

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
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**TENTATIVE ORDER NO. R9-2026-0049
NPDES PERMIT NO. CA0109258**

**WASTE DISCHARGE REQUIREMENTS
FOR SAPPORO USA
DISCHARGE TO THE PACIFIC OCEAN
THROUGH THE SAN ELIJO OCEAN OUTFALL**

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

Discharger Sapporo USA
Name of Facility Sapporo USA
Facility Address 1999 Citracado Parkway
 Escondido CA 92029
 San Diego County

Table 1 Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Brine Wastewaters and Cooling Tower Blowdown	33° 00' 21" N	117° 18' 09" W	Pacific Ocean

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 expiration date of this Order. The United States Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, San Diego Region have classified this discharge as follows: **Minor**

This Order was adopted on: **November 10, 2026**

This Order shall become effective on: **January 1, 2027**

This Order shall expire on: **December 31, 2031**

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.

Tentative

David W. Gibson, Executive Officer

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1 Facility Information

Information describing Sapporo USA (Facility) is summarized on page 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2 Findings

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

2.1 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). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing Sapporo USA (Discharger) to discharge into waters of the United States at the discharge location described in Table 1 subject to the WDRs in this Order.

2.2 Background and Rationale for Requirements

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

2.3 Provisions and Requirements Implementing State Law

Any provisions or requirements that are included to implement State of California (State) law only are not required or authorized under the federal CWA; consequently, violations of these provisions or requirements are not subject to the enforcement remedies that are available for NPDES violations.

2.4 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.

2.5 Notification of Interested Parties

The San Diego Water Board staff notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet (Attachment F).

2.6 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 (Attachment F).

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-2018-0063, NPDES Permit No. CA0109258, *Waste Discharge Requirements for Liquid Stone Holdings, LLC DBA Stone Brewing Co. Discharge to the Pacific Ocean Through the San Elijo Ocean Outfall* (Previous Order), 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 1 to the Pacific Ocean off the coast of San Diego County. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of the Previous Order. This action in no way prevents the San Diego Water Board from taking enforcement action for violations of the Previous Order.

3 Discharge Prohibitions

- 3.1 The discharge of waste from the Facility not in compliance with the effluent limitations specified in section 4.1 is prohibited.
- 3.2 The discharge of waste from the Facility to a location other than Discharge Point 001, unless specifically regulated by this Order or separate WDRs, is prohibited.
- 3.3 The discharge of waste containing trash or material that is floatable or will become floatable upon discharge is prohibited.
- 3.4 The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

4 Effluent Limitations and Performance Goals

4.1 Effluent Limitations – Discharge Point 001

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

Table 2 Effluent Limitations^{1,2}

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	--	--	0.10	--	--

Oil and Grease ³	mg/L	25	40	--	--	75
Oil and Grease ³	lbs/day	20.9	33.4	--	--	62.6
Total Suspended Solids (TSS) ³	mg/L	60	--	--	--	--
TSS ³	lbs/day	50.0	--	--	--	--
Settleable Solids ³	ml/L	1.0	1.5	--	--	3.0
Turbidity ³	NTU	75	100	--	--	225
pH ³	standard units	--	--	--	6.0	9.0
Dieldrin ⁴	µg/L	9.52E-03	--	--	--	--
Dieldrin ⁴	lbs/day	7.94E-06	--	--	--	--
Tetrachlorodiben zodioxin (TCDD) Equivalents ^{4,5}	µg/L	--	9.28E-07	--	--	
TCDD Equivalents ^{4,5}	lbs/day	--	7.74E-10	--	--	

Notes for Table 2

- Scientific “E” notation is used to express all values to three significant figures. 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 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^2 or 610, and 6.1E00 represents 6.1×10^0 or 6.1.
- The mass emission rate limitation is calculated using the following equation:

$$\text{MER} = \text{Cf} \times \text{Q} \times \text{C}$$
Where:
MER = mass emission rate in lbs/day
Cf = conversion factor 8.34 when C is in mg/L or 0.00834 when C is in ug/L
Q = permitted flow for the Facility in MGD
C = concentration in mg/L or ug/L as listed for the parameter in the table
- Effluent limitations from Table 4 of the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan).
- Effluent limitations derived from Table 3 of the Ocean Plan, *Objectives for Protection of Human Health*.
- See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

4.2 Performance Goals – Discharge Point 001

Parameters that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives, or for which the San Diego Water Board staff could not determine reasonable potential to cause or contribute to an

exceedance of water quality objectives, are referred to as performance goal parameters and are assigned the performance goals listed in Table 3 below. Performance goal parameters shall be monitored at Monitoring Location EFF-001 as described in the MRP (Attachment E), but the results will be used for informational purposes, not compliance determinations. The performance goals in Table 3 are not water quality-based effluent limitations (WQBELs) and are not enforceable, as such. The Discharger shall report all exceedances of performance goals in the cover letter of the applicable self-monitoring report (SMR). Persistent exceedances of performance goals may trigger an investigation into the cause of the exceedance.

The Discharger may be required to submit a Performance Goal Exceedance Investigation Work Plan by direction of the San Diego Water Board if exceedances of performance goals persist. The Performance Goal Exceedance Investigation Work Plan is required to outline the investigative steps being taken, whether outside technical expertise is being retained to assist in the investigation, and the proposed schedule for completing a Performance Goal Exceedance Report. The Performance Goal Exceedance Report is required to include a description of the nature of the exceedance(s), the results of the investigation including the cause of the exceedance(s), the corrective actions taken, any proposed corrective measures, and a schedule for implementation, if necessary.

Repeated exceedances of performance goals may prompt the San Diego Water Board to reopen and amend this Order to replace performance goals for constituents of concern with effluent limitations, or the San Diego Water Board may coordinate such actions with the next permit reissuance. The Discharger is in violation of this Order if it does not comply with the performance goal investigation and reporting requirements, when required by the terms of this Order.

Table 3 Performance Goals^{1,2}

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Arsenic, Total Recoverable ³	µg/L	1.19E+03	--	6.91E+03	1.83E+04
Arsenic, Total Recoverable ³	lbs/day	9.95E-01	--	5.76E00	1.53E+01
Cadmium, Total Recoverable ³	µg/L	2.38E+02	--	9.52E+02	2.38E+03
Cadmium, Total Recoverable ³	lbs/day	1.98E-01	--	7.94E-01	1.98E00
Chromium VI, Total Recoverable ^{3,4}	µg/L	4.76E+02	--	1.90E+03	4.76E+03

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Chromium VI, Total Recoverable ^{3,4}	lbs/day	3.97E-01	--	1.59E00	3.97E00
Copper, Total Recoverable ³	µg/L	2.40E+02	--	2.38E+03	6.67E+03
Copper, Total Recoverable ³	lbs/day	2.00E-01	--	1.99E00	5.56E00
Lead, Total Recoverable ³	µg/L	4.76E+02	--	1.90E+03	4.76E+03
Lead, Total Recoverable ³	lbs/day	3.97E-01	--	1.59E00	3.97E00
Mercury, Total Recoverable ³	µg/L	9.40E00	--	3.80E+01	9.51E+01
Mercury, Total Recoverable ³	lbs/day	7.84E-03	--	3.17E-02	7.93E-02
Nickel, Total Recoverable ³	µg/L	1.19E+03	--	4.76E+03	1.19E+04
Nickel, Total Recoverable ³	lbs/day	9.92E-01	--	3.97E00	9.92E00
Selenium, Total Recoverable ³	µg/L	3.57E+03	--	1.43E+04	3.57E+04
Selenium, Total Recoverable ³	lbs/day	2.98E00	--	1.19E+01	2.98E+01
Silver, Total Recoverable ³	µg/L	1.29E+02	--	6.28E+02	1.63E+03
Silver, Total Recoverable ³	lbs/day	1.07E-01	--	5.24E-01	1.36E00
Zinc, Total Recoverable ³	µg/L	2.86E+03	--	1.71E+04	4.57E+04
Zinc, Total Recoverable ³	lbs/day	2.39E00	--	1.43E+01	3.81E+01
Cyanide ³	µg/L	2.38E+02	--	9.52E+02	2.38E+03
Cyanide ³	lbs/day	1.98E-01	--	7.94E-01	1.98E00
Total Chlorine Residual ³	µg/L	4.76E+02	--	1.90E+03	1.43E+04
Total Chlorine Residual ³	lbs/day	3.97E-01	--	1.59E00	1.19E+01
Ammonia (expressed as nitrogen) ³	µg/L	1.43E+05	--	5.71E+05	1.43E+06
Ammonia (expressed as nitrogen) ³	lbs/day	1.19E+02	--	4.76E+02	1.19E+03
Chronic Toxicity ^{3,5,6}	"Pass"/"Fail"	--	--	"Pass"	--
Phenolic Compounds (non-chlorinated) ^{3,7}	µg/L	7.14E+03	--	2.86E+04	7.14E+04
Phenolic Compounds (non-chlorinated) ^{3,7}	lbs/day	5.95E00	--	2.38E+01	5.95E+01

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Chlorinated Phenolics ^{3,7}	µg/L	2.38E+02	--	9.52E+02	2.38E+03
Chlorinated Phenolics ^{3,7}	lbs/day	1.98E-01	--	7.94E-01	1.98E00
Endosulfan ^{3,7}	µg/L	2.14E00	--	4.28E00	6.43E00
Endosulfan ^{3,7}	lbs/day	1.79E-03	--	3.57E-03	5.36E-03
Endrin ³	µg/L	4.76E-01	--	9.52E-01	1.43E00
Endrin ³	lbs/day	3.97E-04	--	7.94E-04	1.19E-03
Hexachlorocyclohexane (HCH or BHC) ^{3,7}	µg/L	9.52E-01	--	1.90E00	2.86E00
HCH or BHC ^{3,7}	lbs/day	7.94E-04	--	1.59E-03	2.38E-03
Radioactivity ³	picocurie per liter (pCi/L)	--	⁸	--	--
Acrolein ⁹	µg/L	--	5.24E+04	--	--
Acrolein ⁹	lbs/day	--	4.37E+01	--	--
Antimony, Total Recoverable ⁹	µg/L	--	2.86E+05	--	--
Antimony, Total Recoverable ⁹	lbs/day	--	2.38E+02	--	--
Bis(2-chloroethoxy) Methane ⁹	µg/L	--	1.05E+03	--	--
Bis(2-chloroethoxy) Methane ⁹	lbs/day	--	8.73E-01	--	--
Bis(2-chloroisopropyl) Ether ⁹	µg/L	--	2.86E+05	--	--
Bis(2-chloroisopropyl) Ether ⁹	lbs/day	--	2.38E+02	--	--
Chlorobenzene ⁹	µg/L	--	1.36E+05	--	--
Chlorobenzene ⁹	lbs/day	--	1.13E+02	--	--
Chromium (III), Total Recoverable ^{4,9}	µg/L	--	4.52E+07	--	--
Chromium (III), Total Recoverable ^{4,9}	lbs/day	--	3.77E+04	--	--
Di-n-butyl Phthalate ⁹	µg/L	--	8.33E+05	--	--
Di-n-butyl Phthalate ⁹	lbs/day	--	6.95E+02	--	--
Dichlorobenzenes ^{7,9}	µg/L	--	1.21E+06	--	--

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Dichlorobenzenes ^{7,9}	lbs/day	--	1.01E+03	--	--
Diethyl Phthalate ⁹	µg/L	--	7.85E+06	--	--
Diethyl Phthalate ⁹	lbs/day	--	6.55E+03	--	--
Dimethyl Phthalate ⁹	µg/L	--	1.95E+08	--	--
Dimethyl Phthalate ⁹	lbs/day	--	1.63E+05	--	--
4,6-dinitro-2-methylphenol ⁹	µg/L	--	5.24E+04	--	--
4,6-dinitro-2-methylphenol ⁹	lbs/day	--	4.37E+01	--	--
2,4-dinitrophenol ⁹	µg/L	--	9.52E+02	--	--
2,4-dinitrophenol ⁹	lbs/day	--	7.94E-01	--	--
Ethylbenzene ⁹	µg/L	--	9.76E+05	--	--
Ethylbenzene ⁹	lbs/day	--	8.14E+02	--	--
Fluoranthene ⁹	µg/L	--	3.57E+03	--	--
Fluoranthene ⁹	lbs/day	--	2.98E00	--	--
Hexachlorocyclopentadiene ⁹	µg/L	--	1.38E+04	--	--
Hexachlorocyclopentadiene ⁹	lbs/day	--	1.15E+01	--	--
Nitrobenzene ⁹	µg/L	--	1.17E+03	--	--
Nitrobenzene ⁹	lbs/day	--	9.73E-01	--	--
Thallium, Total Recoverable ⁹	µg/L	--	4.76E+02	--	--
Thallium, Total Recoverable ⁹	lbs/day	--	3.97E-01	--	--
Toluene ⁹	µg/L	--	2.02E+07	--	--
Toluene ⁹	lbs/day	--	1.69E+04	--	--
Tributyltin ⁹	µg/L	--	3.33E-01	--	--
Tributyltin ⁹	lbs/day	--	2.78E-04	--	--
1,1,1-trichloroethane ⁹	µg/L	--	1.29E+08	--	--
1,1,1-trichloroethane ⁹	lbs/day	--	1.07E+05	--	--
Acrylonitrile ¹⁰	µg/L	--	2.38E+01	--	--

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Acrylonitrile ¹⁰	lbs/day	--	1.98E-02	--	--
Aldrin ¹⁰	µg/L	--	5.24E-03	--	--
Aldrin ¹⁰	lbs/day	--	4.37E-06	--	--
Benzene ¹⁰	µg/L	--	1.40E+03	--	--
Benzene ¹⁰	lbs/day	--	1.17E00	--	--
Benzidine ¹⁰	µg/L	--	1.64E-02	--	--
Benzidine ¹⁰	lbs/day	--	1.37E-05	--	--
Beryllium, Total Recoverable ¹⁰	µg/L	--	7.85E00	--	--
Beryllium, Total Recoverable ¹⁰	lbs/day	--	6.55E-03	--	--
Bis(2-chloroethyl) Ether ¹⁰	µg/L	--	1.07E+01	--	--
Bis(2-chloroethyl) Ether ¹⁰	lbs/day	--	8.93E-03	--	--
Bis(2-ethlyhexyl) Phthalate ¹⁰	µg/L	--	8.33E+02	--	--
Bis(2-ethlyhexyl) Phthalate ¹⁰	lbs/day	--	6.95E-01	--	--
Carbon Tetrachloride ¹⁰	µg/L	--	2.14E+02	--	--
Carbon Tetrachloride ¹⁰	lbs/day	--	1.79E-01	--	--
Chlordane ^{7,10}	µg/L	--	5.47E-03	--	--
Chlordane ^{7,10}	lbs/day	--	4.57E-06	--	--
Chlorodibromomethane ¹⁰	µg/L	--	2.05E+03	--	--
Chlorodibromomethane ¹⁰	lbs/day	--	1.71E00	--	--
Chloroform ¹⁰	µg/L	--	3.09E+04	--	--
Chloroform ¹⁰	lbs/day	--	2.58E+01	--	--
Dichlorodiphenyltrichloroethane (DDT) ^{7,10}	µg/L	--	4.05E-02	--	--
DDT ^{7,10}	lbs/day	--	3.37E-05	--	--
1,4-dichlorobenzene ¹⁰	µg/L	--	4.28E+03	--	--
1,4-dichlorobenzene ¹⁰	lbs/day	--	3.57E00	--	--
3,3'-dichlorobenzidine ¹⁰	µg/L	--	1.93E00	--	--

