropyl) Ether	µg/L	24-hr Composite	1/Year ^{3,4}	2
Chlorobenzene	µg/L	Grab	1/Year ^{3,4}	2
Chromium (III), Total Recoverable ⁵	µg/L	24-hr Composite	1/Year ^{3,4}	2
Di-n-butyl Phthalate	µg/L	24-hr Composite	1/Year ^{3,4}	2
Dichlorobenzenes ¹	µg/L	Grab	1/Year ^{3,4}	2
Diethyl Phthalate	µg/L	24-hr Composite	1/Year ^{3,4}	2
Dimethyl Phthalate	µg/L	24-hr Composite	1/Year ^{3,4}	2

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
4,6-dinitro-2-methylphenol	µg/L	24-hr Composite	1/Year ^{3,4}	2
2,4-dinitrophenol	µg/L	24-hr Composite	1/Year ^{3,4}	2
Ethylbenzene	µg/L	Grab	1/Year ^{3,4}	2
Fluoranthene	µg/L	24-hr Composite	1/Year ^{3,4}	2
Hexachlorocyclopentadiene	µg/L	24-hr Composite	1/Year ^{3,4}	2
Nitrobenzene	µg/L	24-hr Composite	1/Year ^{3,4}	2
Thallium, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Toluene	µg/L	Grab	1/Year ^{3,4}	2
Tributyltin	µg/L	24-hr Composite	1/Year ^{3,4}	2
1,1,1-trichloroethane	µg/L	Grab	1/Year ^{3,4}	2
TABLE 3 PARAMETERS FOR THE PROTECTION OF HUMAN HEALTH – CARCINOGENS				
Acrylonitrile	µg/L	Grab	1/Year ^{3,4}	2
Aldrin	µg/L	24-hr Composite	1/Year ^{3,4}	2
Benzene	µg/L	Grab	1/Year ^{3,4}	2
Benzidine	µg/L	24-hr Composite	1/Year ^{3,4}	2
Beryllium, Total Recoverable	µg/L	24-hr Composite	1/Year ^{3,4}	2
Bis(2-chloroethyl) Ether	µg/L	24-hr Composite	1/Year ^{3,4}	2
Bis(2-ethylhexyl) Phthalate	µg/L	24-hr Composite	1/Year ^{3,4}	2
Carbon Tetrachloride	µg/L	Grab	1/Year ^{3,4}	2
Chlordane ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
Chlorodibromomethane	µg/L	Grab	1/Year ^{3,4}	2
Chloroform	µg/L	Grab	1/Year ^{3,4}	2
Dichlorodiphenyltrichloroethane (DDT) ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
1,4-dichlorobenzene	µg/L	Grab	1/Year ^{3,4}	2
3-3'-dichlorobenzidine	µg/L	24-hr Composite	1/Year ^{3,4}	2
1,2-dichloroethane	µg/L	Grab	1/Year ^{3,4}	2
1,1-dichloroethylene	µg/L	Grab	1/Year ^{3,4}	2
Dichlorobromomethane	µg/L	Grab	1/Year ^{3,4}	2
Dichloromethane (Methylene Chloride)	µg/L	Grab	1/Year ^{3,4}	2
1,3-dichloropropene	µg/L	Grab	1/Year ^{3,4}	2
Dieldrin	µg/L	24-hr Composite	1/Year ^{3,4}	2
2,4-dinitrotoluene	µg/L	24-hr Composite	1/Year ^{3,4}	2
1,2-diphenylhydrazine	µg/L	24-hr Composite	1/Year ^{3,4}	2
Halomethanes ¹	µg/L	Grab	1/Year ^{3,4}	2
Heptachlor	µg/L	24-hr Composite	1/Year ^{3,4}	2
Heptachlor Epoxide	µg/L	24-hr Composite	1/Year ^{3,4}	2
Hexachlorobenzene	µg/L	24-hr Composite	1/Year ^{3,4}	2
Hexachlorobutadine	µg/L	24-hr Composite	1/Year ^{3,4}	2
Hexachloroethane	µg/L	24-hr Composite	1/Year ^{3,4}	2
Isophorone	µg/L	24-hr Composite	1/Year ^{3,4}	2
N-nitrosodimethylamine	µg/L	24-hr Composite	1/Year ^{3,4}	2
N-nitrosodi-n-propylamine	µg/L	24-hr Composite	1/Year ^{3,4}	2
N-nitrosodiphenylamine	µg/L	24-hr Composite	1/Year ^{3,4}	2
Polynuclear Aromatic Hydrocarbons (PAHs) ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
Polychlorinated Biphenyls (PCBs) ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
TCDD Equivalents ¹	µg/L	24-hr Composite	1/Year ^{3,4}	2
1,1,1,2,2-tetrachloroethane	µg/L	Grab	1/Year ^{3,4}	2

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Tetrachloroethylene	µg/L	Grab	1/Year ^{3,4}	2
Toxaphene	µg/L	24-hr Composite	1/Year ^{3,4}	2
Trichloroethylene	µg/L	Grab	1/Year ^{3,4}	2
1,1,2-trichloroethane	µg/L	Grab	1/Year ^{3,4}	2
2,4,6-trichlorophenol	µg/L	24-hr Composite	1/Year ^{3,4}	2
Vinyl Chloride	µg/L	Grab	1/Year ^{3,4}	2

- ¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.
- ² As required under 40 CFR part 136.
- ³ The Discharger shall calculate and report the mass emission rate (MER) of the constituent for each sample taken. The MER shall be calculated in accordance with section VII.H.4 of this Order.
- ⁴ The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the applicable effluent limitation or performance goal specified in this Order. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all applicable effluent limitations or performance goals specified in this Order.
- ⁵ The Discharger may, at their option, meet this performance goal as a total chromium performance goal and monitor for total recoverable chromium in lieu of total recoverable chromium (III) or total recoverable chromium (VI).
- ⁶ If a Discharger can demonstrate to the satisfaction of the San Diego Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, performance goals may be evaluated with the combined measurement of free cyanide, simple alkali metals cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR part 136, as revised May 14, 1999.
- ⁷ To determine if the performance goal was met, chronic toxicity results shall be reported as “Pass” or “Fail”. For monitoring purpose only, chronic toxicity results shall also include “Percent Effect”.
- ⁸ As specified in section VII.J of this Order and section III.C of this MRP (Attachment E).
- ⁹ The Discharger shall coordinate the monitoring for chronic toxicity with the City of Oceanside, Fallbrook Public Utility District, and MCBCP.

C. Whole Effluent Toxicity Testing Requirements

The WET refers to the overall aggregate toxic effect of an effluent measured directly by an aquatic toxicity test(s). The control of WET is one approach this Order uses to control the discharge of toxic pollutants. WET tests evaluate the 1) aggregate toxic effects of all chemicals in the effluent including additive, synergistic, or antagonistic toxicity effects; 2) the toxicity effects of unmeasured chemicals in the effluent; and 3) variability in bioavailability of the chemicals in the effluent.

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

- (1) Does the effluent meet the performance goal for toxicity thereby ensuring that water quality standards are achieved in the receiving water?
- (2) If the effluent does not meet the performance goal for toxicity, are unmeasured pollutants causing risk to aquatic life?
- (3) If the effluent does not meet the performance goal for toxicity, are pollutants in combinations causing risk to aquatic life?

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

The chronic IWC is calculated by dividing 100 percent by the dilution ratio. The chronic toxicity IWC is 1.15 percent effluent.

2. Sample Volume and Holding Time

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

3. Chronic Marine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity > one parts per thousand (ppt), the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the Discharge IWC (1.15 percent effluent), in accordance with species and test methods in *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the San Diego Water Board is received.

- a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01). If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the Discharger shall conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.01), found in the third edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, 2002; Table IA, 40 CFR part 136). Additional species may be used by the Discharger if approved by the San Diego Water Board.
- b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*/sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0); or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).
- c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted once during the permit term during this Order's first required sample collection.

For each suite during the species sensitivity screening, the Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Atherinops affinis*, a second and third sample shall be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass," then the

species that exhibits the highest “Percent Effect” at the discharge IWC is considered the most sensitive species for that suite. If only one species fails, then that species is considered the most sensitive species for that suite. Likewise, if two or more species result in “Fail,” then the species that exhibits the highest “Percent Effect” at the discharge IWC is considered the most sensitive species for that suite.

If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

The species used during routine monitoring shall be the most sensitive species from the most recent species sensitivity screening.

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

5. Quality Assurance (QA) and Additional Requirements

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

- a. The discharge is subject to determination of “Pass” or “Fail” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833- R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 and Appendix B, Table B-1. The null hypothesis (H_0) for the TST statistical approach is: Mean discharge IWC response $\leq 0.75 \times$ Mean control response. A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail”. This is a t-test (formally Student’s t-test), a statistical analysis comparing two sets of replicate observations—in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances. The relative “Percent Effect” at the discharge IWC is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$.
- b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), the test should be declared invalid, then the Discharger must resample and re-test within 14 days of test termination.
- c. Dilution water and control water, including brine controls, shall be 1-micrometer-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. Dilution water and control water, including brine controls, shall be uncontaminated natural water, as specified in the test

methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

- d. Monthly reference toxicant testing is sufficient if in accordance with *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). All reference toxicant test results should be reviewed and reported using the effects concentration at 25 percent (EC25).
- e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of this MRP and the rationale is explained in the Fact Sheet (Attachment F).

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

The Discharger shall prepare and submit a copy of the Discharger's Initial Investigation TRE Work Plan to the San Diego Water Board for approval within 90 days of the effective date of this Order. If the San Diego Water Board does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual, *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989), or most current version, as guidance. The TRE Work Plan shall describe the steps that the Discharger intends to follow if toxicity is detected, and shall include, at a minimum:

- a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- b. A description of the Discharger's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,
- c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

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

The maximum daily single result of a "Fail" shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware that the maximum daily single result is "Fail," the Discharger shall notify the San Diego Water Board and implement an accelerated monitoring schedule within five calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the San Diego Water Board is notified, and the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two-week intervals, over an eight-week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring

schedules, TST results (“Pass” or “Fail”) for chronic toxicity tests shall be used to compare with the chronic toxicity performance goal.

8. TRE Process

During the TRE Process, minimum effluent monitoring shall resume and TST results (“Pass” or “Fail”) for chronic toxicity tests shall be used to compare with the chronic toxicity performance goal.

- a. Preparation and Implementation of Detailed TRE Work Plan. The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual, *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989) and, within 15 days of receiving validated results, submit to the San Diego Water Board a Detailed TRE Work Plan, which shall follow the Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the San Diego Water Board:
 - i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity;
 - ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and
 - iii. A schedule for these actions, progress reports, and the final report.
- b. TIE Implementation. The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005, 1991); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
- c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. Whenever possible, TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
- d. The Discharger shall continue to conduct the minimum effluent monitoring while the TRE and/or TIE process is taking place. Additional accelerated monitoring and TRE Work Plans are not required once a TRE is begun.
- e. The San Diego Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. Upon approval from the San Diego Water Board, the TRE may be ended at any stage if routine monitoring finds there is no longer toxicity.