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
3,3'-dichlorobenzidine ¹⁰	lbs/day	--	1.61E-03	--	--
1,2-dichloroethane ¹⁰	µg/L	--	6.66E+03	--	--
1,2-dichloroethane ¹⁰	lbs/day	--	5.56E00	--	--
1,1-dichloroethylene ¹⁰	µg/L	--	2.14E+02	--	--
1,1-dichloroethylene ¹⁰	lbs/day	--	1.79E-01	--	--
Dichlorobromomethane ¹⁰	µg/L	--	1.48E+03	--	--
Dichlorobromomethane ¹⁰	lbs/day	--	1.23E00	--	--
Dichloromethane (Methylene Chloride) ¹⁰	µg/L	--	1.07E+05	--	--
Dichloromethane (Methylene Chloride) ¹⁰	lbs/day	--	8.93E+01	--	--
1,3-dichloropropene (1,3-Dichloropropylenes) ¹⁰	µg/L	--	2.12E+03	--	--
1,3-dichloropropene (1,3-Dichloropropylenes) ¹⁰	lbs/day	--	1.77E00	--	--
2,4-dinitrotoluene ¹⁰	µg/L	--	6.19E+02	--	--
2,4-dinitrotoluene ¹⁰	lbs/day	--	5.16E-01	--	--
1,2-diphenylhydrazine ¹⁰	µg/L	--	3.81E+01	--	--
1,2-diphenylhydrazine ¹⁰	lbs/day	--	3.18E-02	--	--
Halomethanes ^{7,10}	µg/L	--	3.09E+04	--	--
Halomethanes ^{7,10}	lbs/day	--	2.58E+01	--	--
Heptachlor ¹⁰	µg/L	--	1.19E-02	--	--
Heptachlor ¹⁰	lbs/day	--	9.92E-06	--	--
Heptachlor Epoxide ¹⁰	µg/L	--	4.76E-03	--	--
Heptachlor Epoxide ¹⁰	lbs/day	--	3.97E-06	--	--
Hexachlorobenzene ¹⁰	µg/L	--	5.00E-02	--	--
Hexachlorobenzene ¹⁰	lbs/day	--	4.17E-05	--	--
Hexachlorobutadiene ¹⁰	µg/L	--	3.33E+03	--	--
Hexachlorobutadiene ¹⁰	lbs/day	--	2.78E00	--	--

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Hexachloroethane ¹⁰	µg/L	--	5.95E+02	--	--
Hexachloroethane ¹⁰	lbs/day	--	4.96E-01	--	--
Isophorone ¹⁰	µg/L	--	1.74E+05	--	--
Isophorone ¹⁰	lbs/day	--	1.45E+02	--	--
N-nitrosodimethylamine ¹⁰	µg/L	--	1.74E+03	--	--
N-nitrosodimethylamine ¹⁰	lbs/day	--	1.45E00	--	--
N-nitrosodi-N-propylamine ¹⁰	µg/L	--	9.04E+01	--	--
N-nitrosodi-N-propylamine ¹⁰	lbs/day	--	7.54E-02	--	--
N-nitrosodiphenylamine ¹⁰	µg/L	--	5.95E+02	--	--
N-nitrosodiphenylamine ¹⁰	lbs/day	--	4.96E-01	--	--
Polynuclear Aromatic Hydrocarbons (PAHs) ^{7,10}	µg/L	--	2.09E00	--	--
PAH ^{7,10}	lbs/day	--	1.75E-03	--	--
Polychlorinated Biphenyls (PCBs) ^{7,10}	µg/L	--	4.52E-03	--	--
PCB ^{7,10}	lbs/day	--	3.77E-06	--	--
1,1,2,2-tetrachloroethane ¹⁰	µg/L	--	5.47E+02	--	--
1,1,2,2-tetrachloroethane ¹⁰	lbs/day	--	4.57E-01	--	--
Tetrachloroethylene (Tetrachloroethene) ¹⁰	µg/L	--	4.76E+02	--	--
Tetrachloroethylene (Tetrachloroethene) ¹⁰	lbs/day	--	3.97E-01	--	--
Toxaphene ¹⁰	µg/L	--	5.00E-02	--	--
Toxaphene ¹⁰	lbs/day	--	4.17E-05	--	--
Trichloroethylene ¹⁰	µg/L	--	6.43E+03	--	--
Trichloroethylene ¹⁰	lbs/day	--	5.36E00	--	--
1,1,2-trichloroethane ¹⁰	µg/L	--	2.24E+03	--	--
1,1,2-trichloroethane ¹⁰	lbs/day	--	1.87E00	--	--
2,4,6-trichlorophenol ¹⁰	µg/L	--	6.90E+01	--	--

Parameter	Units	6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
2,4,6-trichlorophenol ¹⁰	lbs/day	--	5.76E-02	--	--
Vinyl Chloride ¹⁰	µg/L	--	8.57E+03	--	--
Vinyl Chloride ¹⁰	lbs/day	--	7.15E00	--	--

Notes for Table 3

- Scientific “E” notation is used to express all values to three significant figures. 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 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^2 or 610, and 6.1E00 represents 6.1×10^0 or 6.1.
- The mass emission rate limitation is calculated using the following equation:

$$\text{MER} = \text{Cf} \times \text{Q} \times \text{C}$$

Where:
MER is the mass emission rate in lbs/day
Cf is the conversion factor 8.34 when C is in mg/L or 0.00834 when C is in µg/L
Q is the permitted flow for the Facility in MGD
C is the concentration in mg/L or µg/L as listed for the parameter in the table
- Performance goals derived from Table 3 of the Ocean Plan, Protection of Marine Aquatic Life.
- The Discharger may apply this performance goal as a total chromium performance goal.
- Applicable to chronic toxicity as specified in section 6.12 and section 3.2 of the MRP (Attachment E).
- The chronic toxicity performance goal is protective of both the numeric acute and chronic toxicity water quality objectives in the 2019 Ocean Plan. 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).
- See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.
- 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.

- 9 Performance goals derived from Table 3 of the Ocean Plan, Protection of Human Health – Noncarcinogens.
- 10 Performance goals derived from Table 3 of the Ocean Plan, Protection of Human Health – Carcinogens.

5 Provisions

5.1 Standard Provisions

5.1.1 Federal Standard Provisions. The Discharger shall comply with all applicable Standard Provisions included in Attachment D.

5.1.2 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:

- 5.1.2.1 The expiration of this Order is contained on page one. 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.
- 5.1.2.2 The Discharger shall maintain a copy of this Order for access in hard copy at a prominent on-site location at the Facility, or access in electronic format. The Order shall be available for access by site personnel, San Diego Water Board, State Water Resources Control Board (State Water Board), and USEPA or their authorized representative at all times. Electronic access to this Order through a device that provides online access on the premises of the Facility shall be considered equivalent to on-site access.

5.2 Monitoring and Reporting Program Requirements

- 5.2.1 The Discharger shall comply with the Monitoring and Reporting Program (MRP), and future revisions thereto, in Attachment E .
- 5.2.2 Notifications required to be provided under this Order to the San Diego Water Board shall be made to:
E-mail – SanDiego@waterboards.ca.gov,
Telephone – (619) 516-1990, or
Facsimile – (619) 516-1994.

5.3 Special Provisions

5.3.1 Reopener Provisions

- 5.3.1.1 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 4.2 or as otherwise described in Table 3 of the Ocean Plan. (40 CFR section 122.44(d)(1)).

- 5.3.1.2 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 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).
- 5.3.1.3 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:
- Violation of any terms or conditions of this Order. (Water Code section 13381(a));
 - Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts. (Water Code section 13381(b)); and
 - A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. (Water Code section 13381(c)).
- 5.3.1.4 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))
- 5.3.1.5 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))
- 5.3.1.6 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))
- 5.3.1.7 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))

- 5.3.1.8 This Order may be reopened upon submission by the Discharger of adequate information, as 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))
- 5.3.1.9 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.
- 5.3.1.10 The performance goals, contained in section 4.2, 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.

5.3.2 Construction, Operation and Maintenance Specifications

- 5.3.2.1 The Facility shall be protected against a 100-year frequency flood flows as defined by the San Diego County Flood Control District.
- 5.3.2.2 The Facility shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour storm event as defined by the National Oceanic and Atmospheric Administration Atlas 14 Point Precipitation Frequency Estimates available at <https://hdsc.nws.noaa.gov/pfds/>.

6 Compliance Determination

Compliance with the effluent limitations contained in section 4.1 will be determined as specified below:

6.1 Compliance with 6-Month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the 6-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 6-month median effluent limitation, 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 6-month median effluent limitation.

6.2 Compliance with Average Monthly Effluent Limitation

If the average of daily discharges over a calendar month exceeds the average monthly effluent limitation (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 that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample is taken, no compliance determination can be made for that calendar month.

6.3 Compliance with Average Weekly Effluent Limitation

If the average of daily discharges over a calendar week (Sunday through Saturday) exceeds the average weekly effluent limitation (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.

6.4 Compliance with Maximum Daily Effluent Limitation

The maximum daily effluent limitation (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.

6.5 Compliance with Instantaneous Minimum Effluent Limitation

The instantaneous minimum effluent 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).

6.6 Compliance with Instantaneous Maximum Effluent Limitation

The instantaneous maximum effluent 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).

6.7 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 “Not Detected” (ND) or “Detected, but Not Quantified” (DNQ), the corresponding MER determined from that sample concentration shall also be reported as “ND” or “DNQ.”

6.8 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).

6.9 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.

6.10 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.

6.11 Mass Emission Rate

The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

$$\text{MER} = \text{Cf} \times \text{Q} \times \text{C}$$

Where:

MER is the mass emission rate in lbs/day

Cf is the conversion factor 8.34 when C is in mg/L or 0.00834 when C is in ug/L

Q is the permitted flow for the Facility in MGD

C is the concentration in mg/L or ug/L as listed for the parameter in the table

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.

6.12 Chronic Toxicity

Chronic toxicity is used to measure the acceptability of waters for supporting healthy marine biota until approved methods are developed to evaluate biological response. 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 for the chronic toxicity performance goal established in section 4.2 for Discharge Point 001. The chronic toxicity performance goal for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (b value) of 0.75 for the chronic toxicity methods in Attachment E. The null hypothesis (H_0) for the TST statistical approach is:

H_0 : 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.” Percent effect shall also be reported:

Percent Effect” (or Effect, in percent) = $[(\text{Control mean response} - \text{IWC mean response}) \div \text{Control mean response}] \times 100$

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 is set at the IWC for the discharge (0.42 percent effluent) and expressed in units of the TST statistical approach (“Pass” or “Fail”). All NPDES effluent monitoring for the performance goal shall be reported using the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (H_0) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01). The San Diego Water Board’s review of reported toxicity test results will include review of concentration-response patterns as appropriate (see section 4.3.6 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 final determination as to whether a toxicity test result is valid and may consult with the Discharger; USEPA; the State Water Board's Quality Assurance Officers; or the State Water Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP), as needed.

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

Abbreviation	Definition
40 CFR	Title 40 of the Code of Federal Regulations
AMEL*	Average Monthly Effluent Limitation
ASBS	Areas of Special Biological Significance
AWEL*	Average Weekly Effluent Limitation
Basin Plan	<i>Water Quality Control Plan for the San Diego Basin</i>
BAT	Best available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BHC*	Hexachlorocyclohexane, also known as HCH
BPJ	Best Professional Judgement
BPT	Best Practicable Treatment Control Technology
°C	Degrees Celsius
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIWQS	California Integrated Water Quality System
CWA	Clean Water Act
DBA	Doing Business As
DDT*	Dichlorodiphenyltrichloroethane
DDW	Division of Drinking Water
Discharger	Sapporo USA
Dm	Minimum Probable Initial Dilution Expressed as Parts Seawater per Part Wastewater
DMR	Discharge Monitoring Report
DNQ	Detected, But Not Quantified
EC25	Effects Concentration at 25 Percent
ELAP	Environmental Laboratory Accreditation Program
ELGs	Effluent Limitations, Guidelines and Standards
ELO	Escondido Land Outfall
eSMR	Electronic Self-Monitoring Reports
°F	Degrees Fahrenheit
Facility	Sapporo USA
GPD	Gallons Per Day
HARRF	Hale Avenue Resource Recovery Facility
HAS	Hydrologic Subarea
HCH*	Hexachlorocyclohexane, also known as BHC
H ₀	Hypothesis
IBCS	Industrial Brine Collection System
IUD	Industrial User Discharge
IWC*	“In-Stream” Waste Concentration
lbs/day	Pounds per Day
LC	Lethal Concentration

Abbreviation	Definition
LC50	Percent Waste Giving 50 Percent Survival of Test Organisms
MDEL *	Maximum Daily Effluent Limitation
MDL*	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
ML*	Minimum Level
ml	Milliliter
ml/L	Milliliter per Liter
MRP	Monitoring and Reporting Program
ND*	Not Detected
ng/L	Nanogram per Liter
NOEC	No-Observed-Effect-Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTU	Nephelometric Turbidity Unit
Ocean Plan	<i>Water Quality Control Plan for Ocean Waters of California, California Ocean Plan</i>
PAHs*	Polynuclear Aromatic Hydrocarbons
PCBs*	Polychlorinated Biphenyls
pCi/L	Picocuries per Liter
PMSD	Percent Minimum Significant Difference
POTW*	Publicly Owned Treatment Works
Ppt	Parts per Thousand
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RL	Reporting Level
RO	Reverse Osmosis
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 Waters Research Project
SEOO	San Elijo Ocean Outfall
SIC	Standard Industrial Classification
SMR	Self-Monitoring Report
SOPs	Standard Operating Procedures
SSM Rule	Sufficiently Sensitive Methods Rule
State Water Board	State Water Resources Control Board
TAC	Test Acceptability Criteria
TBELs	Technology-Based Effluent Limitations

Abbreviation	Definition
TCDD*	Tetrachlorodibenzodioxin
TIE*	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TRE*	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
µg/kg	Microgram per Kilogram
µg/L	Microgram per Liter
UM3	USEPA Modeling Application Visual Plumes
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
Water Code	California Water Code
WDRs	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WQBELs	Water Quality-Based Effluent Limitations
ZID	Zone of Initial Dilution

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

Part 2. – Glossary of Terms**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

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 wellbeing of man, plants, and wildlife. These uses of water serve to promote 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 *Water Quality Control Plan for the San Diego Basin* (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. [California Water Code section 13050(f)].

Best Management Practices

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. Best management practices (BMPs) also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

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.

Bioassay

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

Biosolids

Nutrient-rich organic materials resulting from the treatment of sewage sludge. When treated and processed, sewage sludge becomes biosolids which can be safely recycled and applied as fertilizer to sustainably improve and maintain productive soils and stimulate plant growth.

Brine

The byproduct of desalinated water having a salinity concentration greater than a desalination facility's intake source water.

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. Compliance with the effluent limitation for chronic toxicity in this Order is demonstrated by conducting chronic toxicity tests for the effluent.

The chronic toxicity performance goal is “Pass” or “Fail” and “Percent Effect” in this Order. The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” 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 “in-stream” waste concentration (IWC) response $\leq 0.75 \times$ Mean control response.

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. 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 on 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 a.m. through 11:59 p.m.) 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.

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

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

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.

Dilution Credit

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

Discharge of a Pollutant

Discharge of a pollutant means: any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or 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 Monitoring Reports

The DMRs means the Environmental Protection Agency (EPA) 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 EPA. EPA will supply DMRs to any approved state upon request. The EPA national forms may be modified to substitute the state agency name, address, logo, and other similar information, as appropriate, in place of EPA'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

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

Grab Sample

An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes. The sample is taken from a waste stream on a one-time basis without consideration of the flow rate of the waste stream and without consideration of time of day.

Halomethanes

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

Hexachlorocyclohexane

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

Indicator Bacteria

Includes total coliform bacteria, fecal coliform bacteria (or *E. coli*), and enterococcus bacteria.

Initial Dilution

The process which 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).

In-stream Waste Concentration (IWC)

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

Kelp Beds

Kelp beds are significant aggregations of marine algae of the genera *Macrocystis* and *Nereocystis*. Kelp beds include the total foliage canopy of *Macrocystis* and *Nereocystis* plants throughout the water column.