- f. The San Diego Water Board may consider the results of any TRE/TIE studies in an enforcement action.

9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation¹, and shall include:

- a. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-11.
- b. Summary water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- c. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.
- d. TRE/TIE results. The San Diego Water Board shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TRE/TIE report, the Discharger shall provide status updates in the monthly SMRs, indicating which TRE/TIE steps are underway, which steps have been completed, and the estimated time to completion of the final TRE/TIE report. The final TRE/TIE report shall be submitted to the San Diego Water Board within 30 days of report completion.
- e. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- f. Graphical plots clearly showing the laboratory’s performance for the reference toxicant for the previous 20 tests and the laboratory’s performance for the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.
- g. Any additional quality assurance/quality control (QA/QC) documentation or any additional chronic toxicity-related information, upon written request from the San Diego Water Board.

D. Land Discharge Monitoring Requirements – Not Applicable

E. Recycling Monitoring Requirements – Not Applicable

¹ Section 10 of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to the West Coast Marine and Estuarine Organisms, August 1995, EPA/600/R-95-136, https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=524691

IV. RECEIVING WATER MONITORING REQUIREMENTS

The City of Oceanside; Fallbrook Public Utility District; and Marine Corps Base, Camp Pendleton (MCBCP) conduct receiving water monitoring for their individual discharges to the OOO.² The receiving water monitoring is designed to measure the effects of the OOO discharge on the receiving ocean waters, including effects on coastal water quality, seafloor sediments, and marine life. The receiving water monitoring data may be used, in conjunction with other pertinent technical information, to determine compliance with the receiving water limitations and other related provisions of this Order. The Discharger shall review the receiving water monitoring reports submitted by the City of Oceanside, Fallbrook Public Utility District, and MCBCP as they become available on the State Water Board website at

<http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportEsmrAtGlanceServlet?inCommand=reset>.

V. REGIONAL MONITORING REQUIREMENTS

Regional ocean water monitoring provides information about the sources, fates, and effects of anthropogenic contaminants in the coastal marine environment necessary to make assessments over large areas. The large-scale assessments provided by regional monitoring describe and evaluate cumulative effects of all anthropogenic inputs and enable better decision-making regarding protection of beneficial uses of ocean waters. Regional monitoring data assists in the interpretation of core monitoring studies by providing a more accurate and complete characterization of reference conditions and natural variability. Regional monitoring also leads to methods standardization and improved quality control through inter-calibration exercise. The coalitions implementing regional monitoring enable sharing of technical resources, trained personnel, and associated costs. Focusing these resources on regional issues and developing a broader understanding of pollutants effects in ocean waters enables the development of more rapid and effective response strategies. Based on all of these considerations the San Diego Water Board supports regional approaches to monitoring ocean waters.

The Discharger is encouraged to participate with other regulated entities, other interested parties, and the San Diego Water Board in development and implementation of new and improved monitoring and assessment programs for ocean waters in the San Diego Region and discharges to those waters.

A. Kelp Bed Canopy Monitoring Requirements

Kelp consists of a number of species of brown algae. Along the central and southern California coast, giant kelp (*Macrocystis pyrifera*) is the largest species colonizing rocky, and in some cases sandy, subtidal habitats. Giant kelp is an important component of coastal and island communities in southern California, providing food and habitat for numerous animals. Monitoring of the kelp beds is necessary to answer the following questions:

² Wastewater and waste brine from the City is regulated by separate WDRs, Order No. R9-2019-0166, NPDES No. CA0107433, Waste Discharge Requirements for the City Of Oceanside, San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharges to the Pacific Ocean via the Oceanside Ocean Outfall. Effluent from the Fallbrook Water Reclamation Plant is regulated by separate WDRs, Order No. R9-2019-0169, NPDES No. CA0108031, *Waste Discharge Requirements for the Fallbrook Public Utility District Wastewater Treatment Plant No. 1 Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*). Wastewater and waste brine from the Southern Regional Tertiary Treatment Plant and the Advanced Water Treatment Plant at Haybarn Canyon is regulated by separate WDRs, Order No. R9-2019-0167, NPDES No. CA0109347, *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant, Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*.

- (1) What is the maximum areal extent of the coastal kelp bed canopies each year?
- (2) What is the variability of the coastal kelp bed canopy over time?
- (3) Are coastal kelp beds disappearing? If yes, what are factors that could contribute to the disappearance?
- (4) Are new coastal kelp beds forming?

The City of Oceanside, the MCBCP, and the Fallbrook Public Utility District participate, for their individual discharges to the OOO, in an ongoing regional survey of coastal kelp beds in the Southern California Bight. The intent of these surveys is to provide an indication of the health of these kelp beds, recognizing that the extent of kelp bed canopies may change due to variety of influences. Kelp bed canopy data obtained from the regional monitoring program may be used, in conjunction with other pertinent technical information, to determine compliance with the receiving water limitations and other related provisions of this Order. The Discharger shall review the findings and conclusions of each annual Status of the Kelp Beds Report as it becomes available on the Southern California Bight Regional Aerial Kelp Surveys website at <http://kelp.sccwrp.org/reports.html>.

B. Southern California Bight Monitoring Program Participation Requirements

The Discharger may be requested by the San Diego Water Board to participate in the Southern California Bight Regional Monitoring Program coordinated by the Southern California Coastal Water Research Project (SCCWRP), or any other coordinated regional monitoring effort named by the San Diego Water Board, pursuant to Water Code sections 13267 and 13383, and 40 CFR section 122.48. The intent of the Southern California Bight Regional Monitoring Program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled scientific resources of the Southern California Bight.

VI. SPECIAL STUDIES REQUIREMENTS – NOT APPLICABLE

VII. 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. The Discharger shall report all instances of noncompliance not reported under sections V.E, V.G, and V.H of the Standard Provisions (Attachment D) at the time monitoring reports are submitted.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website at http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned or unplanned service interruption for electronic submittal. SMRs must be signed and certified as required by section V of the Standards Provisions (Attachment D). The Discharger shall maintain sufficient staffing and resources to ensure it submits SMRs that are complete and timely. This includes provision for training and supervision of individuals on how to prepare and submit SMRs.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under section III. The Discharger shall submit SMRs including the results of all

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

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

Table E-3. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following month of sampling.
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	First day of second calendar month following 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 1 August 1 November 1 February 1
Annual 2/Five Years	Closest of January 1 following (or on) permit effective date	January 1 through December 31	February 1

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

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

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the reported ML, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

- c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected,” or ND.

- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. **Compliance Determination.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and in Attachment A of this Order. For purposes of reporting and administrative enforcement by the San Diego Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML.
6. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
7. The Discharger shall submit SMRs in accordance with the following requirements:
 - a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
 - c. The Discharger shall add all violations of the waste discharge requirements in CIWQS under the "Violations" tab.

C. Discharge Monitoring Reports (DMRs)

The DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports (eSMR) module eSMR 2.5 or any upgraded version. Electronic DMRs submittal shall be in addition to electronic SMR submittal. Information about electronic DMRs submittal is available at the

DMR website at:

http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

D. Other Reports

The following reports are required under Special Provisions (section VI.A of this Order), section III of this MRP, and the California Code of Regulations (CCR). The reports shall be submitted to the San Diego Water Board using the State Water Board’s CIWQS program website, unless otherwise noted. The reports must be signed and certified as required by section V of the Standards Provisions (Attachment D). The CIWQS website will provide additional information for SMR submittal in the event of a planned or unplanned service interruption for electronic submittal.

Table E-4. Other Reports

Report	Location of requirement	Due Date
ROWD (for reissuance)	Table 3 and Section VI.A.2.b	No later than 180 days before the Order expiration date ¹
Initial Investigation TRE Work Plan	Section III.C.6 of this MRP	Within 90 days of the effective date of this Order

¹ Submit in person or by mail to the San Diego Water Board office (2375 Northside Drive, Suite 100, San Diego, CA 92108) or by email at SanDiego@waterboards.ca.gov.

ATTACHMENT F – FACT SHEET

CONTENTS

- I. Permit Information F-3
- II. Facility Description F-4
 - A. Description of Wastewater and Biosolids Treatment and Controls F-4
 - B. Discharge Points and Receiving Waters F-5
 - C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data F-7
 - D. Compliance Summary F-7
 - E. Planned Changes F-7
- III. Applicable Plans, Policies, and Regulations F-7
 - A. Legal Authorities F-7
 - B. California Environmental Quality Act (CEQA) F-8
 - C. State and Federal Laws, Regulations, Policies, and Plans F-8
 - D. Impaired Water Bodies on the CWA section 303(d) List F-9
 - E. Other Plans, Policies, and Regulations – Not Applicable F-10
- IV. Rationale for Effluent Limitations and Discharge Specifications F-10
 - A. Discharge Prohibitions F-10
 - B. Technology-Based Effluent Limitations (TBELs) F-10
 - 1. Scope and Authority F-10
 - 2. Applicable Technology-Based Effluent Limitations F-11
 - C. Water Quality-Based Effluent Limitations (WQBELs) F-12
 - 1. Scope and Authority F-12
 - 2. Applicable Beneficial Uses and Water Quality Criteria and Objectives F-13
 - 3. Determining the Need for WQBELs F-13
 - 4. WQBEL Calculations F-17
 - 5. Whole Effluent Toxicity (WET) F-21
 - D. Final Effluent Limitation Considerations F-24
 - 1. Anti-Backsliding Requirements F-24
 - 2. Antidegradation Policies F-24
 - 3. Stringency of Requirements for Individual Pollutants F-25
 - E. Interim Effluent Limitations – Not Applicable F-25
 - F. Land Discharge Specifications – Not Applicable F-25
 - G. Recycling Specifications – Not Applicable F-25
- V. Rationale for Receiving Water Limitations F-25
- VI. Rationale for Provisions F-26
 - A. Standard Provisions F-26
 - B. Special Provisions F-26
 - 1. Reopener Provisions F-26
 - 2. Special Studies, Technical Reports, and Additional Monitoring Requirements – Not Applicable F-26
 - 3. Best Management Practices and Pollution Prevention – Not Applicable F-26
 - 4. Construction, Operation, and Maintenance Specifications F-26
 - 5. Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable F-26
 - 6. Other Special Provisions – Not Applicable F-26
 - 7. Compliance Schedules – Not Applicable F-26
- VII. Rationale for Monitoring and Reporting Requirements F-26
 - A. Core Monitoring Requirements F-27
 - B. Receiving Water Monitoring F-29
 - C. Regional Monitoring Requirements F-29

- 1. Kelp Bed Canopy Monitoring Requirements F-29
- 2. Southern California Bight Regional Monitoring Program Participation Requirements F-30
- D. Special Studies Requirements – NOT APPLICABLE..... F-30
- VIII. Public Participation..... F-30
 - A. Notification of Interested Parties F-30
 - B. Written Comments F-31
 - C. Public Hearing F-31
 - D. Reconsideration of Waste Discharge Requirements F-31
 - E. Information and Copying F-31
 - F. Register of Interested Persons..... F-32
 - G. Additional Information F-32

TABLES

- Table F-1. Facility Information F-3
- Table F-2. Historic Effluent Limitations and Monitoring Data at EFF-001¹..... F-7
- Table F-3. Basin Plan Beneficial Uses..... F-8
- Table F-4. Ocean Plan Beneficial Uses F-8
- Table F-5. Summary of TBELs Based on Table 2 of the Ocean Plan F-12
- Table F-6. RPA Results Summary¹ F-15
- Table F-7. Pollutants Having Background Concentrations F-17
- Table F-8. Example Parameter Water Quality Objectives F-18
- Table F-9. Summary of WQBELs at Monitoring Location EFF-001 F-18
- Table F-10. Summary of Performance Goals at Monitoring Location EFF-001¹..... F-19

ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	9 000001103
Discharger	Genentech, Inc.
Name of Facility	Genentech, Inc.
Facility Address	One Antibody Way Oceanside, CA 92056 San Diego County
Facility Contact, Title and Phone	Gary Merrill, Senior Environmental Manager, (760) 231-2427
Authorized Person to Sign and Submit Reports	Nazeli Dertsakian, Vice President, General Manager, (760) 231-2440
Mailing Address	Same as facility address
Billing Address	Same as facility address
Type of Facility	Biologics manufacturing facility (SIC Code 2836)
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	B
Pretreatment Program	N/A
Recycling Requirements	N/A
Facility Permitted Flow	0.155 million gallons per day (MGD)
Facility Design Flow	0.155 MGD
Watershed	Pacific Ocean
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

- A.** Genentech, Inc. (Discharger) is the owner and operator of the Genentech, Inc. facility at One Antibody Way, Oceanside, CA 92056 (Facility), a biologics manufacturing facility.

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 waste brine to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R9-2014-0004 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0109193 adopted on February 12,

2014 and expired on April 1, 2019. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

- C. The Discharger filed a report of waste discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit on September 26, 2018. The application was deemed complete on October 24, 2018. The San Diego Water Board conducted a site visit on March 28, 2019, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.
- D. Regulations at title 40 of the Code of Federal Regulations (40 CFR) section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations (CCR), title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Facility is a mammalian cell culture facility that manufactures, purifies, formulates, and bulk fills mammalian cell culture derived proteins. The site's product and development programs address a variety of medical needs in the areas of oncology, neurology, dermatology, and rheumatology.

A. Description of Wastewater and Biosolids Treatment and Controls

All wastewater produced by the biologics manufacturing processes at the Facility (including cell culture production and harvesting, recovery and purification, and formulation) will be discharged to the City of Oceanside's (City's) sanitary sewer system and thus is not regulated by this Order. The Facility discharges up to 0.155 MGD of combined waste streams associated with the following processes and activities to the Oceanside Ocean Outfall (OOO):

1. Primary City Water Treatment

The sources of wastewater generated from the primary City water treatment system include backwashing and rinsing of the Triplex multimedia filter (MMF) and Triplex softener unit serving the primary City water treatment train. Wastewater is also generated from the regeneration of the softener resin with a concentrated brine solution. A total of approximately 4,500-10,000 gallons per day (GPD) of wastewater is generated from the backwashing and rinsing of the MMF. A total of approximately 14,000-28,000 GPD of wastewater is generated from the Triplex softener unit backwashing, softener regeneration, and rinsing processes. The total dissolved solids (TDS) found in the wastewater includes high levels of sodium, calcium, magnesium, chlorides, and sulfates.

2. Pretreatment of Water for Injection

The sources of wastewater generated from the Water for Injection (WFI) pretreatment system include backwashing and rinsing of the carbon filter and softener units serving the WFI pretreatment train and from the regeneration of the softener resin with a concentrated brine solution. The total wastewater flow from the WFI pretreatment process is 10,000-24,000 GPD. The pollutants contained in the wastewater generated from the WFI pretreatment system are similar to those found in the wastewater from the primary City water treatment system. The pollutants include sodium, calcium, magnesium, and other salts.

Another waste stream generated from the WFI pretreatment system is from the draining of clean steam generators serving the WFI system. A small volume of water (1,400-6000 GPD) is drained from the steam generators during periodic testing and

maintenance activities of the units. The flow is essentially ultra-clean WFI water with low TDS and total suspended solids (TSS) levels and non-detectable toxic priority pollutants. This water is combined with the wastewater flows generated from the WFI pretreatment streams.

3. Vapor Compression Stills Blowdown

The WFI vapor compression stills at the Facility are subject to daily blowdown for maintenance purposes. A total of 30,000-63,000 GPD of blowdown water is released from the vapor compression stills. TDS in the blowdown ranges from 2,000 to 3,000 mg/L, mainly consisting of calcium, magnesium, sodium salts, chlorides, sulfates, carbonates, and silica.

4. Water WFI Process Loop Discharge

The WFI storage tank has a process loop that discharges 10,000-24,000 GPD of wastewater.

The combined waste streams gravity drains to a 3,000-gallon lift station. This lift station has four different liquid sensors that control the system. At 1,200 gallons, the wastewater is pumped into one of two 20,000-gallon holding tanks. In these holding tanks, equalization is achieved via comingling.

When one of the two 20,000-gallon holding tanks reaches 15,000 gallons, a valve is closed and the other 20,000-gallon holding tank begins to fill. Each tank has a mixer. The mixers move the wastewater through the pH adjustment skid where the pH is monitored. As the wastewater is routed to the pH adjustment skid, sensors assess the pH. If the wastewater is outside the range of 6.0 to 9.0 standard units, phosphoric acid or sodium hydroxide is added to adjust the pH. Once the pH has been adjusted, the wastewater is re-routed back to the 20,000-gallon holding tank for further comingling. The pH is continuously checked.

Once the pH is within the acceptable range, a valve is opened, and the combined waste stream is discharged. The waste stream is pumped, in batches, through a stainless filter housing and filter media. From the filter housing, the wastewater is routed to the City's ten-inch-diameter land outfall (Brine Line). Batch discharges occur on average two to three times per day. Wastewater flow and temperature are monitored prior to final discharge to the Brine Line.

B. Discharge Points and Receiving Waters

The waste brine from the Facility discharges to the ten-inch-diameter land outfall (Brine Line), where it commingles with the waste brine from the City's Mission Basin Groundwater Purification Facility (MBGPF).¹ The Brine Line discharges to the San Luis Rey Land Outfall, where the waste brine commingles with the chlorinated secondary-treated wastewater from the City's San Luis Rey Water Reclamation Facility (SLRWRF). The San Luis Rey Land Outfall consists of a 34,000-foot-long, 24-inch-/36-inch-diameter pipeline that runs from the City's SLRWRF Effluent Pump Station to the City's Combined Meter at the City's La Salina Wastewater Treatment Plant (LSWTP). At the Combined Meter, the effluent from the Facility, the MBGPF, and the SLRWRF commingles with the secondary-treated wastewater from the LSWTP. From the Combined Meter, the effluent from the Facility, the MBGPF, the SLRWRF,

¹ Wastewater and waste brine from the City is regulated by separate WDRs, Order No. R9-XXXX-XXXX, NPDES No. CA0107433, Waste Discharge Requirements for the City Of Oceanside, San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharges to the Pacific Ocean via the Oceanside Ocean Outfall.

and the LSWTP flows through the LSWTP Land Outfall (400-foot-long, X-inch-diameter pipeline). The tertiary-treated wastewater from the Fallbrook Public Utility District's Fallbrook Water Reclamation Plant (Fallbrook WRP) discharges to the LSWTP Land Outfall after the Combined Meter and before the OOO, commingling with the effluent from the Facility, the MBGPF, the SLRWRF, and the LSWTP.² The LSWTP Land Outfall discharges to the start of the OOO, just north of the mouth of the Loma Alta Creek and east of South Pacific Street. After the start of the OOO, the effluent from the Facility, the MBGPF, the SLRWRF, the LSWTP, and the Fallbrook WRP commingles with the secondary-treated wastewater from the Marine Corps Base, Camp Pendleton's (MCBCP's) Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant at Haybarn Canyon on South Pacific Street just north of the mouth of the Loma Alta Creek.³

The City owns and operates the Brine Line, the San Luis Rey Land Outfall, the LSWTP Land Outfall, and the OOO. The OOO starts just north of the mouth of the Loma Alta Creek and east of South Pacific Street. The OOO extends southwesterly approximately 8,850 feet offshore to a depth of approximately 100 feet. The OOO is a steel pipe with a 1-inch-thick cement mortar interior lining and 2.75-inch-thick cement mortar outer jacket. In the letter dated May 1, 2014, the City reported that the average effective internal diameter of the OOO, considering the muck and sediment buildup, is 34.3 inches. The OOO terminates with a 230-foot diffuser collinear with the rest of the outfall and extends to a depth of approximately 108 feet. The diffuser has fourteen 5-inch-diameter ports and ten 4-inch-diameter ports. The terminus of the diffuser is located at Latitude 33° 09' 46" North, Longitude 117° 23' 29" W.

As the owner/operator, the City has the ability to control discharges to the Brine Line, the San Luis Rey Land Outfall, the LSWTP Land Outfall, and the OOO. The City has a contract with the Fallbrook Public Utility District to discharge an average annual flowrate of 2.4 MGD of wastewater from the Fallbrook WRP through the OOO, subject to WDRs contained in Order No. R9-XXXX-XXXX (NPDES No. CA0108031), *Waste Discharge Requirements for the Fallbrook Public Utility District Wastewater Treatment Plant No. 1 Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*. The City has a contract with the MCBCP to discharge up to 3.6 MGD of wastewater from the Southern Regional Tertiary Treatment Plant and brine waste from the Advanced Water Treatment Plant at Haybarn Canyon to the Pacific Ocean through the OOO, subject to WDRs contained in Order No. R9-XXXX-XXXX (NPDES Permit No. CA0109347) *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant, Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*. As of 2008, the City has a contract with Discharger for the discharge of up to 0.85 MGD of waste brine to the OOO. The City discharges from the MBGPF, the SLRWRF, and the LSWTP through the OOO subject to the WDRs contained in Order No. R9-XXXX-XXXX, as amended by Order Nos. R9-2012-0042, R9-2012-0060, and R9-2014-0018 (NPDES Permit No. CA0107433) *Waste Discharge Requirements for the City Of Oceanside, San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharges to the Pacific Ocean via the Oceanside Ocean Outfall*. In the letter dated May 1,

² Effluent from the Fallbrook Water Reclamation Plant is regulated by separate WDRs, Order No. R9-XXXX-XXXX, NPDES No. CA0108031, *Waste Discharge Requirements for the Fallbrook Public Utility District Wastewater Treatment Plant No. 1 Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*.

³ Wastewater and waste brine from the Southern Regional Tertiary Treatment Plant and the Advanced Water Treatment Plant at Haybarn Canyon is regulated by separate WDRs, Order No. R9-XXXX-XXXX, NPDES No. CA0109347, *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant, Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*.