Mariculture

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

Material

In common usage: (1) the substance or substances of which a thing is made or composed or (2) substantial.

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.

Multiport Diffusers

Linear structures consisting of spaced ports or nozzles that are installed on submerged marine outfalls and enable rapid mixing, dispersal, and dilution of a discharge within a relatively small area.

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.

Nuisance

Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- Occurs during, or as a result of, the treatment or disposal of wastes.

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.

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 United States Code (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.

Polychlorinated biphenyls (PCB)

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.

Polynuclear aromatic hydrocarbons (PAH)

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.

Publicly Owned Treatment Works (POTW)

POTW means a treatment works as defined by section 212 of the federal Clean Water Act (CWA), which is owned by a state or municipality (as defined by section 502(4) of the federal CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the federal CWA, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

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 (ML)

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.

Salinity

A measure of the dissolved salts in a volume of water. Salinity shall be measured using a standard method approved by the Regional Water Board (e.g., Standard Method 2520 B, EPA Method 120.1, EPA Method 160.1) and reported in parts per thousand. For historical salinity data not recorded in parts per thousand, the Regional Water Board may accept converted data at their discretion.

Seawater

Salt water that is in or from the ocean. For implementation of Chapter III.M of the Ocean Plan, seawater includes tidally influenced waters in coastal estuaries and coastal lagoons and underground salt water beneath the seafloor, beach, or other contiguous land with hydrologic connectivity to the ocean.

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

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

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.

Tetrachlorodibenzodioxin (TCDD) Equivalents

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

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

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.

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.

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.

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 *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan), the *Water Quality Control Plan for Enclosed Bays and Estuaries of California* (Enclosed Bays and Estuaries Plan), and the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (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 are 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 Recycling

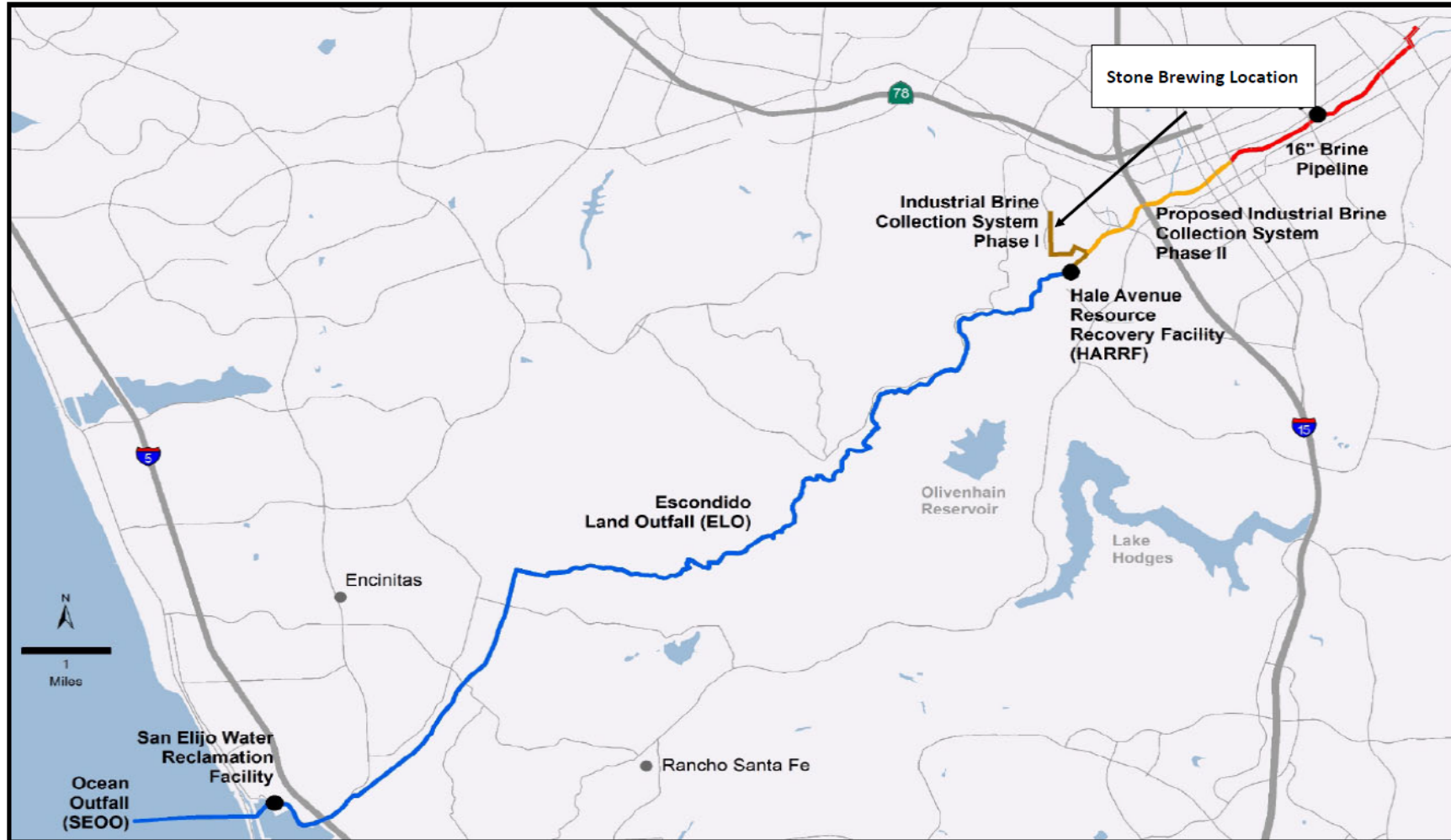
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

Water Quality Standards

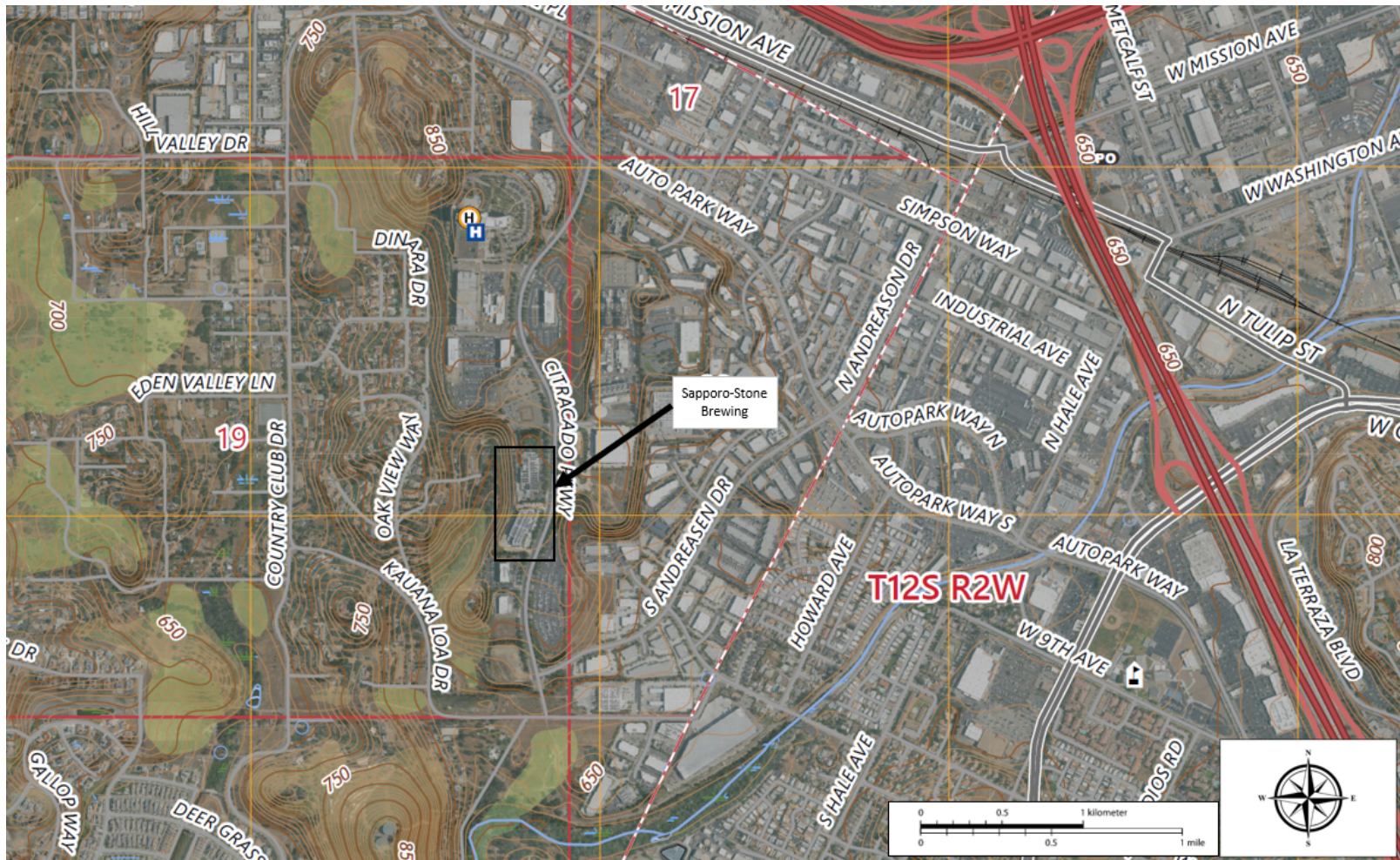
Provisions of State or federal law which consist of a designated use or uses for waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the 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 – MAPS

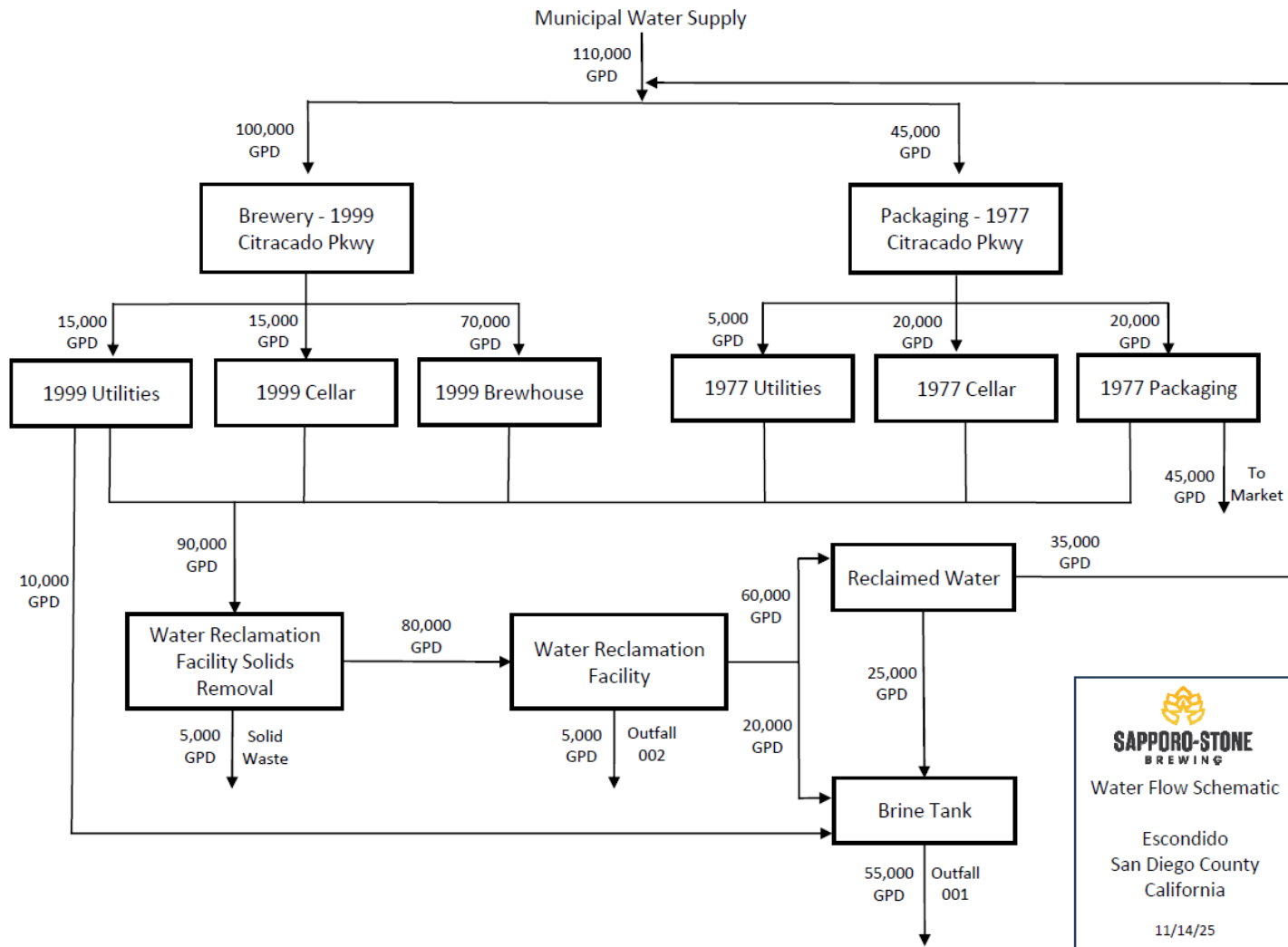
Map 1 – Sapporo USA, Pipeline, and Outfall Locations

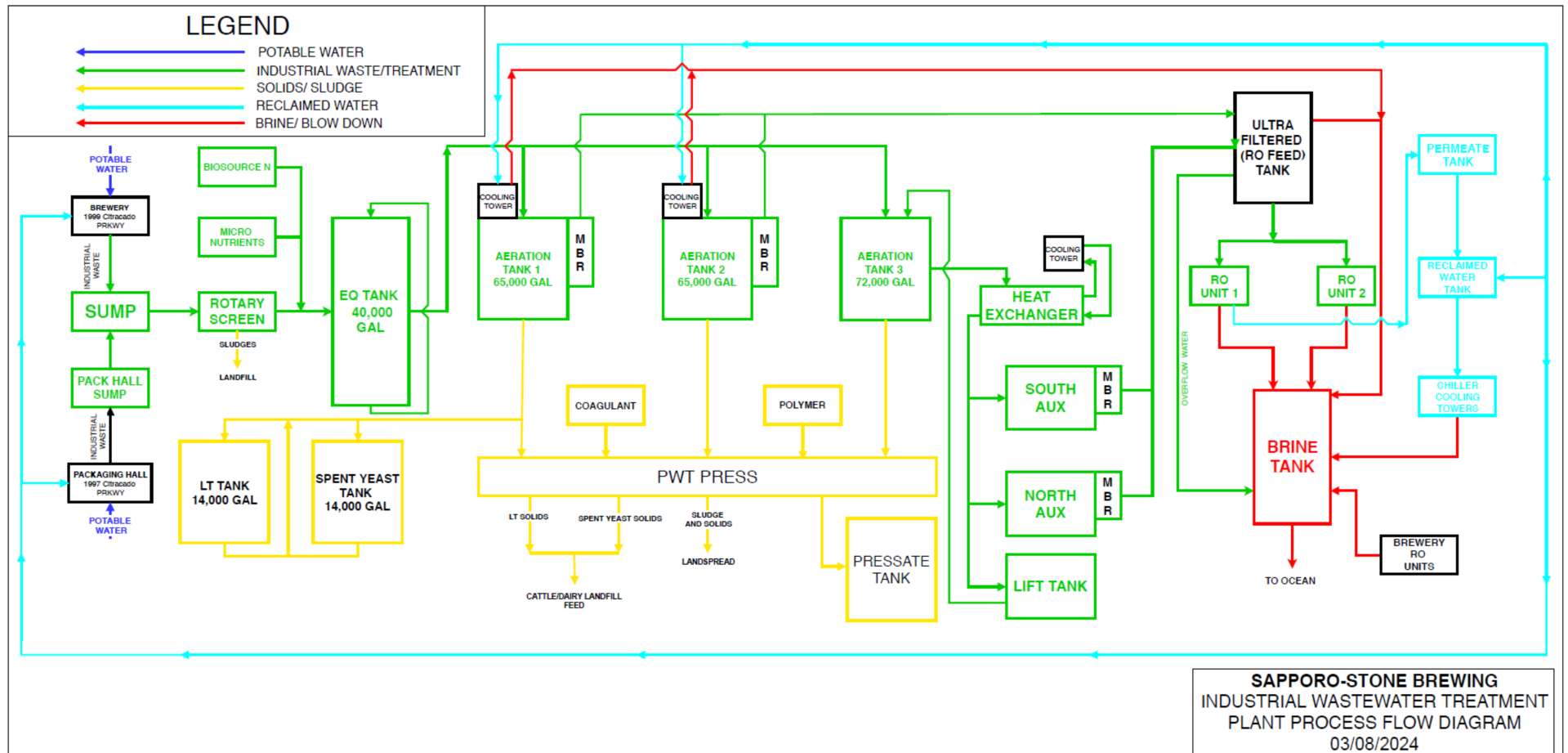


Map 2 – Sapporo USA Map



ATTACHMENT C – FLOW SCHEMATICS





ATTACHMENT D – STANDARD PROVISIONS**1 Standard Provisions – Permit Compliance****1.1 Duty to Comply**

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

1.2 Need to Halt or Reduce Activity Not a Defense

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

1.3 Duty to Mitigate

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

1.4 Proper Operation and Maintenance

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

1.5 Property Rights

- 1.5.1 This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR section 122.41(g).)
- 1.5.2 The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR section 122.5(c).)