2014, the City reported that, due to the muck, sediment, and biological growth buildup in the OOO resulting in high friction losses in the OOO, the capacity of the OOO is 41.5 MGD.

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

Effluent limitations contained in the Order No. R9-2014-0004 for discharges from the Facility and representative monitoring data obtained at Monitoring Location EFF-001 is as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data at EFF-001¹

Parameter	Units	Effluent Limitation ²			Monitoring Data (From November 2014 To April 2019)		
		Average Monthly	Average Weekly	Instantaneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Instantaneous Maximum
Total Suspended Solids (TSS)	milligram per liter (mg/L)	60	--	--	5.2	--	--
	pound per day (lbs/day)	78	--	--	3.4 ³	--	--
pH	standard units	--	--	6.0 – 9.0 ⁴	--	--	6.6-8.4 ⁴
Oil and Grease	mg/L	25	40	75	1.7	1.7	1.7
	lbs/day	32	52	97	0.71 ⁵	0.71 ⁵	0.71 ⁵
Settleable Solids	milliliter per liter (ml/L)	1.0	1.5	3.0	<0.10	<0.10	<0.10
Turbidity	nephelometric turbidity unit (NTU)	75	100	225	11	11	11

¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

² Mass emission rate (MER) effluent limitations are based on the maximum anticipated flow rate for the Facility (0.155 MGD).

³ The MER was not reported. This value was calculated based on the November 18, 2014 data reported by the Discharger (total suspended solids reported as 5.2 mg/L and flow reported as 0.078133 MGD).

⁴ Minimum and maximum value.

⁵ The MER was not reported. This value was calculated based on the July 31, 2014 data reported by the Discharger (oil and grease reported as 1.7 mg/L and flow reported as 0.050206 MGD).

D. Compliance Summary

No violations were reported by the Discharger during the term of Order No. R9-2014-0004.

E. Planned Changes

As noted in the ROWD, the Discharger currently has no planned changes to the Facility during the term of this Order.

However, the City is converting five miles of the Brine Line to non-potable use, constructing 4400 feet of new non-potable pipeline, and routing the waste brine from the MBGPF and the Facility to the outfall via alternative pipes.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (Water Code) (commencing with section 13260). This Order is also issued pursuant to

section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U. S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. California Environmental Quality Act (CEQA)

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

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

- 1. Water Quality Control Plan.** The San Diego Water Board adopted a *Water Quality Control Plan for the San Diego Basin* (Basin Plan) on September 8, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean and other receiving waters addressed through the plan. Subsequent revisions to the Basin Plan have also been adopted by the San Diego Water Board and approved by the State Water Board. Beneficial uses applicable to the Pacific Ocean specified in the Basin Plan are summarized in Table F-3:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	Industrial service supply (IND); navigation (NAV); water contact recreation (REC-1); non-contact recreation (REC-2); commercial and sport fishing (COMM); preservation of biological habitats of special significance (BIOL); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); marine habitat (MAR); aquaculture (AQUA); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); and shellfish harvesting (SHELL).

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

- 2. California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, 2015, and 2018. The State Water Board adopted the latest amendment on August 7, 2018, the USEPA approved the amendments on March 22, 2019, and it became effective on March 22, 2019. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in Table F-4:

Table F-4. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	IND; REC-1; REC-2, including aesthetic enjoyment; NAV; COMM; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; MAR; fish migration; fish spawning; and SHELL.

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.

3. **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 (40 CFR section 131.21, 65 Fed. Reg. 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.
4. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The San Diego Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.
5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These Anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
6. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limits, and other requirements to protect the beneficial uses of waters of the State, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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

In August 2018, USEPA approved the list of impaired water bodies, prepared by the State Water Board pursuant to CWA section 303(d), which are not expected to meet applicable water quality standards after implementation of technology-based effluent limitations (TBELs) for point sources. The 303(d) list for waters in the Pacific Ocean in the vicinity of the OOO include:

1. 0.3 miles of Pacific Ocean shoreline, San Luis Rey Hydrologic Unit (HU), at San Luis Rey River mouth for indicator bacteria (enterococcus for REC-1 and total coliform for SHELL);
2. 0.3 miles of Pacific Ocean shoreline, San Luis Rey HU, Oceanside Pier for trash;

3. 0.3 miles of Pacific Ocean shoreline, Loma Alta hydrologic subarea (HSA), at Loma Alta Creek mouth for indicator bacteria and trash

Currently, there is no effective total maximum daily load (TMDL) to address the specific impairments listed above. The San Diego Water Board is addressing the water quality impairments and will develop appropriate regulatory actions for each impairing pollutant in each listed waterbody. These actions may include the adoption of a TMDL.

E. Other Plans, Polices, and Regulations – Not Applicable

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 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.

A. Discharge Prohibitions

This Order retains the discharge prohibitions from Order No. R9-2014-0004, with some exceptions as described below. Discharges from the Facility to surface waters in violation of prohibitions contained in this Order are violations of the CWA and therefore are subject to third party lawsuits. Discharges from the Facility to land in violation of prohibitions contained in this Order are violations of the Water Code and are not subject to third party lawsuits under the CWA because the Water Code does not contain provisions allowing third party lawsuits.

1. Order No. R9-2014-0004 contained Discharge Prohibition III.A, which clearly define what types of discharges are prohibited. This prohibition has been retained in this Order as Discharge Prohibition III.A.
2. Order No. R9-2014-0004 contained Discharge Prohibitions III.B and III.C, which required compliance with the discharge prohibitions of the Ocean Plan and Basin Plan, respectively. These prohibitions have been retained in this Order as Discharge Prohibitions III.B and III.C.
3. Order No. R9-2014-0004 contained Discharge Prohibition III.D, which prohibits the discharge of wastes in excess of 0.155 MGD from the Facility. Because the flow prohibition is now included as an effluent limitation, this prohibition is not retained in section III of this Order.

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on best professional judgement (BPJ) in accordance with 40 CFR section 125.3.

The CWA requires that TBELs be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including biological oxygen demand (BOD), TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly-owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of BPJ to derive TBELs on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the San Diego Water Board must consider specific factors outlined in 40 CFR section 125.3.

In compliance with 40 CFR sections 122.45(f)(1) and 423.15, mass-based limitations have also been established in this Order for conventional, nonconventional, and toxic pollutants, with some exceptions. Section 122.45(f)(2) of 40 CFR allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass-based limitations provided in 40 CFR section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature.

Mass-based effluent limitations were calculated using the following equation:

$$\text{lbs/day} = \text{flow (MGD)} \times \text{pollutant concentration (mg/L)} \times 8.34$$

2. Applicable Technology-Based Effluent Limitations

- a. **Ocean Plan.** The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. Therefore, the discharge of wastewater to the Pacific Ocean at Discharge Point No. 001 is subject to the Ocean Plan.

The Ocean Plan establishes water quality objectives, general requirements for management of waste discharged to the ocean, effluent quality requirements for waste discharges, discharge prohibitions, and general provisions. Further, Table 2 of the Ocean Plan establishes TBELs for POTWs and industrial discharges for which effluent limitation guidelines have not been established. Because the Facility does not discharge process wastewater as defined by the federal regulations at 40 CFR sections 122.2 and 439.1(m)(2), it is not covered under the ELGs established

at 40 CFR part 439 (*Pharmaceutical Manufacturing Point Source Category*). Therefore, Table 2 of the Ocean Plan is applicable to the discharge. Consistent with Order No. R9-2014-0004, numeric effluent limitations based on Table 2 of the Ocean Plan are being established in this Order for the Facility.

Table 2 of the Ocean Plan requires dischargers to, as a monthly average, achieve a percent removal of 75 percent for suspended solids from the influent stream before discharging wastewater to the Pacific Ocean, except that the effluent limitation to be met shall not be less than 60 mg/L. The waste brine generated at the Facility is considered an industrial discharge and is subject to Table 2 limits prior to commingling with other discharges to the OOO. The TBELs from the Ocean Plan are summarized in Table F-5 below:

Table F-5. Summary of TBELs Based on Table 2 of the Ocean Plan

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
TSS	mg/L	60 ¹	--	--
	% Removal	1	--	--
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	Within the limits of 6.0 to 9.0 at all times		

¹ Table 2 of the Ocean Plan requires that the Discharger shall, as a monthly average, remove 75 percent of suspended solids from the influent stream before discharging wastewater to the Pacific Ocean, except that the effluent limitation to be met shall not be less than 60 mg/L.

- b. **Effluent Flow.** This Order carries over the daily maximum effluent limitation for flow of 0.155 MGD from Order Nos. R9-2008-0082 and R9-2014-0004. The maximum flow rate is based on the Discharger’s description of the discharge.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. 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 40 CFR 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 Ocean Plan, and achieve applicable water quality objectives and

criteria 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 Ocean Plan designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives for all waters.

- a. **Basin Plan.** The beneficial uses specified in the Basin Plan applicable to the Pacific Ocean are summarized in section III.C.1 of this Fact Sheet.

The Basin Plan water quality objective for dissolved oxygen applicable to ocean waters is stated as follows: “The dissolved oxygen concentration in ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.”

The Basin Plan states, “The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally.”

- b. **Ocean Plan.** The beneficial uses specified in the Ocean Plan for the Pacific Ocean are summarized in section III.C.2 of this Fact Sheet. The Ocean Plan also includes water quality objectives for the ocean receiving water for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity.

Table 1 of the Ocean Plan includes the following water quality objectives for toxic pollutants and whole effluent toxicity:

- i. Six-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total chlorine residual and chronic toxicity, for the protection of marine aquatic life.
- ii. 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health. These have been applied as average monthly effluent limitations (AMELs).
- iii. 30-day average objectives for 42 carcinogenic chemicals for the protection of human health. These have been applied as AMELs.
- iv. Daily maximum objectives for acute and chronic toxicity.

3. Determining the Need for WQBELs

The San Diego Water Board evaluated the need for effluent limitations for non-conventional and toxic pollutant parameters, based on water quality objectives in Table 1 of the Ocean Plan. The evaluation was performed in accordance with 40 CFR section 122.44(d) and guidance for statistically determining the “reasonable potential” for a discharged pollutant to exceed an objective, as outlined in the revised *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-90-001, 1991) and the Ocean Plan Reasonable Potential Analysis (RPA) Amendment that was adopted by the State Water Board on April 21, 2005. The statistical approach combines knowledge of effluent variability (as estimated by a coefficient of variation) with the uncertainty due to a limited amount of effluent data to estimate a maximum effluent value at a high level of confidence. This estimated maximum effluent value is based on a lognormal distribution of daily effluent values. Projected receiving water values (based on the estimated maximum effluent value or the reported maximum effluent value and minimum probably initial dilution) can then be compared to the appropriate objective to determine

potential for an exceedance of that objective and the need for an effluent limitation. According to the Ocean Plan amendment, the RPA can yield three endpoints: 1) Endpoint 1, an effluent limitation is required and monitoring is required; 2) Endpoint 2, an effluent limitation is not required and the San Diego Water Board may require monitoring; and 3) Endpoint 3, the RPA is inconclusive, monitoring is required, and an existing effluent limitation may be retained or a permit reopener clause may be included to allow inclusion of an effluent limitation if future monitoring warrants the inclusion. Endpoint 3 is typically the result when there are fewer than 16 data points and all are censored data (i.e., below quantitation or method detection levels for an analytical procedure).