1.6 Inspection and Entry

The Discharger shall allow the San Diego Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. section 1318(a)(4)(b); 40 CFR section 122.41(i); Water Code, sections 13267, 13383):

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

1.7 Bypass

1.7.1 Definitions

- 1.7.1.1 "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR section 122.41(m)(1)(i).)
- 1.7.1.2 "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR section 122.41(m)(1)(ii).)

1.7.2 Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR section 122.41(m)(2).)

1.7.3 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)):

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

- 1.7.3.2 There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR section 122.41(m)(4)(i)(B)); and
- 1.7.3.3 The Discharger submitted notice to the San Diego Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR section 122.41(m)(4)(i)(C).)
- 1.7.4 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 1.7.3 above. (40 CFR section 122.41(m)(4)(ii).)

1.7.5 Notice

- 1.7.5.1 **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the San Diego Water Board. As of December 21, 2028, all notices submitted in compliance with this section must be submitted electronically by the Discharger to the San Diego Water Board or initial recipient, as defined in 40 CFR section 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR section 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or required to do so by State law. (40 CFR section 122.41(m)(3)(i).)
- 1.7.5.2 **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). The notice shall be sent to the San Diego Water Board. As of December 21, 2028, all notices submitted in compliance with this section must be submitted electronically by the Discharger to the San Diego Water Board or initial recipient, as defined in 40 CFR section 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR section 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or required to do so by State law. (40 CFR section 122.41(m)(3)(i)).

1.8 Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset

does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR section 122.41(n)(1).)

- 1.8.1 Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR section 122.41(n)(2).)
- 1.8.2 Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR section 122.41(n)(3)):
- 1.8.2.1 An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR section 122.41(n)(3)(i));
 - 1.8.2.2 The permitted facility was, at the time, being properly operated (40 CFR section 122.41(n)(3)(ii));
 - 1.8.2.3 The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR section 122.41(n)(3)(iii)); and
 - 1.8.2.4 The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR section 122.41(n)(3)(iv).)
- 1.8.3 Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR section 122.41(n)(4).)

2 Standard Provisions – Permit Actions

2.1 General

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

2.2 Duty to Reapply

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

2.3 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.)

3 Standard Provisions – Monitoring

- 3.1 Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR section 122.41(j)(1).)
- 3.2 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:
 - 3.2.1 The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 - 3.2.2 The method has the lowest ML of the analytical methods approved under 40 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).)

4 Standard Provisions – Records

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

- 4.2.1 The date, exact place, and time of sampling or measurements (40 CFR section 122.41(j)(3)(i));
- 4.2.2 The individual(s) who performed the sampling or measurements (40 CFR section 122.41(j)(3)(ii));
- 4.2.3 The date(s) analyses were performed (40 CFR section 122.41(j)(3)(iii));
- 4.2.4 The individual(s) who performed the analyses (40 CFR section 122.41(j)(3)(iv));
- 4.2.5 The analytical techniques or methods used (40 CFR section 122.41(j)(3)(v)); and
- 4.2.6 The results of such analyses. (40 CFR section 122.41(j)(3)(vi).)
- 4.3 Claims of confidentiality for the following information will be denied (40 CFR section 122.7(b)):
 - 4.3.1 The name and address of any permit applicant or Discharger (40 CFR section 122.7(b)(1)); and
 - 4.3.2 Permit applications and attachments, permits and effluent data. (40 CFR section 122.7(b)(2).)

5 Standard Provisions – Reporting

5.1 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.)

5.2 Signatory and Certification Requirements

- 5.2.1 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 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR section 122.41(k).)
- 5.2.2 All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with

environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 CFR section 122.22(a)(1).)

- 5.2.3 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 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- 5.2.3.1 The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 CFR section 122.22(b)(1));
- 5.2.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR section 122.22(b)(2)); and
- 5.2.3.3 The written authorization is submitted to the San Diego Water Board and State Water Board. (40 CFR section 122.22(b)(3).)
- 5.2.4 If an authorization under Standard Provisions – Reporting 5.2.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5.2.3 above must be submitted to the 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).)
- 5.2.5 Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:
- “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 CFR section 122.22(d).)
- 5.2.6 Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically

shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR section 122.22(e).)

5.3 Monitoring Reports

- 5.3.1 Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E). (40 CFR section 122.41(l)(4).)
- 5.3.2 Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the 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 5.10 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).)
- 5.3.3 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).)
- 5.3.4. 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).)

5.4 Compliance Schedules

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

5.5 Twenty-Four-Hour Reporting

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

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e.,

combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2028, 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 5.10. 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).)

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

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

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

5.5.3 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).)

5.6 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)):

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

5.6.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels 7.1.1). (40 CFR section 122.41(l)(1)(ii).)

5.7 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).)

5.8 Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 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).)

5.9 Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the 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).)

5.10 Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 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).)

6 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.

7 Additional Provisions – Notification Levels for Non-Municipal Facilities

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 CFR section 122.42(a)):

- 7.1 That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR section 122.42(a)(1)):
 - 7.1.1 100 micrograms per liter (µg/L) (40 CFR section 122.42(a)(1)(i));
 - 7.1.2 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4 dinitrophenol and 2 methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR section 122.42(a)(1)(ii));

- 7.1.3 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
- 7.1.4 The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR section 122.42(a)(1)(iv).)
- 7.2 That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR section 122.42(a)(2)):
 - 7.2.1 500 micrograms per liter ($\mu\text{g/L}$) (40 CFR section 122.42(a)(2)(i));
 - 7.2.2 1 milligram per liter (mg/L) for antimony (40 CFR section 122.42(a)(2)(ii));
 - 7.2.3 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
 - 7.2.4 The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR section 122.42(a)(2)(iv).)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), 122.41(j) through (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) section 13383 also authorizes 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 Monitoring and Reporting Program (MRP) establishes conditions for Sapporo USA (Discharger) to conduct routine or episodic self-monitoring of the discharges regulated under this Order at specified effluent and receiving water monitoring locations. This 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 this 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. This 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:

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

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.

- Core monitoring consists of the basic site-specific monitoring necessary to measure compliance with individual effluent limitations 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.
- 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 this MRP does not specifically address regional monitoring, the San Diego Water Board may allow relief from aspects of core monitoring components to encourage participation pursuant to section 5 of this MRP.

- 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.

1 General Monitoring Provisions

- 1.1 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 2. 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.
- 1.2 All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All 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. 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.
- 1.3 Monitoring must be conducted according to USEPA test procedures approved at 40 CFR part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the CWA as amended, or an alternative test procedure (ATP) approved by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136.
- 1.4 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 part 136, an ATP approved by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136. The Discharger must include laboratory quality assurance and quality control (QA/QC) 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 Water Code section 13176. Additional information on ELAP can be accessed at:
http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml.

- 1.5 Records of monitoring information shall include information required under Standard Provision, Attachment D, section 4.
- 1.6 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. The same frequency shall be maintained for analyzing spiked samples. The Discharger shall have a success rate equal to or greater than 80 percent.
- 1.7 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, 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.
- 1.8 The Discharger shall ensure that analytical procedures used to evaluate compliance with effluent limitations or performance goals established in this Order use minimum levels (MLs) no greater than the applicable effluent limitations or performance goals and are consistent with the requirements of the Ocean Plan and 40 CFR part 136, or otherwise approved and authorized by the San Diego Water Board. If no authorized ML value is below the effluent limitation or performance goal, then the method must achieve an ML no greater than the lowest ML value provided in the Ocean Plan, 40 CFR part 136, or any combination of both.
- 1.9 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. The Executive Officer is authorized to modify the provisions of this MRP in accordance with applicable law. Unless otherwise indicated by this MRP, if the Discharger wishes to modify any monitoring requirements specified in this MRP, then the Discharger shall submit a written request to the San Diego Water Board Executive Officer and USEPA Water Division Director for review and approval. The Executive Officer and USEPA Water Division Director may approve the request to modify this MRP in accordance with applicable law.
- 1.10 Section 3.2 of the Standard Provisions (Attachment D) includes the standard provisions for test procedures. USEPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. For the purposes of the NPDES program, when more than one test procedure is approved under 40 CFR part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR sections 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 CFR sections 122.21(e)(3) and 122.44(i)(1)(iv) apply to the selection of a sufficiently sensitive analytical method for the purposes of monitoring and reporting under NPDES permits, including review of permit applications. A USEPA-approved analytical method is sufficiently sensitive where:

- The Minimum Level (reported ML, also known as the Reporting Level, or RL) is at or below both the level of the applicable water quality criterion/objective and this Order's limitation for the measured pollutant or pollutant parameter; or
- In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- The method has the lowest ML of the USEPA-approved analytical methods where none of the USEPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

The MLs in Ocean Plan Appendix II remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the Ocean Plan. For instance, USEPA Method 1631E for mercury is not currently listed in Ocean Plan Table II, but it is published with an ML of 0.5 nanograms per liter (ng/L) that makes it a sufficiently sensitive analytical method. Similarly, USEPA Method 245.7 for mercury is published with an ML of 5 ng/L.

2 Monitoring Locations

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

Table E-1 Monitoring Station Locations

Discharge Point Name	Monitoring Location Name Monitoring	Monitoring Location Description
001	EFF-001	At a location downstream of any in-plant return flows and disinfection units, before combining with other wastewaters from the City of Escondido Industrial Brine Collection System, other wastewaters in the Escondido Land Outfall line, or other wastewater in the San Elijo Ocean Outfall, where a representative sample can be obtained.

3 Core Monitoring Requirements

3.1 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:

- Does the effluent comply with permit effluent limitations, performance goals, and other requirements of this Order?
- What is the mass of constituents that are discharged daily, monthly, or annually?
- Is the effluent concentration or mass changing over time?
- Is Sapporo USA (Facility) being properly operated and maintained to ensure compliance with the conditions of this Order?

The Discharger shall monitor the effluent at Monitoring Location EFF-001 as described in Table E-2 below.

Table E-2 Effluent Monitoring (Monitoring Location EFF-001)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Recorder/ Totalizer	Continuous	--
Temperature	°F	Grab	2/Year	1
Total Dissolved Solids (TDS)	mg/L	24-hour Composite	1/Month	1
Oil and Grease ²	mg/L	Grab	1/Month	1
Total Suspended Solids (TSS) ²	mg/L	24-hour Composite	1/Month	1
Settleable Solids	ml/L	Grab	1/Month	1
Turbidity	NTU	24-hour Composite	1/Month	1
pH	standard units	Grab	1/Month	1
Arsenic, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Cadmium, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Chromium (VI), Total Recoverable ^{2,3}	µg/L	24-hour Composite	2/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Copper, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Lead, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Mercury, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Nickel, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Selenium, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Silver, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Zinc, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Cyanide, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1,4
Chlorine, Total Residual ^{2,5}	µg/L	Grab	2/Year	1
Ammonia Nitrogen, Total (as N) ²	mg/L	24-hour Composite	2/Year	1
Chronic Toxicity	"Pass" / "Fail"	24-hour Composite	2/Year	6
Phenolic Compounds (nonchlorinated) ^{2,7}	µg/L	24-hour Composite	2/Year	1
Phenolic Compounds (chlorinated) ^{2,7}	µg/L	24-hour Composite	2/Year	1
Endosulfan ^{1,2}	µg/L	24-hour Composite	2/Year	1
Endrin ²	µg/L	24-hour Composite	2/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hexachlorocyclohexane (HCH or BHC) ^{2,7}	µg/L	24-hour Composite	2/Year	1
Radioactivity	pCi/L	24-hour Composite	2/Year	1
Acrolein ²	µg/L	Grab	2/Year	1
Antimony, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Bis (2-chloroethoxy) Methane ²	µg/L	24-hour Composite	2/Year	1
Bis (2-chloroisopropyl) Ether ²	µg/L	24-hour Composite	2/Year	1
Chlorobenzene ²	µg/L	Grab	2/Year	1
Chromium (III), Total Recoverable ^{2,3}	µg/L	24-hour Composite	2/Year	1
Di-n-butyl Phthalate ²	µg/L	24-hour Composite	2/Year	1
Dichlorobenzenes ^{2,7}	µg/L	Grab	2/Year	1
Diethyl Phthalate ²	µg/L	24-hour Composite	2/Year	1
Dimethyl Phthalate ²	µg/L	24-hour Composite	2/Year	1
4,6-dinitro-2-methylphenol ²	µg/L	24-hour Composite	2/Year	1
2,4-dinitrophenol ²	µg/L	24-hour Composite	2/Year	1
Ethylbenzene ²	µg/L	Grab	2/Year	1
Fluoranthene ²	µg/L	24-hour Composite	2/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hexachlorocyclopentadiene ²	µg/L	24-hour Composite	2/Year	1
Nitrobenzene ²	µg/L	24-hour Composite	2/Year	1
Thallium, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Toluene ²	µg/L	Grab	2/Year	1
Tributyltin ²	µg/L	24-hour Composite	2/Year	1
1,1,1-trichloroethane ²	µg/L	Grab	2/Year	1
Acrylonitrile ²	µg/L	Grab	2/Year	1
Aldrin ²	µg/L	24-hour Composite	2/Year	1
Benzene ²	µg/L	Grab	2/Year	1
Benzidine ²	µg/L	24-hour Composite	2/Year	1
Beryllium, Total Recoverable ²	µg/L	24-hour Composite	2/Year	1
Bis (2-chloroethyl) Ether ²	µg/L	24-hour Composite	2/Year	1
Bis (2-ethylhexyl) Phthalate ²	µg/L	24-hour Composite	2/Year	1
Carbon Tetrachloride ²	µg/L	Grab	2/Year	1
Chlordane ^{2,7}	µg/L	24-hour Composite	2/Year	1
Chlorodibromomethane (Dibromochloromethane) ²	µg/L	Grab	2/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chloroform ²	µg/L	Grab	2/Year	1
Dichlorodiphenyltrichloroethane (DDT) ^{2,7}	µg/L	24-hour Composite	2/Year	1
1,4-dichlorobenzene ²	µg/L	Grab	2/Year	1
3,3'-dichlorobenzidine ²	µg/L	24-hour Composite	2/Year	1
1,2-dichloroethane ²	µg/L	Grab	2/Year	1
1,1-dichloroethylene ²	µg/L	Grab	2/Year	1
Dichlorobromomethane ²	µg/L	Grab	2/Year	1
Dichloromethane (Methylene Chloride) ²	µg/L	Grab	2/Year	1
1,3-dichloropropene (1,3-Dichloropropylenes) ²	µg/L	Grab	2/Year	1
Dieldrin ²	µg/L	24-hour Composite	1/Month	1
2,4-dinitrotoluene ²	µg/L	24-hour Composite	2/Year	1
1,2-diphenylhydrazine ²	µg/L	24-hour Composite	2/Year	1
Halomethanes ^{2,7}	µg/L	Grab	2/Year	1
Heptachlor ²	µg/L	24-hour Composite	2/Year	1
Heptachlor Epoxide ²	µg/L	24-hour Composite	2/Year	1
Hexachlorobenzene ²	µg/L	24-hour Composite	2/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hexachlorobutadiene ²	µg/L	24-hour Composite	2/Year	1
Hexachloroethane ²	µg/L	24-hour Composite	2/Year	1
Isophorone ²	µg/L	24-hour Composite	2/Year	1
N-nitrosodimethylamine ²	µg/L	24-hour Composite	2/Year	1
N-nitrosodi-N-propylamine ²	µg/L	24-hour Composite	2/Year	1
N-nitrosodiphenylamine ²	µg/L	24-hour Composite	2/Year	1
Polynuclear Aromatic Hydrocarbons (PAHs) ^{2,7}	µg/L	24-hour Composite	2/Year	1
Polychlorinated Biphenyls (PCBs) ^{2,7}	µg/L	24-hour Composite	2/Year	1
Tetrachlorodibenzodioxin (TCDD) equivalents ^{2,7}	µg/L	24-hour Composite	1/Month	1
1,1,2,2-tetrachloroethane ²	µg/L	Grab	2/Year	1
Tetrachloroethylene Tetrachloroethene) ²	µg/L	Grab	2/Year	1
Toxaphene ²	µg/L	24-hour Composite	2/Year	1
Trichloroethylene ²	µg/L	Grab	2/Year	1
1,1,2-trichloroethane ²	µg/L	Grab	2/Year	1
2,4,6-trichlorophenol ²	µg/L	24-hour Composite	2/Year	1
Vinyl Chloride ²	µg/L	Grab	2/Year	1

Notes for Table E-2

- 1 As required under 40 CFR part 136.
- 2 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 6.11.
- 3 The Discharger may apply 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).
- 4 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, the parameter 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.
- 5 Monitoring of total chlorine residual is not required on days when none of the treatment units that are subject to this Order use chlorine for disinfection. If only one sample is collected for total chlorine residual analysis on a particular day, that sample must be collected at the time when the concentration of total chlorine residual in the discharge would be expected to be greatest. The times and duration of chlorine discharges on the days that samples are collected, and the time at which samples are collected, shall be reported.
- 6 As specified in section 6.12 and section 3.2 of this MRP (Attachment E). Chronic toxicity results shall be reported as "Pass" or "Fail." Chronic toxicity results shall also include "Percent Effect."
- 7 See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

3.2 Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (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 1) the 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) the 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:

- Does the effluent comply with effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water?

- If the effluent does not comply with effluent limitations for toxicity, are unmeasured pollutants causing risk to aquatic life?
- If the effluent does not comply with effluent limitations for toxicity, are pollutants in combinations causing risk to aquatic life?

3.2.1 Discharge In-stream Waste Concentration for Chronic Toxicity

The chronic toxicity instream waste concentration (IWC) is calculated by dividing 100 percent by the dilution credit. The chronic toxicity IWC is 0.42 percent effluent based on a dilution credit of 237.

3.2.2 Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. Sufficient sample volume of the effluent 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.

3.2.3 Chronic Toxicity of Marine Species and Test Methods

If the receiving water has a salinity greater than one part per thousand (ppt), the Discharger shall conduct the chronic toxicity tests described below using effluent samples at the IWC (0.42 percent effluent). Species and test methods must be 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). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall the Discharger substitute a species with another test species unless the San Diego Water Board provides written authorization to the Discharger.

- 3.2.3.1 Static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0). If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing and the San Diego Water Board provides authorization to the Discharger, the Discharger may conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.0), in accordance with 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).
- 3.2.3.2 Static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*; the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0 or Larval Development Test Method); or the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method). If laboratory-held cultures of the named invertebrates are not available for testing and the San Diego Water Board provides authorization to the Discharger, the Discharger may

use an alternative toxicity test for an invertebrate species listed in Table III-1 of the Ocean Plan.

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

3.2.4 Species Sensitivity Screening

Species sensitivity screening shall be conducted during this Order's first required sample collection, or within 24 months of most recent (re)screening, whichever is later.

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 during species sensitivity screening shall be used for routine monitoring. If only one species fails, then that species shall be used for routine monitoring. Likewise, if two or more species result in "Fail," then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring.

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.

Species sensitivity rescreening is required every 24 months of the most recent sensitivity (re)screening. The Discharger shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species.

The species used during routine monitoring shall be the most sensitive species from the most recent species sensitivity (re)screening. If laboratory-held cultures of the most sensitive species are not available for testing during routine monitoring and the San Diego Water Board provides authorization, the Discharger may use an alternative species. The alternative species must be a species that appears in Table III-1 of the Ocean Plan and should be the same type of organism (vertebrate, invertebrate, or algae) as the current most sensitive species used for routine monitoring.

Toxicity tests used to determine the most sensitive test species shall be reported as effluent monitoring results for the chronic toxicity maximum daily performance goal.

3.2.5 Quality Assurance and Additional Requirements

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

- 3.2.5.1 The discharge is subject to a “Pass” or “Fail” determination for a chronic toxicity maximum daily performance goal 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:

$$\text{Mean discharge IWC response} \leq 0.75 \times \text{Mean control response}$$

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 differs from the control). 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: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$.

- 3.2.5.2 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.
- 3.2.5.3 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.
- 3.2.5.4 Reference toxicant testing shall be conducted 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). Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). All reference

toxicant test results should be reviewed and reported using the effects concentration at 25 percent (EC25).

- 3.2.5.5 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).

3.2.6 Reporting

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

- 3.2.6.1 The valid toxicity test results for the TST statistical approach, is 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 monitoring period shall be reported on the SMR due date specified in Table E-3.
- 3.2.6.2 Summary water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- 3.2.6.3 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.
- 3.2.6.4 Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- 3.2.6.5 Graphical plots that clearly show 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.
- 3.2.6.6 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.

3.2.7 Preparation of an Initial Toxicity Reduction Evaluation (TRE) Work Plan

Within 90 days of the effective date of this Order, the Discharger shall prepare and submit a copy of the Discharger's Initial toxicity reduction evaluation (TRE) Work Plan to the San Diego Water Board for approval. If the San Diego Water Board does not disapprove the Initial TRE Work Plan within 60 days of submittal, the Initial TRE 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 Initial TRE Work Plan shall describe the steps that the Discharger intends to follow if toxicity is detected and be of adequate detail

to allow the Discharger to immediately initiate a TRE. The Initial TRE Work Plan shall include, at a minimum:

- 3.2.7.1 A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program.
- 3.2.7.2 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 Facilities.
- 3.2.7.3 A description of the evaluation process to be used to determine if implementation of a more detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) is necessary.
- 3.2.7.4 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).

3.2.8 Accelerated Monitoring Schedule

When a Maximum Daily performance goal is exceeded during routine toxicity monitoring, the Discharger shall initiate accelerated monitoring as required below.

Once the Discharger becomes aware of a maximum daily performance goal exceedance, 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. 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 six accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result.

The accelerated monitoring schedule shall consist of six toxicity tests, conducted at approximately two-week intervals, over a 12-week period. The toxicity tests shall use the same test species and the same toxicity test methods that triggered the maximum daily performance goal exceedance.

If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If any of the accelerated toxicity tests results in "Fail," the Discharger shall immediately cease accelerated monitoring and implement the TRE/TIE Implementation conditions set forth below.

If there is evidence of a pattern of effluent toxicity, the San Diego Water Board may require the Discharger to initiate the TRE/TIE Implementation.

3.2.9 TRE/TIE Implementation

During TRE/TIE implementation, effluent monitoring shall resume and TST results ("Pass" or "Fail" and "Percent Effect") for chronic toxicity tests shall be reported as effluent monitoring results for the chronic toxicity performance goal

3.2.9.1 Detailed TRE Work Plan. After receiving a result demonstrating a maximum daily performance goal exceedance during accelerated monitoring, the Discharger shall immediately notify the San Diego Water Board when the Discharger becomes aware of the results and initiate a TRE following the approved Initial TRE Workplan. Within 15 days, the Discharger must submit a Detailed TRE Work Plan to the San Diego Water Board. If the San Diego Water Board does not disapprove the Detailed TRE Work Plan within 15 days, the Detailed TRE Work Plan shall become effective. The Detailed TRE Work Plan shall follow the Initial TRE Work Plan and be revised as appropriate for this toxicity event. It shall include the following revised information from the Initial TRE Work Plan:

- 3.2.9.1.1 Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
- 3.2.9.1.2 Further actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
- 3.2.9.1.3 A schedule for these actions, the submittal of update notifications, the submittal of progress reports, and the submittal of the final report.
- 3.2.9.1.4 At the discretion of the San Diego Water Board, the Discharger may provide additional conditions to the Detailed TRE Work Plan which may include, but is not limited to, revisions to the schedule, additional chronic toxicity monitoring, and/or implementation of a TIE.

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

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.

3.2.9.3 TRE/TIE Notification and Reporting.

- 3.2.9.3.1 Prior to the completion of the TRE/TIE, the Discharger shall provide update notifications consistent with the schedule submitted with the Detailed TRE/TIE Workplan in effect. Status updates shall indicate which TRE/TIE steps are underway and which steps have been completed.
- 3.2.9.3.2 The Discharger shall notify the San Diego Water Board of the completion of the TRE/TIE within 14 days of its completion and provide a final report of the results and findings set forth by the conditions below.
- 3.2.9.3.3 TRE/TIE Progress and Final Reports. Consistent with the schedule submitted with the Detailed TRE/TIE Workplan in effect for progress reports, and within 30 days of completion of the TRE/TIE for final reports, the Discharger shall submit the reports of the TRE/TIE Implementation that include, at minimum:
 - 3.2.9.3.3.1 A summary of the findings.
 - 3.2.9.3.3.2 Statistical program output results, including graphical plots, for each toxicity test
 - 3.2.9.3.3.3 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.
 - 3.2.9.3.3.4 Quality assurance/quality control (QA/QC) documentation or any additional chronic toxicity-related information
 - 3.2.9.3.3.5 A list of or update to corrective actions taken or planned to achieve consistent compliance with the toxicity performance goal of this Order and to prevent recurrence of exceedances of the performance goal.
 - 3.2.9.3.3.6 A time schedule for implementation of any planned corrective actions.
 - 3.2.9.3.3.7 The Discharger must implement any planned corrective actions detailed in the TRE/TIE reports in accordance with the specified time schedule, unless otherwise directed by the San Diego Water Board. The corrective actions and time schedule may be modified at the direction of the San Diego Water Board.
- 3.2.9.4 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 unless otherwise directed by the San Diego Water Board.
- 3.2.9.5 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. The TRE may be ended at any stage if routine monitoring finds there is no longer toxicity and approved by the San Diego Water Board.

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

4 Receiving Water Monitoring Requirements

The City of Escondido and San Elijo Joint Powers Authority conduct receiving water monitoring for their individual discharges to the San Elijo Ocean Outfall (SEOO). The receiving water monitoring is designed to measure the effects of the SEOO 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 conformance 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 Escondido and San Elijo Joint Powers Authority as they become available on the State Water Board website at <http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportEsmrAtGlanceServlet?iCommand=reset>

5 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 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.

5.1 Kelp bed canopy monitoring requirements

Kelp consists of several 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 the kelp beds is necessary to answer the following questions:

- (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 Escondido and San Elijo Joint Powers Authority participate, for their individual discharges to the San Elijo Ocean Outfall, 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 conformance 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>.

5.2 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.

6 Reporting Requirements

6.1 General Monitoring and Reporting Requirements

- 6.1.1 The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 6.1.2 The Discharger shall report all instances of noncompliance not reported under sections 5.5, 5.7, and 5.8 of the Standard Provisions (Attachment D) at the time monitoring reports are submitted.

6.2 Self-Monitoring Reports

- 6.2.1 The Discharger shall electronically submit self-monitoring reports (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 5 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.

- 6.2.2 The Discharger shall report in the SMR the results for all monitoring specified in this MRP under section 3. 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.
- 6.2.3 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.
Weekly (1/Week)	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling.
Monthly (1/Month)	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.
Semiannually (2/Year)	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 1 February 1

- 6.2.4 Reporting Protocols.** The Discharger shall report with each sample result the applicable reported ML (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:

6.2.4.1 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).

6.2.4.2 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.

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

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

6.2.5 Compliance Determination. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above, in section 6, and in Attachment A . 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 Minimum Level (ML).

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

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

6.2.6.2 The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or

DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

- 6.2.7 The Discharger shall submit SMRs in accordance with the following requirements:
- 6.2.7.1 The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with the 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.
- 6.2.7.2 The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements and performance goal exceedances; discuss corrective actions taken or planned; and provide the proposed time schedule for corrective actions. Identified violations and performance goal exceedances must include a description of the requirement that was violated/exceeded and a description of the violation/exceedance.
- 6.2.7.3 The Discharger shall add all violations, including violations of limitations, to CIWQS under the "Violations" tab.

6.3 Discharge Monitoring Reports

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

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

6.4 Other Reports

The following reports are required under its referenced requirement location and/or the California Code of Regulations. The reports shall be submitted to the San Diego Water Board using the State Water Board's CIWQS program website, unless otherwise noted. The CIWQS website will provide additional information for SMR submittal in the event of a planned or unplanned service interruption for electronic submittal. The reports must be signed and certified as required by section 5 of the Standards Provisions (Attachment D).

Table E-4 Other Reports

Report	Location of requirement	Due Date
Report of Waste Discharge (for reissuance)	Page 1	No later than 180 days before the expiration date of this Order
Performance Goal Exceedance Investigation Work Plan	Section 4.2	By direction of the San Diego Water Board if exceedances of performance goals persist
Performance Goal Exceedance Report	Section 4.2	As specified in the Performance Goal Exceedance Investigation Work Plan
Initial TRE Work Plan	Section 3.2.7 of this MRP	Within 90 days after adoption of this Order
Detailed TRE Work Plan	Section 3.2.9 of this MRP	Within 15 days of receiving validated accelerated monitoring results exceeding performance goals

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ATTACHMENT F – FACT SHEET

As described in section 2.2, the 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 that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections not specifically identified as “not applicable” are fully applicable to this Discharger.

1 Permit Information

The following table summarizes administrative information related to the facility.

Table F-1 Facility Information

Type of Information	Facility/Discharger Information
WDID	9 000002380
Discharger	Sapporo USA
Name of Facility	Sapporo USA
Facility Address	1999 Citracado Parkway
Facility Address	Escondido, CA 92029
Facility Address	San Diego County
Facility Contact, Title and Phone	Nicole Williams, Senior Director of Brewing Operations, nicole.williams@sapporo-brewing.com , (760) 294-7899 ext. 1473 Charlie Arnold, Senior Manager of Sustainability & Water Operations, charlie.arnold@sapporo-stonebrewing.com , (760) 294-7899 ext. 1452
Authorized Person to Sign and Submit Reports	Nicole Williams, Senior Director of Brewing Operations, nicole.williams@sapporo-brewing.com , (760) 294-7899 ext. 1473
Mailing Address	Sapporo USA Raymond Gallenberg 4300 Williamsburg Avenue Richmond, VA 23231
Billing Address	Sapporo USA Charlie Arnold 1999 Citracado Parkway Escondido, CA 92029
Type of Facility	Industrial facility, SIC Code No. 2082
Major or Minor Facility	Minor

Threat to Water Quality	3
Complexity	B
Pretreatment Program	No
Recycling Requirements	None
Facility Permitted Flow	0.10 million gallons per day (MGD)
Facility Design Flow	The Facility has an industrial waste pre-treatment and water reclamation facility capable of treating about 120,000 gallons per day (gpd) of brewery wastewater.
Watershed	Pacific Ocean
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

- 1.1 Sapporo USA (Discharger) is the owner and operator of Sapporo USA (Facility), a brewery located at 1999 Citracado Parkway in Escondido, CA.