The implementation provisions for Table 1 of the Ocean Plan specify that the minimum initial dilution (D_m) is the lowest average initial dilution within any single month of the year. Dilution estimates are to be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents, of sufficient strength to influence the initial dilution process, flow across the discharge structure.

In 2005, the State Water Board had determined the D_m ratio for the OOO to be 87 parts seawater to 1 part wastewater (87:1) for the OOO. This determination was based on a total flow rate of 29.055 MGD from the Facility; the City; the Marine Corps Base, Camp Pendleton; and the Fallbrook Public Utility District. In the ROWD, the Discharger did not note any significant changes that would alter the previously determined dilution characteristics. Therefore, the previous D_m ratio of 87 to 1 will be retained in this Order and applied to WQBELs established herein.

Conventional pollutants were not considered as part of the RPA. TBELs for these pollutants are included in this Order as described in section IV.B of this Fact Sheet.

This Order does not include effluent limitations for bacterial indicators for the following reasons:

- The discharge point (Discharge Point No. 001) is located at the terminus of the Oceanside Ocean Outfall, located 8,800 feet offshore at a depth of 100 feet.
- The dilution factor is 87.
- The San Diego Water Board is not aware of any shellfish harvesting within the zone of initial dilution of the OOO.
- There are no kelp beds within the zone of initial dilution of the OOO.
- The waste brine from the Facility is not expected to have significant concentrations of bacterial indicators.

Using the RPsCalc 2.0 software tool developed by the State Water Board for conducting reasonable potential analyses, the San Diego Water Board has conducted the RPA for the constituents listed in Table F-6 below. For constituents that do not display reasonable potential, this Order includes desirable maximum effluent concentrations which were derived using effluent limitation determination procedures described below and are referred to in this Order as “performance goals.” A narrative limit statement to comply with all Ocean Plan objectives requirements is provided for those parameters not displaying reasonable potential. The Discharger is required to monitor for these constituents as stated in the Monitoring and Reporting Program (MRP, Attachment E) of this Order in order to gather data for use in RPAs for future permit reissuances.

Effluent data provided in the Discharger's self monitoring reports for the Facility from November 2014 through October 2017 were used in the RPA. A Dm ratio of 87:1 was considered in this evaluation.

A summary of the RPA results is provided below:

Table F-6. RPA Results Summary¹

Parameter	Units	N ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Arsenic, Total Recoverable	micrograms per liter (µg/L)	4	<0.0089	8 ⁶	3 ⁷	3
Cadmium, Total Recoverable	µg/L	4	<2.0	1 ⁶	0	3
Chromium (VI), Total Recoverable	µg/L	4	0.5	2 ⁶	0	3
Copper, Total Recoverable	µg/L	4	24	3 ⁶	2 ⁷	3
Lead, Total Recoverable	µg/L	4	<2.5	2 ⁶	0	3
Mercury, Total Recoverable	µg/L	4	<0.0001	0.04 ⁶	0.0005 ⁷	3
Nickel, Total Recoverable	µg/L	4	<5.0	5 ⁶	0	3
Selenium, Total Recoverable	µg/L	4	<6.1	15 ⁶	0	3
Silver, Total Recoverable	µg/L	4	<5.0	0.7 ⁶	0.16 ⁷	3
Zinc, Total Recoverable	µg/L	4	<10	20 ⁶	8 ⁷	3
Cyanide, Total	µg/L	4	<13	1 ⁶	0	3
Total Chlorine Residual	µg/L	4	240	2 ⁶	0	1
Ammonia (expressed as nitrogen)	µg/L	4	1,700	600 ⁶	0	1
Acute Toxicity	TUa	-- ¹¹	--	0.3 ⁸	0	3
Chronic Toxicity	TUc	4	42	1 ⁸	0	3
Phenolic Compounds ¹	µg/L	4	<2.0	30 ⁶	0	3
Chlorinated Phenolics ¹	µg/L	4	<0.98	1 ⁶	0	3
Endosulfan ¹	µg/L	4	<0.0028	0.009 ⁶	0	3
Endrin	µg/L	4	<0.0019	0.002 ⁶	0	3
HCH ¹	µg/L	4	0.012	0.004 ⁶	0	3
Radioactivity	pCi/L	4	36.3	⁹	0	3
Acrolein	µg/L	4	<2.5	220 ¹⁰	0	3
Antimony, Total Recoverable	µg/L	4	<0.006	1,200 ¹⁰	0	3
Bis(2-chloroethoxyl) Methane	µg/L	4	<0.20	4.4 ¹⁰	0	3
Bis(2-chloroisopropyl) Ether	µg/L	4	<0.20	1,200 ¹⁰	0	3
Chlorobenzene	µg/L	4	<0.25	570 ¹⁰	0	3
Chromium (III), Total Recoverable	µg/L	4	2.5	190,000 ¹⁰	0	3
Di-n-butyl Phthalate	µg/L	4	<0.98	3,500 ¹⁰	0	3
Dichlorobenzenes ¹	µg/L	4	<0.25	5,100 ¹⁰	0	3
Diethyl Phthalate	µg/L	4	<0.49	33,000 ¹⁰	0	3
Dimethyl Phthalate	µg/L	4	<0.24	820,000 ¹⁰	0	3
4,6-dinitro-2-methylphenol	µg/L	4	<2.0	220 ¹⁰	0	3
2,4-dinitrophenol	µg/L	4	<2.0	4.0 ¹⁰	0	3
Ethylbenzene	µg/L	4	<0.25	4,100 ¹⁰	0	3
Fluoranthene	µg/L	4	<0.20	15 ¹⁰	0	3
Hexachlorocyclopentadiene	µg/L	4	<2.0	58 ¹⁰	0	3
Nitrobenzene	µg/L	4	<0.49	4.9 ¹⁰	0	3

Parameter	Units	N ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Thallium, Total Recoverable	µg/L	4	<0.008	2 ¹⁰	0	3
Toluene	µg/L	4	<0.25	85,000 ¹⁰	0	3
Tributyltin	µg/L	4	<0.043	0.0014 ¹⁰	0	3
1,1,1-trichloroethane	µg/L	4	<0.25	540,000 ¹⁰	0	3
Acrylonitrile	µg/L	4	<1.0	0.10 ¹⁰	0	3
Aldrin	µg/L	4	<0.0014	0.000022 ¹⁰	0	3
Benzene	µg/L	4	<0.25	5.9 ¹⁰	0	3
Benzidine	µg/L	4	<4.9	0.000069 ¹⁰	0	3
Beryllium	µg/L	4	<0.001	0.033 ¹⁰	0	3
Bis(2-chloroethyl) Ether	µg/L	4	<0.2	0.045 ¹⁰	0	3
Bis(2-ethylhexyl) Phthalate	µg/L	4	<2.0	3.5 ¹⁰	0	3
Carbon Tetrachloride	µg/L	4	<0.25	0.90 ¹⁰	0	3
Chlordane ¹	µg/L	4	<0.076	0.000023 ¹⁰	0	3
Chlorodibromomethane	µg/L	4	3.7	8.6 ¹⁰	0	2
Chloroform	µg/L	4	4.1	130 ¹⁰	0	2
DDT ¹	µg/L	4	<0.0019	0.00017 ¹⁰	0	3
1,4-dichlorobenzene	µg/L	4	<0.23	18 ¹⁰	0	3
3,3-dichlorobenzidine	µg/L	4	<2.0	0.0081 ¹⁰	0	3
1,2-dichloroethane	µg/L	4	<0.25	28 ¹⁰	0	3
1,1-dichloroethylene	µg/L	4	<0.25	0.9 ¹⁰	0	3
Dichlorobromomethane	µg/L	4	3.8	6.2 ¹⁰	0	2
Dichloromethane (Methylene Chloride)	µg/L	4	<0.88	450 ¹⁰	0	3
1,3-dichloropropene	µg/L	4	<0.25	8.9 ¹⁰	0	3
Dieldrin	µg/L	4	<0.0019	0.00004 ¹⁰	0	3
2,4-dinitrotoluene	µg/L	4	<2.0	2.6 ¹⁰	0	3
1,2-diphenylhydrazine	µg/L	4	<0.49	0.16 ¹⁰	0	3
Halomethanes ¹	µg/L	4	1.7	130 ¹⁰	0	3
Heptachlor	µg/L	4	<0.0028	0.00005 ¹⁰	0	3
Heptachlor Epoxide	µg/L	4	<0.0024	0.00002 ¹⁰	0	3
Hexachlorobenzene	µg/L	4	<0.49	0.00021 ¹⁰	0	3
Hexachlorobutadiene	µg/L	4	<0.49	14 ¹⁰	0	3
Hexachloroethane	µg/L	4	<0.49	2.5 ¹⁰	0	3
Isophorone	µg/L	4	<0.49	730 ¹⁰	0	3
N-nitrosodimethylamine	µg/L	4	<0.49	7.3 ¹⁰	0	3
N-nitrosodi-N-propylamine	µg/L	4	<0.98	0.38 ¹⁰	0	3
N-nitrosodiphenylamine	µg/L	4	<0.49	2.5 ¹⁰	0	3
PAHs ¹	µg/L	4	<0.095	0.0088 ¹⁰	0	3
PCBs ¹	µg/L	4	<0.24	0.000019 ¹⁰	0	3
TCDD equivalents ¹	µg/L	4	<0.0000003	0.0000000039 ¹⁰	0	3
1,1,2,2-tetrachloroethane	µg/L	4	<0.25	2.3 ¹⁰	0	3
Tetrachloroethylene	µg/L	4	<0.25	2.0 ¹⁰	0	3
Toxaphene	µg/L	4	<0.24	0.00021 ¹⁰	0	3
Trichloroethylene	µg/L	4	<0.25	27 ¹⁰	0	3
1,1,2-trichloroethane	µg/L	4	<0.25	9.4 ¹⁰	0	3
2,4,6-trichlorophenol	µg/L	4	<0.49	0.29 ¹⁰	0	3
Vinyl Chloride	µg/L	4	<0.25	36 ¹⁰	0	3

¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

² Number of data points available for the RPA.

³ If there is a detected value, the highest reported value is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table.

- ⁴ Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore, it is possible for a parameter with a MEC in exceedance of the most stringent criteria not to present a reasonable potential (i.e. Endpoint 2).
- ⁵ End Point 1 – RP determined, limit required, monitoring required.
 End Point 2 – Discharger determined not to have RP, monitoring may be established.
 End Point 3 – RPA was inconclusive, carry over previous limitations if applicable, and establish monitoring.
- ⁶ Based on the Six-Month Median in the Table 1 of the Ocean Plan.
- ⁷ Background concentrations contained in Table 3 of the Ocean Plan.
- ⁸ Based on the Daily Maximum in Table 1 of the Ocean Plan.
- ⁹ Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR. Levels of radioactivity that exceed the applicable criteria are not expected in the discharge.
- ¹⁰ Based on 30-Day Average in Table 1 of the Ocean Plan.
- ¹¹ Order No. R9-2014-0004 did not require effluent monitoring for acute toxicity. Thus, no data is available for acute toxicity.