The Discharger was formerly Liquid Stone Holdings, LLC and the Facility was formerly Stone Brewing Co. LLC. By email dated May 22, 2026, the Discharger notified the San Diego Water Board that Sapporo USA assumed operations of the Facility on May 15, 2026. The Discharger stated that discharger and facility name is Sapporo USA; however, the owner is still Liquid Stone Holdings, LLC.

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

- 1.2 The Facility discharges brine wastewater and cooling tower blowdown to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by R9-2018-0063, NPDES No. CA0109258, *Waste Discharge Requirements for Liquid Stone Holdings, LLC DBA Stone Brewing Co. Discharge to the Pacific Ocean Through the San Elijo Ocean Outfall* (Previous Order) adopted on October 10, 2018, and expired on November 30, 2023. Attachment B provides a map of the area around the Facility. Attachment C provides flow schematics of the Facility.
- 1.3 The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on June 1, 2023. Supplemental information was received on August 15, 2023. The application was deemed complete on August 18, 2023. A site visit was conducted on December 1, 2025, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.
- 1.4 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, page one limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

2 Facility Description

2.1 Description of Wastewater Treatment and Controls

The Facility is a brewery located at 1999 Citracado Parkway in Escondido, California. The Facility includes an industrial waste pretreatment and water reclamation system that currently treats up to 120,000 gallons per day (GPD) of the following industrial wastewater produced at the Facility to a level suitable for reuse within the Facility:

- Residual liquid waste from the brewing process
- Wash down and cleaning of brewery tanks (clean-in-place)
- Wash water from bottling/canning/kegging operations
- General housekeeping hose water

The industrial waste pretreatment and water reclamation system includes a sump, a 250-micron rotary drum screen, an equalization tank, three aeration tanks with submerged membrane bioreactors (MBRs) with a 0.04-micron rating, ultra-filtered tank (reverse osmosis [RO] feed water), and two RO units.

Compressed air from the rotary and turbo blowers is supplied to the aeration tanks and MBRs. The brine wastewater from the RO units is discharged to the brine tank, along with the brine wastewater from the potable water treatment system and cooling tower blowdown.

From the ultra-filtered tank, the RO feed water can either bypass the RO units to the brine tank or can be sent to the City of Escondido's sanitary sewer system. However, to the extent possible, the Facility maximizes use of the RO units to provide reclaimed water for reuse within the Facility.

RO permeate water is further treated with sodium hypochlorite for disinfection, sodium hydroxide for pH adjustment to maintain stability for reuse within the Facility for brewery housekeeping, boiler supply, and cooling tower supply. Water reuse within the Facility is not subject to any requirements from the San Diego Water Board.

The City of Escondido owns and operates the City of Escondido's Industrial Brine Collection System (IBCS) and issued the Discharger Industrial User Discharge (IUD) Permit No. 11017 to discharge to the ICBS. Up to 100,000 GPD of the brine wastewater and cooling tower blowdown is discharged to the IBCS, which connects to the Escondido Land Outfall (ELO), the San Elijo Ocean Outfall (SEOO), and the Pacific Ocean.

All brewery waste streams are kept separate from the domestic wastewater system. The Facility's domestic wastewater is discharged directly to the City of Escondido's sanitary sewer system through a separate plumbing and lateral connection. Under emergency conditions, industrial wastewater can also be diverted from the sump by gravity conditions to the City of Escondido's sanitary sewer system.

The industrial waste pretreatment and water reclamation system generates solid waste from the rotary screen and the aeration tanks. The activated sludge solids are dewatered by a volute dewatering press. These solids are removed by the City of Escondido franchised refuse service Escondido Disposal Company and transferred to a regional facility.

2.2 Discharge Points and Receiving Waters

The flow from the Facility, Palomar Energy Center, and the City of Escondido's proposed Membrane Filtration/Reverse Osmosis (MFRO) Facility commingle in the IBCS. All flows in the IBCS are either conveyed directly into the ELO or directed to a 2-million-gallon storage pond at the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) for controlled release into the ELO at a later time. Treated wastewater from HARRF and wastes from the IBCS flows through the ELO approximately 14 miles in a southwesterly direction, generally following Escondido Creek, to the SEOO.

The SEOO is co-owned by the San Elijo Joint Powers Authority and the City of Escondido, which own 21 percent and 79 percent of the capacity, respectively. The SEOO begins at a point approximately 2,200 feet south of the mouth of the San Elijo Lagoon, where treated wastewater from the HARRF and wastes from the IBCS merge with treated wastewater from the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility. The SEOO extends into the Pacific Ocean, where the inshore end of a diffuser is located approximately 6,800 feet offshore at a depth of approximately 110 feet. The diffuser, which is collinear with the outfall, is approximately 1,200 feet in length and extends to a depth of approximately 148 feet. The terminus of the diffuser (i.e., Discharge Point No. 001) is located at Latitude 33° 00' 21" North and Longitude 117° 18' 09" West.

2.3 Summary of Existing Requirements and SMR Data

Table F-2 includes the effluent limitations from the Previous Order, and representative monitoring data from December 2018 to November 2025.

Table F-2 Historical Effluent Limitations and Monitoring Data

Parameter	Units	Average Monthly	Average Weekly	Instantaneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Instantaneous Maximum Discharge
Oil and Grease	mg/L	25	40	75	20.9	20.9	20.9
Oil and Grease	lbs/day	20.9	33.4	62.6	5.08	5.08	5.08

Parameter	Units	Average Monthly	Average Weekly	Instantaneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Instantaneous Maximum Discharge
TSS	mg/L	60	--	--	33	--	--
TSS	lbs/day	50	--	--	9.4	--	--
Settleable Solids	ml/L	1.0	1.5	3.0	0.20	0.2	0.2
Turbidity	NTU	75	100	225	20	20	20
pH	standard units	--	--	6.0 to 9.0 ¹	--	--	6.62 to 8.71 ¹

Notes for Table F-2

1 Minimum and maximum value.

2.4 Compliance Summary

As of January 8, 2026, the Discharger has reported the following violations of the Previous Order.

Attachment E, Monitoring Reporting Program (MRP) contains the minimum monitoring and reporting requirements. The Discharger reported six deficient monitoring or late reporting violations.

2.5 Planned Changes

The Discharger has no planned changes to the Facility.

3 Applicable Plans, Policies, and Regulations

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

3.1 Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the 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 1 subject to the WDRs in this Order.

3.2 California Environmental Quality Act

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

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

- 3.3.1 Basin 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 Resources Control Board (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 • navigation • water contact recreation • non-contact recreation • commercial and sport fishing • preservation of biological habitats of special significance • wildlife habitat • rare, threatened, or endangered species • marine habitat • aquaculture • migration of aquatic organisms • spawning, reproduction, and/or early development • shellfish harvesting

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.

- 3.3.2 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, and it became effective on March 22, 2019. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. Beneficial

uses applicable to the Pacific Ocean specified in the Ocean Plan are summarized in Table F-5.

Table F-4 Ocean Plan Beneficial Uses

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

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

3.3.3 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.

3.3.4 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.

3.3.5 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 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.

- 3.3.6 Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and tribal water quality standards become effective for CWA purposes (40 CFR 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.

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

In February 2024, 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 CWA section 303(d) list includes 0.2 miles of the Pacific Ocean shoreline within the San Elijo Hydrologic Subarea (HSA), at Cardiff State Beach at Chart House Parking as impaired for indicator bacteria.

Several total maximum daily loads (TMDLs) for bacteria indicators have been adopted within San Diego Region; however, these TMDLs did not contain applicable wasteload allocations for the discharges from the SEOO. Please refer to Chapter 7 of the Basin Plan for more information

(https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/chapter_7.pdf).

4 Rationale For Effluent Limitations and Discharge Specifications

The federal 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. Where applicable technology-based limitations and standards and WQBELs both result in effluent limitations, the more protective numeric limitation shall be applied.

4.1 Discharge Prohibitions

This Order retains the discharge prohibitions from the Previous Order 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.

- 4.1.1 The Previous Order, section III.A prohibited discharges not in compliance with the effluent limitations specified in section IV.A.1 of the Previous Order unless specifically regulated by this Order or separate WDRs. This prohibition has been carried over to this Order as Discharge Prohibition 3.1. Discharge Prohibition 3.1 prohibits discharges not in compliance with the effluent limitations specified in section 4.1.
- 4.1.2 The Previous Order, section III.A also prohibited discharges to a location other than Discharge Point No. 001 unless specifically regulated by this Order or separate WDRs. This prohibition has been carried over to this Order as Discharge Prohibition 3.2. Discharge Prohibition 3.2 clarifies that any discharges other than those to Discharge Point No. 001 are unauthorized, unless explicitly regulated by this Order or separate WDRs. This prohibition is based on 40 CFR section 122.21(a), duty to apply, and Water Code section 13260, which requires filing a ROWD before discharges can occur. Discharges not described in the ROWD, and subsequently in this Order, are prohibited.
- 4.1.3 The Previous Order, section III.C required the following discharge prohibitions from the Basin Plan:
 - 4.1.3.1 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.

This Order incorporates this prohibition through the cumulative requirements. The cumulative requirements include discharge prohibitions (section 3), effluent limitations (section 4.1), and performance goals (section 4.2). The requirements prevent the condition of pollution, contamination, and nuisance. Monitoring requirements in NPDES permits CA0107999 and CA0107981 include visual observations; chemical analysis; benthic, fish and invertebrate monitoring to determine if the receiving water has a condition of pollution, contamination or nuisance as defined in Water Code section 13050. Attachment E, section 4 requires the Discharger to review the receiving water monitoring reports required by NPDES permits CA0107999 and CA0107981 and submitted by the City of Escondido and San Elijo Joint Powers Authority. Therefore, removing this prohibition has already been addressed in this Order.

- 4.1.3.2 The discharge of waste to land, except as authorized by WDRs or the terms described in Water Code section 13264 is prohibited.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.1.3.3 The discharge of pollutants or dredged or fill material to waters of the United States (U.S.) 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.

Dredged or fill material does not apply to this Order. Therefore, this prohibition is not applicable to this Order, and this Order can remove it. Also, this Order includes Discharge Prohibitions 3.1 and 3.2 which are broader and more inclusive than this Basin Plan prohibition.

- 4.1.3.4 Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this San Diego Water Board issues an NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Water Board, Division of Drinking Water (DDW) and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.

The Discharger's use of recycled water from a wastewater treatment plant, if any, is covered under other regulatory requirements (e.g., requirements from the purveyor). Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.3.4.5 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.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.6 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.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.7 The dumping, deposition, or discharge of waste directly into waters of the State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the San Diego Water Board.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.8 Any discharge to a stormwater conveyance system that is not composed entirely of storm water is prohibited unless authorized by the San Diego Water Board.

The stormwater conveyance system is covered under separate regulatory requirements. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.3.4.9 The unauthorized discharge of treated or untreated sewage to waters of the State or to a storm water conveyance system is prohibited.

This discharge prohibition applies to sanitary sewer systems and wastewater treatment plants. Sanitary sewer spills from private sewer laterals are not handled under this Order. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.3.4.10 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.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.11 The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the State is prohibited.

This requirement has been carried over to this Order as Discharge Prohibition 3.4.

- 4.3.4.12 The discharge of any radiological, chemical, or biological warfare agent into waters of the State is prohibited.

This requirement has been carried over to this Order as Discharge Prohibition 3.4.

- 4.3.4.13 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.

This Order includes Discharge Prohibition 3.2 which is broader and more inclusive than this Basin Plan prohibition. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.14 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.

The activities at the Facility does not include land grading, construction, or other activity that would include significant sand, silt, clay, or other earthen materials. If the Discharger plans any of these types of activities, the Discharger is required to obtain separate waste discharge requirements (e.g., enrollment in construction permit). Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

Also, the discharge of waste to locations other than Discharge Point 001 is broadly covered by Discharge Prohibition 3.2. Therefore, the intent of the Basin Plan prohibition is already addressed.

- 4.3.4.15 The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.

The Facility does not include any vessels. Therefore, this discharge prohibition does not apply to this Order, and this Order can remove it.

- 4.1.4 The Previous Order, section III.D required the following discharge prohibitions from the Ocean Plan:

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

This requirement has been carried over to this Order as Discharge Prohibition 3.4.

- 4.1.4.2 Waste shall not be discharged to designated Areas of Special Biological Significance except as provided in Chapter III.E. of the Ocean Plan.

The closest area of special biological significance (ASBS) to the SEOO discharge point is the San Diego-Scripps ASBS. The San Diego-Scripps ASBS is about 9 miles from the SEOO discharge point. Receiving water monitoring results indicate that the discharge plume does not reach the San Diego-Scripps ASBS. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.1.4.3 Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge directly to the ocean, or into 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.

This prohibition is related to the treatment and disposal of chemical, biological, and hazardous sludge. The Facility does not produce chemical,

biological, and hazardous sludge. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.1.4.4 It is the policy of the State Water Resources Control Board (State Water Board) that the treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment. Therefore, if federal law is amended to permit such discharge, which could affect California waters, the State Water Board may consider requests for exceptions to this section under Chapter III.J of this Plan, provided further that an Environmental Impact Report on the proposed project shows clearly that any available alternative disposal method will have a greater adverse environmental impact than the proposed project.

This prohibition is related to the treatment and disposal of sewage sludge. The Facility does not produce sewage sludge. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

- 4.1.4.5 The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Table 3 or Table 4 [of the Ocean Plan] is prohibited.

The Facility discharges brine waste and cooling tower blowdown which is not treated prior to discharge. The Facility does not have treatment to by-pass. Therefore, this prohibition is not applicable to this Order, and this Order can remove it.

Also, this prohibition is broadly covered by Discharge Prohibition 3.1, effluent limitations, performance goals, and effluent monitoring. Therefore, this Order can remove this prohibition.

- 4.1.4.6 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.

This Ocean Plan discharge prohibition is included in this Order as Discharge Prohibition 3.3.

4.2 Technology-Based Effluent Limitations

4.2.1 Scope and Authority

Section 301(b) of the federal 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 federal CWA requires that TBELs be established based on several levels of controls.

- 4.2.1.1 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.

- 4.2.1.2 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.
- 4.2.1.3 Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including biochemical oxygen demand, 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.
- 4.2.1.4 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 best professional judgment (BPJ) to derive technology-based effluent limitations 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. The USEPA has not developed ELGs for the discharge authorized by this Order.

Section III.B of the Ocean Plan prescribes effluent limitations that apply to industrial discharges for which ELGs have not been established pursuant to sections 301, 302, 304, or 306 of the CWA. Specifically, section III.B.3 of the Ocean Plan states that compliance with Table 4 effluent limitations shall be the minimum level of treatment acceptable under the Ocean Plan, and shall define reasonable treatment and waste control technology.

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:

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

4.2.2 Applicable Technology-Based Effluent Limitations

4.2.2.1 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 4 of the Ocean Plan establishes TBELs for industrial discharges for which ELGs have not been established (including the discharge of brine wastewaters and cooling tower blowdown from Discharge Point No. 001). Consistent with Order No. R9-2012-0006, numeric effluent limitations based on Table 4 of the Ocean Plan have been established in this Order for discharges from the Facility to Discharge Point No. 001 (Monitoring Location EFF-001).

Table 4 of the Ocean Plan requires dischargers to remove 75 percent of the TSS from the influent stream, except that the effluent limitation shall not be less than 60 mg/L. Percent removal requirements are not applicable since the Discharger does not remove TSS from the influent prior to discharge. Thus, this Order only includes the concentration limitation for TSS.

The TBELs from the Ocean Plan are summarized in Table F-5.

Table F-5 Summary of TBELs from Table 4 of the Ocean Plan

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	--	--	0.10	--	--
Oil and Grease	mg/L	25	40	--	--	75
Oil and Grease	lbs/day	20.9	33.4	--	--	62.6
Total Suspended Solids (TSS)	mg/L	60 ¹	--	--	--	--
TSS	lbs/day	50.0	--	--	--	--
Settleable Solids	ml/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	standard units	--	--	--	6.0	9.0

Notes for Table F-5

- 1 Table 4 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.

4.2.2.2 Effluent Flow. The Previous Order contained a maximum daily effluent limitation of 0.10 MGD from the Facility to the SEOO. This Order carries over this effluent flow limitation.

4.3 Water Quality-Based Effluent Limitations

4.3.1 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 section 122.44(d)(1)(vi).

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

4.3.2 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.

4.3.2.1 Basin Plan. The beneficial uses specified in the Basin Plan applicable to the Pacific Ocean are summarized in section 3.3.1 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.”

4.3.2.2 Ocean Plan. The beneficial uses specified in the Ocean Plan for the Pacific Ocean are summarized in section 3.3.2 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 3 of the Ocean Plan includes the following water quality objectives for toxic pollutants and whole effluent toxicity:

- 4.3.2.2.1 6-month median, daily maximum, and instantaneous maximum objectives for 19 chemicals and chemical characteristics, including total residual chlorine, for the protection of marine aquatic life.
- 4.3.2.2.2 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health. These have been applied as average monthly performance goals.¹
- 4.3.2.2.3 30-day average objectives for 42 carcinogenic chemicals for the protection of human health. These have been applied as average monthly performance goals.²
- 4.3.2.2.4 Daily maximum objectives for acute and chronic toxicity.

4.3.3 Determining the Need for WQBELs

The San Diego Water Board staff evaluated the need for effluent limitations, discharge prohibitions, or both for non-conventional and toxic pollutant parameters, based on both numeric and narrative water quality objectives in Chapter II of the Ocean Plan.

4.3.3.1 Numeric Water Quality Objectives

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 a numeric water quality objective, in Table 3 of the Ocean Plan, 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

¹ Section 122.45(d) of 40 CFR states, “For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as: (1) Maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works.”

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 probable initial dilution) can then be compared to the appropriate objective to determine potential for an exceedance of that objective and 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 3 of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates 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. Before establishing a dilution credit for a discharge, it must first be determined if, and how much, receiving water is available to dilute the discharge.

In 2005, the San Diego Water Board staff, with assistance from the State Water Board staff, determined the minimum probable initial dilution (D_m) for the SEOO to be 237 parts seawater to 1 part wastewater (237:1), using the USEPA approved computer modeling application Visual Plumes (UM3) model. The D_m of 237:1 was used in the Previous Order. The NPDES Orders for the City of Escondido and the San Elijo Joint Powers Authority required the City of Escondido and the San Elijo Joint Powers Authority to conduct a special study to re-evaluate the D_m and zone of initial dilution for the SEOO. The City of Escondido and the San Elijo Joint Powers Authority calculated the lowest average initial dilution as 237:1, which is the same as the current D_m . Given this, this Order retains the D_m of 237:1 from the Previous Order.

Conventional pollutants were not considered as part of the RPA. TBELs for these pollutants are included in this Order as described in section 4.2 of this Fact Sheet.

Using the RPhcalc 2.2 software tool developed by the State Water Board for conducting RPAs, the San Diego Water Board staff conducted the RPA for the parameters listed in Table 3 of the Ocean Plan. For parameters 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.” The Discharger is required to monitor for these parameters as stated in the Monitoring and Reporting Program (MRP, Attachment E) to gather data for use in reasonable potential analyses for future permit reissuances.

The Previous Order required the Discharger to monitor for the parameters in Table 3 of the Ocean Plan semi-annually. Effluent data provided in the Discharger’s monitoring reports for the Facility from March 2019 to October 2025 were used in the RPA. A minimum probable initial dilution of 237:1 was considered in this evaluation.

A summary of the RPA results is provided in Table F-6.

Table F-6 RPA Results Summary

Parameter	Units	Data Points ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Arsenic, Total Recoverable	µg/L	14	2.5	8 ⁶	3 ⁷	2
Cadmium, Total Recoverable	µg/L	14	0.2	1 ⁶	0	2
Chromium (IV), Total Recoverable	µg/L	23	2.2	2 ⁶	0	2
Copper, Total Recoverable	µg/L	14	38	3 ⁶	2 ⁷	2
Lead, Total Recoverable	µg/L	14	2.3	2 ⁶	0	2
Mercury, Total Recoverable	µg/L	14	0.00029	0.04 ⁶	0.0005 ⁷	3
Nickel, Total Recoverable	µg/L	14	29	5 ⁶	0	2
Selenium, Total Recoverable	µg/L	14	1.7	15 ⁶	0	2
Silver, Total Recoverable	µg/L	14	<0.073	0.7 ⁶	0.16 ⁷	3
Zinc, Total Recoverable	µg/L	14	110	20 ⁶	8 ⁷	2
Cyanide, Total	µg/L	14	<0.004	1 ⁶	0	3
Total Residual Chlorine	µg/L	14	1.2	2 ⁶	0	3
Ammonia	µg/L	14	6.2	600 ⁶	0	2
Acute Toxicity ⁸	TUa	--	--	0.3 ⁹	0	--
Chronic Toxicity ¹	TUc	20	"Pass"	1 ⁹	0	2
Phenolic Compounds ¹	µg/L	14	<0.033	30 ⁶	0	3
Chlorinated Phenolics ¹	µg/L	14	<0.054	1 ⁶	0	3
Endosulfan ¹	µg/L	14	0.46	0.009 ⁶	0	2
Endrin	µg/L	14	0.0019	0.002 ⁶	0	3
HCH (BHC) ¹	µg/L	14	<0.025	0.004 ⁶	0	3
Radioactivity	pCi/L	24	56.8	10	0	3
Acrolein	µg/L	14	2.5	220 ¹¹	0	3
Antimony, Total Recoverable	µg/L	9	2.4	1,200 ¹¹	0	2
Bis(2-chloroethoxyl) methane	µg/L	12	<0.086	4.4 ¹¹	0	3
Bis(2-chloroisopropyl) ether	µg/L	12	<0.086	1,200 ¹¹	0	3

Parameter	Units	Data Points ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Chlorobenzene	µg/L	13	<0.13	570 ¹¹	0	3
Chromium (III), Total Recoverable	µg/L	12	1.6	190,000 ¹¹	0	2
Di-n-butyl phthalate	µg/L	12	18	3,500 ¹¹	0	3
Dichlorobenzenes ¹	µg/L	12	<0.081	5,100 ¹¹	0	2
Diethyl phthalate	µg/L	12	<0.17	33,000 ¹¹	0	3
Dimethyl phthalate	µg/L	12	23	820,000 ¹¹	0	3
4,6-Dinitro-2-methylphenol	µg/L	21	<0.14	220 ¹¹	0	2
2,4-Dinitrophenol	µg/L	21	<2.5	4.0 ¹¹	0	2
Ethylbenzene	µg/L	12	<0.045	4,100 ¹¹	0	3
Fluoranthene	µg/L	12	<0.096	15 ¹¹	0	3
Hexachlorocyclopentadiene	µg/L	12	<0.11	58 ¹¹	0	3
Nitrobenzene	µg/L	12	<0.084	4.9 ¹¹	0	3
Thallium, Total Recoverable	µg/L	8	0.11	2 ¹¹	0	3
Toluene	µg/L	12	<0.073	85,000 ¹¹	0	3
Tributyltin	µg/L	12	0.0078	0.0014 ¹¹	0	3
1,1,1-Trichloroethane	µg/L	12	<0.19	540,000 ¹¹	0	3
Acrylonitrile	µg/L	12	<0.36	0.10 ¹¹	0	3
Aldrin	µg/L	12	<0.0011	0.000022 ¹¹	0	3
Benzene	µg/L	12	<0.057	5.9 ¹¹	0	3
Benzidine	µg/L	12	<0.93	0.000069 ¹¹	0	3
Beryllium, Total Recoverable	µg/L	8	<0.1	0.033 ¹¹	0	3
Bis(2-chloroethyl) ether	µg/L	12	<0.069	0.045 ¹¹	0	3
Bis(2-ethylhexyl) phthalate	µg/L	12	48	3.5 ¹¹	0	3
Carbon tetrachloride	µg/L	12	<0.2	0.90 ¹¹	0	3
Chlordane ¹	µg/L	12	<0.0099	0.000023 ¹¹	0	3
Chlorodibromomethane	µg/L	11	5.9	8.6 ¹¹	0	2
Chloroform	µg/L	12	9.4	130 ¹¹	0	2
Dichlorodiphenyltrichloroethane (DDT) ¹	µg/L	12	<0.0079	0.00017 ¹¹	0	3
1,4-Dichlorobenzene	µg/L	10	<0.081	18 ¹¹	0	3
3,3-Dichlorobenzidine	µg/L	12	<0.54	0.0081 ¹¹	0	3
1,2-Dichloroethane	µg/L	11	<0.15	28 ¹¹	0	3
1,1-Dichloroethylene	µg/L	9	<0.19	0.9 ¹¹	0	3
Dichlorobromomethane	µg/L	10	3.9	6.2 ¹¹	0	2
Dichloromethane	µg/L	12	<0.57	450 ¹¹	0	3
1,3-Dichloropropene	µg/L	11	<0.11	8.9 ¹¹	0	3
Dieldrin	µg/L	14	0.08	0.00004 ¹¹	0	1
2,4-Dinitrotoluene	µg/L	12	5	2.6 ¹¹	0	3
1,2-Diphenylhydrazine	µg/L	11	<0.024	0.16 ¹¹	0	3

Parameter	Units	Data Points ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Halomethanes ¹	µg/L	12	15.5	130 ¹¹	0	2
Heptachlor	µg/L	12	0.0096	0.00005 ¹¹	0	3
Heptachlor Epoxide	µg/L	12	<0.00061	0.00002 ¹¹	0	3
Hexachlorobenzene	µg/L	12	<0.069	0.00021 ¹¹	0	3
Hexachlorobutadiene	µg/L	12	<0.11	14 ¹¹	0	3
Hexachloroethane	µg/L	12	<0.096	2.5 ¹¹	0	3
Isophorone	µg/L	12	<0.07	730 ¹¹	0	3
N-nitrosodimethylamine	µg/L	9	<0.091	7.3 ¹¹	0	3
N-nitrosodi-N-propylamine	µg/L	12	<0.059	0.38 ¹¹	0	3
N-nitrosodiphenylamine	µg/L	12	<0.031	2.5 ¹¹	0	3
Polynuclear Aromatic Hydrocarbons (PAHs) ¹	µg/L	12	<0.704	0.0088 ¹¹	0	3
Polychlorinated Biphenyls (PCBs) ¹	µg/L	11	<0.308	0.000019 ¹¹	0	3
Tetrachlorodibenzodioxin (TCDD) equivalents ¹	pg/L	12	9.6	0.0039 ¹¹	0	1
1,1,2,2-Tetrachloroethane	µg/L	12	<0.12	2.3 ¹¹	0	3
Tetrachloroethylene	µg/L	12	<0.099	2.0 ¹¹	0	3
Toxaphene	µg/L	12	<0.013	0.00021 ¹¹	0	3
Trichloroethylene	µg/L	9	<0.1	27 ¹¹	0	3
1,1,2-Trichloroethane	µg/L	12	<0.087	9.4 ¹¹	0	3
2,4,6-Trichlorophenol	µg/L	7	<0.13	0.29 ¹¹	0	3
Vinyl Chloride	µg/L	12	<0.15	36 ¹¹	0	3

Notes for Table F-6

- 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 minimum level (ML) or method detection limit (MDL) is summarized in the table.
- 4 Note that the reported maximum effluent concentration (MEC) does not account for dilution. The RPA does account for dilution; therefore, it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present reasonable potential (i.e., Endpoint 2).
- 5 Endpoint 1 – Reasonable potential determined, limitation required, monitoring required.
Endpoint 2 – Discharger determined not to have reasonable potential, monitoring may be established.

Endpoint 3 – RPA was inconclusive, carry over previous limitations if applicable, and establish monitoring.

- 6 Based on the 6-Month Median in Table 3 of the Ocean Plan.
- 7 Background concentrations contained in Table 3 of the Ocean Plan.
- 8 Order No. R9-2018-0063 did not include effluent limitations or monitoring requirements for acute toxicity. See section 4.3.6.4 of this Fact Sheet for more information.
- 9 Based on the Daily Maximum in Table 3 of the Ocean Plan.
- 10 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.
- 11 Based on the 30-day average in Table 3 of the Ocean Plan.

4.3.3.1.1 Endpoint 1

Based on the Facility effluent data and SEOO Dm of 237:1, the San Diego Water Board staff determined that there is reasonable potential for an exceedance of water quality objectives for dieldrin and TCDD equivalents (i.e., Endpoint 1). Therefore, this Order replaces the dieldrin and TCDD equivalents performance goals with dieldrin and TCDD equivalents effluent limitations (based on the SEOO Dm of 237:1, as discussed above).

4.3.3.1.2 Endpoint 2

Based on the Facility effluent data and SEOO Dm of 237:1, the San Diego Water Board staff determined that there is no reasonable potential to exceed the water quality objectives for many of the parameters in the table above (i.e., Endpoint 2 in the last column, no reasonable potential). Therefore, this Order carries over the performance goals from the Previous Order for these parameters.

4.3.3.1.3 Endpoint 3

Based on the Facility effluent data and SEOO Dm of 237:1, the San Diego Water Board staff could not conclude if there is or is not reasonable potential to exceed the water quality objectives for many of the parameters in the table above (i.e., Endpoint 3 in the last column, inconclusive). For these parameters, if previous effluent limitations had not been established in the Previous Order, performance goals have been retained. The Previous Order did not contain any effluent limitations for the parameters in Table 3 of the Ocean Plan.

The MRP (Attachment E) is designed to obtain additional information for the parameters in Table 3 of the Ocean Plan to determine if reasonable potential exists for these parameters in future permit renewals and/or amendments.

4.3.3.2 Narrative Water Quality Objectives

Chapter II of the Ocean Plan includes narrative water quality objectives for all ocean waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. 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 narrative objectives within a standard. Consistent with the Ocean Plan, section II.A.3 and Appendix VI, San Diego Water Board staff evaluated reasonable potential for narrative water quality objectives for pollutant levels expected from samples collected at stations representative of the area within the waste field where initial dilution is completed. The subsections below provide an overview of the analysis.

4.3.3.2.1 Bacterial Characteristics

The 2019 Ocean Plan, section II.B includes bacterial water quality objectives. These Ocean Plan objectives apply to water contact recreational beneficial use (REC-1) as designated by the Basin Plan. The Basin Plan applies to State waters (i.e., within 3 nautical miles of the shoreline at all depths. The Basin Plan simply states that REC-1 applies to the Pacific Ocean. Thus, the discharge must achieve the bacterial water quality objectives throughout the State ocean waters, excluding the zone of initial dilution.

For the bacterial RPA, San Diego Water Board staff evaluated fecal indicator bacteria (FIB, total coliform, fecal coliform, and enterococcus). San Diego Water Board staff reviewed SEOO receiving water reports prepared by San Elijo Joint Powers Authority and the City of Escondido under Order Nos. R9-2018-0003 and R9-2018-0002², respectively. Order Nos. R9-2018-0003 and R9-2018-0002 requires quarterly receiving water quality monitoring of FIB at the nearshore and offshore SEOO monitoring locations, at the surface and mid-depth.

From April 2020 to March 2026 (6 years of quarterly monitoring), the reports only included five exceedances of the single sample maximum water quality objectives for FIB at the nearshore and offshore SEOO monitoring locations.