Parameters for which Endpoint 2 was concluded are determined not to have reasonable potential, thus it is inappropriate to establish effluent limitations for these parameters. For parameters for which Endpoint 3 was concluded, reasonable potential was inconclusive, and this Order retains the performance goals from Order No. R9-2014-0004.

Reasonable potential to cause or contribute to an exceedance of water quality objectives contained within the Ocean Plan (i.e., Endpoint 1) was determined for total chlorine residual and ammonia. Effluent limitations for these parameters (based on the initial dilution of 87:1, as discussed below) have been established in this Order.

The MRP (Attachment E) is designed to obtain additional information for these constituents to determine if reasonable potential exists for these constituents in future permit renewals and/or updates.

4. WQBEL Calculations

- a. From the Table 1 water quality objectives of the Ocean Plan, effluent limitations and performance goals 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 (µg/L)
- C_o = the water quality objective to be met at the completion of initial dilution (µg/L)
- C_s = background seawater concentration
- D_m = minimum probable initial dilution expressed as parts seawater per part wastewater

- b. Initial dilution (D_m) has been determined to be 87 to 1 by the San Diego Water Board through the application of USEPA’s dilution model, Visual Plumes.
- c. Table 3 of the Ocean Plan establishes background concentrations for some pollutants to be used when determining reasonable potential (represented as “ C_s ”). In accordance with Table 1 implementing procedures, C_s equals zero for all pollutants not established in Table 3. The background concentrations provided in Table 3 of the Ocean Plan are summarized in Table F-7 below:

Table F-7. Pollutants Having Background Concentrations

Pollutant	Background Seawater Concentration
Arsenic, Total Recoverable	3 µg/L
Copper, Total Recoverable	2 µg/L
Mercury, Total Recoverable	0.0005 µg/L
Silver, Total Recoverable	0.16 µg/L

Pollutant	Background Seawater Concentration
Zinc, Total Recoverable	8 µg/L

- d. As an example, effluent limitations for total chlorine residual are determined as follows:

Water quality objectives from the Ocean Plan for total chlorine residual are:

Table F-8. Example Parameter Water Quality Objectives

Parameter	Units	Six-Month Median	Daily Maximum	Instantaneous Maximum
Total Chlorine Residual	µg/L	2	8	60

Using the equation, $C_e = C_o + D_m (C_o - C_s)$, effluent limitations/performance goals are calculated as follows.

Total Chlorine Residual:

$C_e = 2 + 87 (2 - 0) = 176$ (Six-Month Median)

$C_e = 8 + 87 (8 - 0) = 704$ (Daily Maximum)

$C_e = 60 + 87 (60 - 0) = 5,280$ (Instantaneous Maximum)

Based on the implementing procedures described above, effluent limitations and performance goals have been calculated for all parameters in Table 1 of the Ocean Plan and incorporated into this Order.

- e. Section 122.45(f)(1) of the 40 CFR requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR section 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. However, section III.C.4.j of the Ocean Plan requires that mass limitations be established for all parameters in Table 1 of the Ocean Plan. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g., CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations were calculated using the following equation:

$\text{lbs/day} = \text{permitted flow (MGD)} \times \text{pollutant concentration (mg/L)} \times 8.34$

- f. Based on the results of the RPA, a summary of the WQBELs established in this Order are provided in the table below:

Table F-9. Summary of WQBELs at Monitoring Location EFF-001

Parameter	Units	Effluent Limitations ^{1,2}		
		Six-Month Median	Maximum Daily	Instantaneous Maximum
Total Chlorine Residual	microgram per liter (µg/L)	1.76E+02	7.04E+02	5.28E+03
	lbs/day	2.3E-01	9.1E-01	6.83E+00
Ammonia (expressed as nitrogen)	µg/L	5.28E+04	2.11E+05	5.28E+05
	lbs/day	6.83E+01	2.73E+02	6.83E+02

¹ The mass emission rate (MER) limitation, in lbs/day, was calculated based on the following equation: $\text{MER (lbs/day)} = 8.34 \times Q \times C$, where Q is the permitted flow for the Facility (0.155 MGD) and C is the concentration (mg/L).

² Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1 x 10⁻² or 0.061, 6.1E+02 represents 6.1 x 10² or 610, and 6.1E+00 represents 6.1 x 10⁰ or 6.1.

g. A summary of the performance goals is provided in the table below.

Table F-10. Summary of Performance Goals at Monitoring Location EFF-001¹

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE					
Arsenic, Total Recoverable	microgram per liter (µg/L)	4.4E+02	--	2.6E+03	6.8E+03
Cadmium, Total Recoverable	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Chromium (VI), Total Recoverable ³	µg/L	1.8E+02	--	7.0E+02	1.8E+03
Copper, Total Recoverable	µg/L	9.0E+01	--	8.8E+02	2.5E+03
Lead, Total Recoverable	µg/L	1.8E+02	--	7.0E+02	1.8E+03
Mercury, Total Recoverable	µg/L	3.5E+00	--	1.4E+01	3.5E+01
Nickel, Total Recoverable	µg/L	4.4E+02	--	1.8E+03	4.4E+03
Selenium, Total Recoverable	µg/L	1.3E+03	--	5.3E+03	1.3E+04
Silver, Total Recoverable	µg/L	4.8E+01	--	2.3E+02	6.0E+02
Zinc, Total Recoverable	µg/L	1.1E+03	--	6.3E+03	1.7E+04
Cyanide, Total	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Chronic Toxicity ^{4,5}	"Pass"/"Fail"	--	--	"Pass"	--
Phenolic Compounds ¹ (non-chlorinated)	µg/L	2.6E+03	--	1.1E+04	2.6E+04
Chlorinated Phenolics ¹	µg/L	8.8E+01	--	3.5E+02	8.8E+02
Endosulfan ¹	µg/L	7.9E-01	--	1.6E+00	2.4E+00
Endrin	µg/L	1.8E-01	--	3.5E-01	5.3E-01
HCH (BHC) ¹	µg/L	3.5E-01	--	7.0E-01	1.1E+00
Radioactivity	picocuries per liter (pCi/L)	Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR, Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH - NONCARCINOGENS					
Acrolein	µg/L	--	1.9E+04	--	--
Antimony, Total Recoverable	µg/L	--	1.1E+05	--	--
Bis(2-chloroethoxy) Methane	µg/L	--	3.9E+02	--	--
Bis(2-chloroisopropyl) Ether	µg/L	--	1.1E+05	--	--
Chlorobenzene	µg/L	--	5.0E+04	--	--
Chromium (III), Total Recoverable ³	µg/L	--	1.7E+07	--	--
Di-n-butyl Phthalate	µg/L	--	3.1E+05	--	--
Dichlorobenzenes ¹	µg/L	--	4.5E+05	--	--
Diethyl Phthalate	µg/L	--	2.9E+06	--	--
Dimethyl Phthalate	µg/L	--	7.2E+07	--	--

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
4,6-dinitro-2-methylphenol	µg/L	--	1.9E+04	--	--
2,4-dinitrophenol	µg/L	--	3.5E+02	--	--
Ethylbenzene	µg/L	--	3.6E+05	--	--
Fluoranthene	µg/L	--	1.3E+03	--	--
Hexachlorocyclopentadiene	µg/L	--	5.1E+03	--	--
Nitrobenzene	µg/L	--	4.3E+02	--	--
Thallium, Total Recoverable	µg/L	--	1.8E+02	--	--
Toluene	µg/L	--	7.5E+06	--	--
Tributyltin	µg/L	--	1.2E-01	--	--
1,1,1-Trichloroethane	µg/L	--	4.8E+07	--	--
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH - CARCINOGENS					
Acrylonitrile	µg/L	--	8.8E+00	--	--
Aldrin	µg/L	--	1.9E-03	--	--
Benzene	µg/L	--	5.2E+02	--	--
Benzidine	µg/L	--	6.1E-03	--	--
Beryllium, Total Recoverable	µg/L	--	2.9E+00	--	--
Bis(2-chloroethyl) Ether	µg/L	--	4.0E+00	--	--
Bis(2-ethylhexyl) Phthalate	µg/L	--	3.1E+02	--	--
Carbon Tetrachloride	µg/L	--	7.9E+01	--	--
Chlordane ¹	µg/L	--	2.0E-03	--	--
Chlorodibromomethane	µg/L	--	7.6E+02	--	--
Chloroform	µg/L	--	1.1E+04	--	--
Dichlorodiphenyltrichloroethane (DDT) ¹	µg/L	--	1.5E-02	--	--
1,4-dichlorobenzene	µg/L	--	1.6E+03	--	--
3-3'-dichlorobenzidine	µg/L	--	7.1E-01	--	--
1,2-dichloroethane	µg/L	--	2.5E+03	--	--
1,1-dichloroethylene	µg/L	--	7.9E+01	--	--
Dichlorobromomethane	µg/L	--	5.5E+02	--	--
Dichloromethane (Methylene Chloride)	µg/L	--	4.0E+04	--	--
1,3-dichloropropene (1,3-Dichloropropylenes)	µg/L	--	7.8E+02	--	--
Dieldrin	µg/L	--	3.5E-03	--	--
2,4-dinitrotoluene	µg/L	--	2.3E+02	--	--
1,2-diphenylhydrazine	µg/L	--	1.4E+01	--	--
Halomethanes ¹	µg/L	--	1.1E+04	--	--
Heptachlor	µg/L	--	4.4E-03	--	--
Heptachlor Epoxide	µg/L	--	1.8E-03	--	--
Hexachlorobenzene	µg/L	--	1.8E-02	--	--
Hexachlorobutadine	µg/L	--	1.2E+03	--	--
Hexachloroethane	µg/L	--	2.2E+02	--	--
Isophorone	µg/L	--	6.4E+04	--	--
N-nitrosodimethylamine	µg/L	--	6.4E+02	--	--

Parameter	Units	Performance Goals ²			
		Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
N-nitrosodi-n-propylamine	µg/L	--	3.3E+01	--	--
N-nitrosodiphenylamine	µg/L	--	2.2E+02	--	--
Polynuclear Aromatic Hydrocarbons (PAHs) ¹	µg/L	--	7.7E-01	--	--
Polychlorinated Biphenyls (PCBs) ¹	µg/L	--	1.7E-03	--	--
TCDD Equivalents ¹	µg/L	--	3.4E-07	--	--
1,1,2,2-tetrachloroethane	µg/L	--	2.0E+02	--	--
Tetrachloroethylene (Tetrachloroethene)	µg/L	--	1.8E+02	--	--
Toxaphene	µg/L	--	1.8E-02	--	--
Trichloroethylene (Trichloroethene)	µg/L	--	2.4E+03	--	--
1,1,2-trichloroethane	µg/L	--	8.3E+02	--	--
2,4,6-trichlorophenol	µg/L	--	2.6E+01	--	--
Vinyl Chloride	µg/L	--	3.2E+03	--	--

¹ See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

² Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1 x 10⁻² or 0.061, 6.1E+02 represents 6.1 x 10² or 610, and 6.1E+00 represents 6.1 x 10⁰ or 6.1.

³ Dischargers may, at their option, apply this performance goal as a total chromium performance goal.

⁴ As specified in section VII.J of this Order and section III.C of the MRP (Attachment E).

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

5. Whole Effluent Toxicity (WET)

- a. The WET testing protects receiving waters from the aggregate toxic effect of a mixture of pollutants in the effluent. Ocean Plan section III.C.4.c.(4) requires chronic toxicity monitoring for ocean waste discharges with a minimum initial dilution below 100:1.
- b. For chronic toxicity, Order No. R9-2014-0004 contained a performance goal of 88 TUc and annual monitoring. During the term of Order No. R9-2014-0004, the maximum reported effluent chronic toxicity value was 42 TUc (November 18, 2014). Using the RPA procedures from the Ocean Plan, the effluent does not have reasonable potential to cause an exceedance of the narrative water quality objective for chronic toxicity (i.e., Endpoint 1).

For this Order, chronic toxicity in the discharge is evaluated using USEPA’s 2010 Test of Significant Toxicity (TST) hypothesis testing approach at the discharge “in-stream” waste concentration (IWC), as described in section VII.J of this Order and section III.C of the MRP (Attachment E). The TST statistical approach is described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and

Table A-1. The TST null hypothesis shall be “mean discharge IWC response $\leq 0.75 \times$ mean control response.” A test that rejects this null hypothesis shall be reported as “Pass”. A test that does not reject this null hypothesis shall be reported as “Fail”. The chronic toxicity performance goal is expressed as “Pass” for each maximum daily individual result. The Discharger shall also report the “Percent Effect” as part of chronic toxicity result.

This Order contains a reopener to require the San Diego Water Board to modify the requirements for toxicity, if necessary, to make it consistent with any new policy, law, or regulation.

- c. For acute toxicity, Order No. R9-2014-0004 established performance goals and no effluent monitoring. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration could have chronic effects but no acute effects until the chemical was at a higher concentration. Thus, chronic toxicity is a more stringent requirement than acute toxicity. To ensure the aggregated impacts of pollutants present within the Discharger’s effluent does not result in the presence of toxicity within the receiving water, this Order retains performance goal for chronic toxicity. This Order removes acute toxicity performance goals. Removal of numeric acute toxicity performance goals does not constitute backsliding because chronic toxicity is a more stringent requirement than acute toxicity.
- d. Section III.F of the Ocean Plan provides for more stringent requirements if necessary to protect the designated beneficial uses of ocean waters. Diamond et al. (2013) examined the side-by-side comparison of No Observed Effect Concentration (NOEC) and TST results using California chronic toxicity test data (including data from POTWs) for the West Coast marine methods and test species required under this Order. See Table 1 (method types 1 through 5) on page 1103 in Diamond J., Denton D., Roberts J., Zheng L. 2013. *Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples*. Environ Toxicol Chem 32:1101-1108. This comparison shows that while the TST and NOEC statistical approaches perform similarly most of the time, the TST performs better in identifying toxic and nontoxic samples, a desirable characteristic for chronic toxicity testing conducted under this Order. This examination also signals that the test methods’ false positive rate (β no higher than 0.05 at a mean effect of 10%) and false negative rate (α no higher than 0.05 (0.25 for top smelt) at a mean effect of 25%) are indeed low. This highlights that using the TST in this Order - in conjunction with other Ocean Plan requirements (West Coast WET method/test species for monitoring and limiting chronic toxicity, the IWC representing the critical condition for water quality protection, the initial dilution procedure, and a single test for compliance)—provides increased assurance that statistical error rates are more directly addressed and accounted for in decisions regarding chronic toxicity in the discharge. As a result and in accordance with Ocean Plan section III.F, the San Diego Water Board is exercising its discretion to use the TST statistical approach for this discharge.

In June 2010, USEPA published a guidance document titled, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: “Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES

WET Program.” The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to USEPA’s WET test methods. Section 9.4.1.2 of USEPA’s *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), recognizes that, “the statistical methods in this manual are not the only possible methods of statistical analysis.” The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine USEPA WET test methods.

The USEPA’s WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. USEPA’s WET methods do not require achievement of specified effluent or ambient concentration-response patterns prior to determining that toxicity is present.⁴ Nevertheless, USEPA’s acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed—as a component of test review following statistical analysis—to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2). In 2000, USEPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (NOEC), percent waste giving 50 percent survival of test organisms (lethal concentration 50, LC 50), effects concentration at 25 percent (EC25) were calculated appropriately (EPA 821-B-00-004).

USEPA designed its 2000 guidance as a standardized step-by-step review process that investigates the causes for ten commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC 50, and EC25, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by USEPA’s 2000 guidance decreased discrepancies in data interpretation for NOEC, LC 50, and EC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA’s TST statistical approach (“Pass”/“Fail”) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of USEPA’s 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria (TAC) and other test review procedures—including those related to quality assurance for effluent and receiving water toxicity tests, reference toxicity tests, and control performance (mean, standard deviation, and coefficient of

⁴ See, Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed. Reg. 69952, 69963, Nov. 19, 2002.

variation)—described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single-concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The San Diego Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t- test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

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

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

NPDES permits must conform with Anti-backsliding requirements discussed in section III.C.5 of this Fact Sheet. These Anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R9-2014-0004. This permit complies with all applicable federal and State Anti-backsliding regulations.

2. Antidegradation Policies

The WDRs for the Discharger must conform with antidegradation requirements discussed in section III.C.4 of this Fact Sheet. The antidegradation policies require that beneficial uses and the water quality necessary to maintain those beneficial uses in the receiving waters of the discharge shall be maintained and protected, and, if existing water quality is better than the quality required to maintain beneficial uses, the existing water quality shall be maintained and protected unless allowing a lowering of water quality is necessary to accommodate important economic and social development or consistent with maximum benefit to the people of California. When a significant lowering of water quality is allowed by the San Diego Water Board, an antidegradation analysis is required in accordance with the State Water Board's Administrative Procedures Update (July 2, 1990), *Antidegradation Policy Implementation for NPDES Permitting*.

The effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R9-2014-0004. This Order complies with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains TBELs for individual pollutants. The TBELs consist of restrictions on TSS, oil and grease, settleable solids, turbidity and pH. Restrictions on these pollutants are discussed in section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

WQBELs have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The procedures for calculating the individual WQBELs are based on the Ocean Plan, which was approved by USEPA on February 14, 2006 and has since been further amended. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1).

Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Receiving water limitations of this Order are derived from the water quality objectives for ocean waters established by the Basin Plan and the Ocean Plan.

Prior to 2009, the San Diego Water Board interpreted the Bacterial Characteristics Water-contact Standards of the Ocean Plan to apply only in the zone bounded by the shoreline and a distance 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and within kelp beds. The Ocean Plan provides that these Bacteriological Standards also apply in designated areas outside this zone used for water contact sports, as determined by the Regional Water Boards (i.e., all waters designated with the contact water recreation (REC-1) beneficial use). These designated areas must be specifically defined in the Basin Plan. Because the San Diego Water Board has designated the ocean waters with the REC-1 beneficial use in the Basin Plan, the Ocean Plan Bacterial Standards apply throughout State of California territorial marine waters in the San Diego Region, which extend from surface to bottom, out to three nautical miles from the shoreline. This interpretation has been confirmed by USEPA.

The Ocean Plan Bacterial Standards for total coliform, fecal coliform, and enterococcus were exceeded 79 times at the offshore receiving water monitoring locations (including the offshore monitoring locations used as a reference) between 2011 and 2019. However, the waste brine from the Facility is not expected to have significant concentrations of bacterial indicators.

This Order includes the new bacterial provisions contained in the 2018 amendment to the Ocean Plan adopted by the State Water Board on August 7, 2018, approved by the USEPA on March 22, 2019, and effective on March 22, 2019.

Order No. R9-2014-0004 contained receiving water limitations based on the *Water Quality Control Plan for Control of Temperature in The Coastal And Interstate Waters And Enclosed Bays And Estuaries Of California* (Thermal Plan). These receiving water limitations were not carried over because the Thermal Plan applies to discharges of elevated temperature wastes.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

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

B. Special Provisions

1. Reopener Provisions

This Order may be re-opened and modified, revoked and reissued, or terminated for cause in accordance with the provisions of 40 CFR parts 122, 123, 124, and 125. The San Diego Water Board may reopen the permit to modify permit conditions and requirements. Causes for modification include, but are not limited to, revisions to effluent limitations, receiving water requirements, and monitoring and reporting requirements; participation in the Southern California Coastal Water Research Project (SCCWRP) monitoring program or other regional or water body monitoring coalition as determined by the San Diego Water Board; or adoption of new or revised regulations, water quality control plans, or policies by the State Water Board or the San Diego Water Board, including revisions to the Basin Plan or Ocean Plan.

2. Special Studies, Technical Reports, and Additional Monitoring Requirements– Not Applicable

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Construction, Operation, and Maintenance Specifications

- a. This Order carries over provisions from Order No. R9-2014-0004 to ensure that new treatment facilities and expansions of existing treatment facilities are completely constructed and operable prior to initiation of the discharge from the new or expanded facilities.
- b. This Order carries over a provision from Order No. R9-2014-0004 to ensure the Facility are protected against the impact of storm events.

5. Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the San Diego Water Board to establish monitoring, inspection, entry,

reporting, and recordkeeping requirements. The MRP (Attachment E) 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 the Facility. The burdens, including costs, of the MRP (Attachment E) required by this Order bear a reasonable relationship to the need for and benefits to be obtained from the MRP (Attachment E) to ensure compliance the Order, protect beneficial uses, and obtain other benefits as described in this Fact Sheet.

A. Core Monitoring Requirements

1. Influent Monitoring – Not Applicable

2. Effluent Monitoring

Effluent monitoring is required to determine compliance with the conditions of this Order, to identify operational problems, to improve plant performance, and to conduct reasonable potential analyses for subsequent orders. Effluent monitoring also provides information on wastewater characteristics for use in interpreting water quality and biological data. Effluent monitoring requirements have been carried over from Order No. R9-2014-0004, with the following exceptions.

- a. This Order removes the requirement to conduct semiannual monitoring for TDS. TDS is a redundant parameter of specific electric conductivity.
- b. This Order changes the units for specific electric conductivity from deciSiemens per meter (dS/m) to millimho per centimeter (mmho/cm) to be consistent with other permits recently adopted by the San Diego Water Board and to be consistent with the units the Discharger has been using to report the specific electric conductivity in its SMRs.
- c. This Order increases the monitoring frequency for specific electric conductivity from semiannually to monthly to evaluate whether the initial dilution factor of 87 is still applicable and appropriate and to re-assess the dilution credit if the brine discharges from the Facility, the MBGPF, and/or the Advanced Water Treatment Plant at Haybarn Canyon changes effluent quality discharged at Discharge Point No. 001.
- d. For total chlorine residual and ammonia, this Order increases monitoring frequency from annual to quarterly to determine compliance with the new effluent limitations for these parameters.
- e. For this Order, the Discharger may apply the performance goal for both chromium (VI) and chromium (III) as a total chromium performance goal. The Ocean Plan allows dischargers to meet the objective for chromium (VI) as a total chromium objective (footnote a, of Table 1 of the Ocean Plan). Total chromium includes both chromium (VI) and chromium (III) and applicable federal regulations in 40 CFR 136 under the CWA do not specify an analytical method for chromium (III)⁵. Thus, this Order allows the Discharger to also meet the objective for chromium (III) as a total chromium objective. If the Discharger only monitors for total chromium to meet the requirements for both chromium (VI) and chromium (III), the total chromium data will be used to determine if reasonable potential exists for both chromium (VI) and chromium (III) in future permit reissuances and/or updates.

⁵ In order to obtain a value for chromium (III), two separate methods must be used: one for total chromium determination and one for chromium (VI) determination. The value for chromium (III) is obtained by subtracting the chromium (VI) value from the total chromium value.

Refer to section III.B of the MRP (Attachment E).

3. Whole Effluent Toxicity Testing Requirements

This Order contains chronic toxicity performance goals as described in section IV.C.5 of this Fact Sheet.

Consistent with the requirements of the Ocean Plan, section III.C.6 of the MRP (Attachment E) requires the Discharger to develop an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan and submit the Initial Investigation TRE Work Plan within 90 days of the effective date of this Order. The Initial Investigation TRE Work Plan must describe steps the Discharger intends to follow if the performance goal for chronic toxicity is exceeded.

Section III.C.10 of the Ocean Plan requires a TRE if a discharge consistently exceeds an performance goal based on a toxicity objective in Table 1 of the Ocean Plan. To determine if the discharge consistently exceeds the toxicity performance goal, this Order requires the Discharger to notify the San Diego Water Board and to accelerate toxicity testing if the performance goal for chronic toxicity is exceeded in any one test. If any of the additional tests demonstrate toxicity, in accordance with section III.C.10 of the Ocean Plan, the Discharger is required to submit a detailed TRE Work Plan in accordance with its submitted Initial Investigation TRE Work Plan and USEPA guidance⁶ which shall include: further steps taken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. The Discharger must also implement a Toxicity Identification Evaluation (TIE), as necessary, based upon the magnitude and persistence of toxicity performance goal exceedances. Once the source of toxicity is identified, the Discharger must take all reasonable steps to reduce the toxicity to meet the chronic toxicity performance goal identified in section IV.A.2 of this Order.

The above accelerated monitoring (a minimum of four succeeding tests performed at 14-day intervals) is based on the probability of encountering at least one toxicity exceedance assuming a true, but unknown level of occurrence.

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

Refer to section III.C of the MRP (Attachment E).

⁶ See (a) TRE Guidance for Municipal Wastewater Treatment Plants (EPA 833-B-99-002, 1999); (b) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070); Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F); (c) Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080); (d) Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081); and (e) Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document (EPA/600/R-96-054,1996).

B. Receiving Water Monitoring

This Order removes the requirements from Order No. R9-2014-0004 to conduct receiving water monitoring as the Discharger is not a significant contributor to the OOO. The City of Oceanside; Fallbrook Public Utility District; and Marine Corps Base, Camp Pendleton (MCBCP) conduct receiving water monitoring for their individual discharges to the OOO. The receiving water monitoring is designed to measure the effects of the OOO discharge on the receiving ocean waters, including effects on coastal water quality, seafloor sediments, and marine life. The receiving water monitoring data may be used, in conjunction with other pertinent technical information, to determine compliance with the receiving water limitations and other related provisions of this Order. The Discharger shall review the receiving water monitoring reports submitted by the City of Oceanside, Fallbrook Public Utility District, and MCBCP as they become available on the State Water Board website at <http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportEsmrAtGlanceServlet?inCommand=r eset>.

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

C. Regional Monitoring Requirements

Regional ocean water monitoring provides information about the sources, fates, and effects of anthropogenic contaminants in the coastal marine environment necessary to make assessments over large areas. The large-scale assessments provided by regional monitoring describe and evaluate cumulative effects of all anthropogenic inputs and enable better decision-making regarding protection of beneficial uses of ocean waters. Regional monitoring data assists in the interpretation of core monitoring studies by providing a more accurate and complete characterization of reference conditions and natural variability. Regional monitoring also leads to methods standardization and improved quality control through inter-calibration exercise. The coalitions implementing regional monitoring enable sharing of technical resources, trained personnel, and associated costs. Focusing these resources on regional issues and developing a broader understanding of pollutants effects in ocean waters enables the development of more rapid and effective response strategies. Based on all of these considerations the San Diego Water Board supports regional approaches to monitoring ocean waters.

The Discharger is encouraged to participate with other regulated entities, other interested parties, and the San Diego Water Board in development and implementation of new and improved monitoring and assessment programs for ocean waters in the San Diego Region and discharges to those waters.

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

1. Kelp Bed Canopy Monitoring Requirements

Kelp consists of a number of species of brown algae. Along the central and southern California coast, giant kelp (*Macrocystis pyrifera*) is the largest species colonizing rocky, and in some cases sandy, subtidal habitats. Giant kelp is an important component of coastal and island communities in southern California, providing food and habitat for numerous animals.

The City of Oceanside, the MCBCP, and the Fallbrook Public Utility District participate, for their individual discharges to the OOO, in an ongoing regional survey of coastal kelp beds in the Southern California Bight. The intent of these surveys is to provide an indication of the health of these kelp beds, recognizing that the extent of kelp bed canopies may change due to variety of influences. Kelp bed canopy data obtained from the regional monitoring program may be used, in conjunction with other pertinent

technical information, to determine compliance with the receiving water limitations and other related provisions of this Order. The Discharger shall review the findings and conclusions of each annual Status of the Kelp Beds Report as it becomes available on the Southern California Bight Regional Aerial Kelp Surveys website at <http://kelp.sccwrp.org/reports.html>.

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

2. Southern California Bight Regional Monitoring Program Participation Requirements

The Southern California Bight (Bight), defined as the concave bend of the shoreline extending from Point Conception to Punta Colonet in Mexico, is host to unique, biologically diverse marine ecosystems that have long been vulnerable to the impacts of human activity. The coastal zone of the Bight hosts nearly 22 million U.S. residents that engage in a wide variety of industrial, military, and recreational activities. Approximately 5,600 miles of watersheds, half of which is highly developed, drain into the Bight. The Southern California Bight Regional Monitoring Program brings together researchers and water-quality managers to pool their resources and work together to investigate the condition of marine ecosystems both spatially and temporally, and extend greater protections to the Bight's diverse habitats and natural resources.

The Discharger may be requested by the San Diego Water Board to participate in the Southern California Bight Regional Monitoring Program coordinated by the SCCWRP, or any other coordinated regional monitoring effort named by the San Diego Water Board, pursuant to Water Code sections 13267 and 13383, and 40 CFR section 122.48. The intent of the Southern California Bight Regional Monitoring Program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled scientific resources of the Southern California Bight.

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

D. Special Studies Requirements – NOT APPLICABLE

VIII. PUBLIC PARTICIPATION

The San Diego Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, the San Diego Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process by providing a period of a minimum of 30 days for public review and comment on the Tentative Order.

A. Notification of Interested Parties

The San Diego Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided by posting a Notice of Public Hearing and Comment and the tentative WDRs on the San Diego Water Board's website for the duration of the public comment period. The Tentative Order was posted on the San Diego Water Board website and emailed to the Discharger and all known interested parties on September 27, 2019.

The public also had access to the meeting agenda including all supporting documents and any changes in meeting dates and locations through the San Diego Water Board's website at <http://www.waterboards.ca.gov/sandiego/>.

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 San Diego Water Board at 2375 Northside Drive, Suite 100, San Diego, CA 92108.

To be fully responded to by staff and considered by the San Diego Water Board, the written comments were due at the San Diego Water Board office by 5:00 p.m. on October 28, 2019.

C. Public Hearing

The San Diego 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 11, 2019 and February 12, 2020

Time: 9:00 AM

Location: San Diego Regional Water Quality Control Board, San Diego Water Board Meeting Room, 2375 Northside Drive, Suite 108, San Diego, California 92108

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

D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and CCR, title 23, sections 2050. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Petitions may be sent in as follows:

By mail:

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

In Person:

State Water Resources Control Board
Office of Chief Counsel
1001 I Street
Sacramento, California 95814

By email: waterqualitypetitions@waterboards.ca.gov

By fax:

(916) 341-5199

For instructions on how to file a petition for review, see:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The ROWD, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday

through Friday. Copying of documents may be arranged through the San Diego Water Board by calling (619) 516-1990.

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 San Diego 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 Joann Lim by email at Joann.Lim@waterboards.ca.gov or by phone at (619) 521-3362.

ATTACHMENT G – DISCHARGE PROHIBITIONS CONTAINED IN THE OCEAN PLAN AND BASIN PLAN**I. Ocean Plan Discharge Prohibitions**

- A.** The Discharge of any radiological chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
- B.** Waste shall not be discharged to designated Areas of Special Biological Significance except as provided in chapter III.E. of the Ocean Plan.
- C.** Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.
- D.** The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Table 1 or Table 2 [of the Ocean Plan] to the ocean is prohibited, except as allowed by Federal Standard Provisions I.G and I.H (Attachment D).
- E.** The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

II. Basin Plan Discharge Prohibitions

- A.** The discharge of waste to waters of the State in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in Water Code section 13050, is prohibited.
- B.** The discharge of waste to land, except as authorized by WDRs of the terms described in Water Code section 13264 is prohibited.
- C.** The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in Water Code section 13376) is prohibited.
- D.** Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless the San Diego Water Board issues an NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State of California Department of Public Health and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
- E.** The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the San Diego Water Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
- F.** The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the San Diego Water Board.

- G.** The dumping, deposition, or discharge of waste directly into waters of the State, or adjacent to such waters in any manner which may permit it's being transported into the waters, is prohibited unless authorized by the San Diego Water Board.
- H.** Any discharge to a storm water conveyance system that is not composed entirely of storm water is prohibited unless authorized by the San Diego Water Board. [The federal regulations, 40 CFR section 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR section 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to an NPDES permit and discharges resulting from firefighting activities.] [section 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].
- I.** The unauthorized discharge of treated or untreated sewage to waters of the State or to a storm water conveyance system is prohibited.
- J.** The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in Water Code section 13264, is prohibited.
- K.** The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the State is prohibited.
- L.** The discharge of any radiological, chemical, or biological warfare agent into waters of the State is prohibited.
- M.** The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the San Diego Water Board.
- N.** The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the State or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.