On August 4, 2020, one exceedance occurred 14,000 feet south of the outfall and two exceedances occurred in the nearshore monitoring stations in the surface samples. However, the same-day samples closest to the

² Order No. R9-2028-0003, NPDES No. CA0107999, *Waste Discharge Requirements for the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility Discharge to the Pacific Ocean Through the San Elijo Ocean Outfall*; and Order No. R9-2018-0002, NPDES No. CA0107981, *Waste Discharge Requirements for the City of Escondido, Hale Avenue Resource Recovery Facility and Membrane Filtration/Reverse Osmosis Facility Discharge to the Pacific Ocean Through the San Elijo Ocean Outfall*.

outfall and nearshore samples at mid-depth were at or below the method detection limit.

On February 4, 2025, two exceedances in the offshore stations occurred in the surface samples. However, the same-day corresponding mid-depth samples were at or below the method detection limit.

Based on these monitoring results, these exceedances are not likely attributed to the SEOO plume.

Even if there were exceedances in the nearshore and offshore SEOO monitoring stations that were attributed to the SEOO plume, the source of the FIB is unlikely from the Facility's discharge. The Facility's discharge to the SEOO only includes waste from the cooling tower blowdowns, ultra filtered (RO feed) tank, and RO concentrate, all of which is not expected to contain any significant amount of FIB.

San Diego Water Board staff concluded that the SEOO discharge allows for the attainment and maintains water quality that allows for recreational activities beyond the zone of initial dilution. Also, the San Diego Water Board staff do not expect reasonable potential for the Facility discharge to contain any significant bacterial levels.

To determine if the waters meet bacterial water quality objectives and determine the potential need to reopen this Order, San Diego Water Board staff will continue to conduct routine reviews of the SEOO receiving water monitoring reports.

4.3.3.2.2 Physical Characteristics

The Ocean Plan, section II.C includes the following water quality objectives for physical characteristics:

- Floating particulates and grease and oil shall not be visible.
- The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
- The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
- Trash shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

Order Nos. R9-2018-0003 and R9-2018-0002 requires quarterly visual observations at the nearshore and offshore SEOO monitoring locations. From April 2020 to March 2026 (6 years of quarterly monitoring), San Elijo Joint Powers Authority and the City of Escondido reported no material of sewage origin, odor, or oil and grease at the nearshore and offshore

stations. San Elijo Joint Powers Authority and the City of Escondido also reported no turbidity or unusual color with the exception of one monitoring event with red tide on April 25, 2020.

Order Nos. R9-2018-0003 and R9-2018-0002 also requires quarterly light transmittance throughout the water column at the nearshore and offshore SEOO monitoring locations. Based on the reported light transmittance data, there was no discernible difference in the light transmittance profiles between the offshore monitoring stations near the SEOO and a reference site, indicating the SEOO plume is not reducing the natural light in the receiving water.

Order Nos. R9-2018-0003 and R9-2018-0002 also requires an assessment of sediment quality to evaluate potential effects of the SEOO discharge. The assessment consists of the measurement and integration of three lines of evidence: 1) physical and chemical properties of seafloor sediments, 2) seafloor sediment toxicity to assess bioavailability and toxicity of sediment contaminants, and 3) ecological status of the biological communities (benthos) that live in or on the seafloor sediments. Based on a review of the assessment, San Diego Water Board staff did not find evidence of benthic community degradation.

Also, the Discharger reported 100 percent compliance with the technology-based effluent limitations for total suspended solids, oil and grease, settleable solids, and turbidity during the Previous Order. Also, as described in sections 4.3.3.1 and 4.3.3.2.3, the San Diego Water Board staff determined that there is reasonable potential for exceedance of the water quality objective for only 2 of the 83-water quality-based pollutants.

Based on a review of the SEOO receiving water reports and the Discharger's compliance with the effluent limitations, the San Diego Water Board staff determined that there is no reasonable potential for exceedance of the water quality objectives for physical characteristics.

To determine if the waters meet physical characteristic water quality objectives and determine the potential need to reopen this Order, the San Diego Water Board staff will continue to conduct routine reviews of the SEOO receiving water monitoring reports. This Order also carries over effluent limitations and monitoring for TSS, turbidity, settleable solids, and oil and grease.

4.3.3.2.3 Chemical Characteristics

The Ocean Plan, section II.D includes the water quality objectives for chemical characteristics.

The Ocean Plan, states, "The dissolved oxygen (DO) 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." The SEOO receiving water reports found no discernible difference in the dissolved oxygen profiles between the offshore monitoring

stations near the SEOO and a reference site. The Previous Order and this Order does not require effluent limitations or monitoring for biochemical oxygen demand. These requirements are not necessary because the discharge is not expected to contain oxygen demanding pollutants. Therefore, the San Diego Water Board staff determined that there is no reasonable potential for exceedance of the water quality objectives for DO concentration.

The Ocean Plan, states, "The pH shall not be changed at any time more than 0.2 units from that which occurs naturally." The SEOO receiving water reports stated that there was no discernible difference in the pH profiles between the offshore monitoring stations near the SEOO and a reference site. Also, the Discharger reported 100 percent compliance with the pH effluent limitations during the Previous Order. Therefore, the San Diego Water Board staff determined that there is no reasonable potential for exceedance of the water quality objectives for pH.

The Ocean Plan, states, "The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions." Given the presence of oxygen in SEOO discharges from the SEOO, the San Diego Water Board staff anticipates the majority of sulfide in the SEOO discharge will be converted to other compounds and thus sulfides will not likely significantly increase above that present under natural conditions. Also, as stated above, the discharge is not expected to contain oxygen demanding pollutants. Therefore, the San Diego Water Board staff do not expect the SEOO discharge to contain sulfide concentrations above the background levels of the receiving water and sediments.

The Ocean Plan, states, "The concentration of substances set forth in chapter II, Table 3 [of the Ocean Plan] in marine sediments shall not be increased to levels which would degrade indigenous biota [and the] concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life." San Diego Water Board staff reviewed the SEOO receiving water reports. The SEOO receiving water report concluded that there is no discernible effect of discharges from the SEOO to the nearby monitoring stations to benthic communities or marine life.

Additionally, as detailed in section 4.3.3.1 of this Fact Sheet, the San Diego Water Board staff determined that the Facility discharge only has the reasonable potential to exceed the water quality objectives for two of 83 Ocean Plan Table 3 parameters, dieldrin and TCDD equivalents. The dieldrin determination was based on 14 samples over seven years, all of which were not detected (i.e., below the method detection limit) except for one sample which was greater than the average monthly performance goal. The TCDD equivalents determination was based on 12 samples over seven years, all of which were not detected (i.e., below the method detection limit) or detected, but not quantified (i.e., below the reporting limit) except for one

sample which was greater than the average monthly performance goal. Given the SEOO receiving water report conclusion and Facility effluent results, the San Diego Water Board staff determined that there is no reasonable potential for the degradation of indigenous biota or marine life.

To determine if the waters meet physical characteristic water quality objectives and determine the potential need to reopen this Order, the San Diego Water Board staff will continue to conduct routine reviews of the SEOO receiving water monitoring reports. This Order also carries over effluent limitations and monitoring for pH and Ocean Plan Table 3 pollutant parameters.

4.3.3.2.4 Biological Characteristics

The Ocean Plan, section II.E includes the following water quality objectives for the biological characteristics. The evaluation was performed to determine reasonable potential for these biological water quality objectives using monitoring data collected at fish and invertebrate monitoring stations.

- Marine communities, including vertebrate, invertebrate, algae, and plant species, shall not be degraded.
- The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- 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.

As detailed in section 4.3.3.1 above, the San Diego Water Board staff conducted an RPA for the Ocean Plan Table 3 parameters. The San Diego Water Board staff determined no reasonable potential for chronic toxicity. However, this Order establishes monitoring requirements and performance goals for chronic toxicity. Exceedances of the performance goal will trigger an investigation into the cause of the exceedance and expedient reduction of chronic toxicity through a Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE).

As discussed in section 4.3.3.2.3 above, the SEOO receiving water report indicates that there is no discernible effect of discharges from the SEOO to the nearby monitoring stations to benthic communities or marine life. Review of the SEOO receiving water report also indicates the discharge is not affecting marine communities and that contaminants in sport fishes are within fish advisory tissue levels for human consumption.

Therefore, the San Diego Water Board staff determined that there is no reasonable potential for the degradation of the marine communities, alteration of the natural taste, odor, and color of fish, shellfish, or other marine resources, or the bioaccumulation of organic materials in fish, shellfish or other marine resources.

To determine if the waters meet biological characteristic water quality objectives and determine the potential need to reopen this Order, the San Diego Water Board staff will continue to conduct routine reviews of the SEOO receiving water monitoring reports. This Order also carries over effluent limitations and monitoring for Ocean Plan Table 3 pollutant parameters.

4.3.3.2.5 Radioactivity

The Ocean Plan, section II.F requires that discharge of radioactive waste shall not degrade marine life.

The SEOO receiving water report states that sediment, benthic community (e.g., species dominance, evenness and diversity), benthic fish, and macroinvertebrate data do not indicate any degradation of marine life. The report also states that major benthic community metrics and indices show no evidence of habitat degradation, and benthic data collected at SEOO stations are at least as good (often better) than regional mid-shelf monitoring stations.

This Order retains monitoring requirements and performance goals for radioactivity from the Previous Order.

Furthermore, this Order requires the Discharger comply with discharge prohibitions contained in the Basin Plan and Ocean Plan (Discharge Prohibitions 3.3 and 3.4). The Basin Plan and Ocean Plan include prohibitions against the discharge of radiological waste.

Therefore, the San Diego Water Board staff determined that there is no reasonable potential for the degradation of marine life due to radioactive waste.

To determine if the waters meet radiological water quality objective and determine the potential need to reopen this Order, the San Diego Water Board staff will continue to conduct routine reviews of the SEOO receiving water monitoring reports. This Order also carries over effluent limitations and monitoring for radioactivity.

4.3.4 Water Quality Based Effluent Limitation Calculations

- 4.3.4.1 From the Table 3 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 (if applicable):

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

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

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

C_s = background seawater concentration

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

- 4.3.4.2 As discussed in section 4.3.3.1., the San Diego Water Board staff determined the Dm is 237:1.
- 4.3.4.3 Table 5 of the Ocean Plan establishes background concentrations for some pollutants to be used when determining reasonable potential (represented as “Cs”). In accordance with Table 5 implementing procedures of the Ocean Plan, Cs equals zero for all pollutants not established in Table 5 of the Ocean Plan. The background concentrations provided in Table 5 of the Ocean Plan are in Table F-7.

Table F-7 Summary of Ocean Plan Table 5 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
Zinc, Total Recoverable	8 µg/L

- 4.3.4.4 As an example, effluent limitations/performance goals for cyanide were determined as follows.

Water quality objectives from the Ocean Plan for cyanide are in Table F-8:

Table F-8 Ocean Plan Cyanide Water Quality Objectives

Parameter	Units	6-Month Median	Maximum Daily	Instantaneous Maximum
Cyanide, Total	µg/L	1	4	10

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

Cyanide:

$$C_e = 1 + 237 (1 - 0) = 238 \text{ (6-Month Median)}$$

$$C_e = 4 + 237 (4 - 0) = 952 \text{ (Daily Maximum)}$$

$$C_e = 10 + 237 (10 - 0) = 2,380 \text{ (Instantaneous Maximum)}$$

Based on the implementing procedures described above, effluent limitations and performance goals have been calculated for all parameters in Table 3 of the Ocean Plan and incorporated into this Order.

- 4.3.4.5 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 3 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:

The mass emission rate limitation is calculated using the following equation:

$$\text{MER} = \text{Cf} \times \text{Q} \times \text{C}$$

Where:

MER is the mass emission rate in lbs/day

Cf is the conversion factor 8.34 when C is in mg/L or 0.00834 when C is in ug/L

Q is the permitted flow for the Facility in MGD

C is the concentration in mg/L or ug/L as listed for the parameter in the table

- 4.3.4.6 Based on the results of the RPA, a summary of the WQBELs established in this Order is provided in Table F-9.

Table F-9 Summary of WQBELs

Parameter¹	Units¹	Average Monthly Effluent Limitations²
Dieldrin	µg/L	9.52E-03
Dieldrin	lbs/day	7.94E-06
TCDD Equivalents	µg/L	9.28E-07
TCDD Equivalents	lbs/day	7.74E-10

Notes for Table F-9

- 1 Scientific "E" notation is used to express all values to three significant figures. 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 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^2 or 610, and 6.1E00 represents 6.1×10^0 or 6.1.
- 2 The mass emission rate limitation is calculated using the following equation:

$$\text{MER} = \text{Cf} \times \text{Q} \times \text{C}$$

Where:

MER is the mass emission rate in lbs/day

Cf is the conversion factor 8.34 when C is in mg/L or 0.00834 when C is in ug/L

Q is the permitted flow for the Facility in MGD

C is the concentration in mg/L or ug/L as listed for the parameter in the table

4.3.5 Performance Goals

Constituents that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives have been assigned performance goals. Pursuant to Water Code section 13383, this Order includes monitoring and reporting requirements related to performance goals. Performance goals serve to maintain existing treatment levels and effluent quality, and support State and federal antidegradation policies. Additionally, performance goals provide all interested parties with information regarding the expected level of pollutants in the discharge that should not be exceeded in order to maintain the water quality objectives established in the Ocean Plan and the overall pollutant control performance of the Facility. Performance goals are not limitations or standards for the regulation of the discharge. Effluent concentrations above the performance goals will not be considered as violations of this Order but serve as indicators that the effluent may be causing or contributing to an exceedance of water quality objectives. The performance goals are provided in Table 3 and were calculated as described in section 4.3.4 above.

4.3.6 Whole Effluent Toxicity (WET)

- 4.3.6.1 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.(3) requires chronic toxicity monitoring for ocean waste discharges with a minimum initial dilution from 100:1 to 350:1.
- 4.3.6.2 For chronic toxicity, the Previous Order established a performance goal of “Pass” with semiannual monitoring. From March 2019 to October 2025 the Discharger met the performance goal for chronic toxicity for the Previous Order and no chronic toxicity results were reported as Fail. Based on best professional judgement (step 13 of the Ocean Plan Appendix VI) this Order does not require an effluent limitation for chronic toxicity. Consistent with the Previous Order, this Order contains a performance goal and retains the semiannual monitoring frequency to ensure a sufficient dataset to perform a statistically-sound RPA for reissuance of this Order as recommended in USEPA’s *Technical Support Document for Water-Quality Based Toxics Control*.
- 4.3.6.3 This Order carries over USEPA’s 2010 Test of Significant Toxicity (TST) hypothesis testing approach at the discharge “in-stream” waste concentration (IWC) from the Previous Order. 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 Discharger shall also report the “Percent Effect” as part of the chronic toxicity result. “Percent Effect” (or Effect, in percent) is:

Percent Effect" (or Effect, in percent) = [(Control mean response – IWC mean response) ÷ Control mean response] × 100

- 4.3.6.3.1 In 2010, USEPA endorsed the TST statistical approach in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). This document states, "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 to analyze valid WET test data for NPDES WET reasonable potential and compliance determinations. The TST approach does not result in changes to EPA's WET test methods promulgated at 40 CFR Part 136. The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods."
- 4.3.6.3.2 Reporting the TST results, 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. The TST statistical approach will improve consistency in assessing effluent toxicity and the impact of discharge.

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 *Haliotis rufescens* used in the red abalone larval development WET method and *Mytilus* spp. shell development test method 1005.0 (Diamond D, Denton D, Roberts, J, Zheng L. 2013. *Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples*. Environ Toxicol Chem 32:1101-1108; and California State Water Resources Control Board. 2011. *Whole Effluent Toxicity Test Drive Analysis of the Test of Significant Toxicity (TST)*. Sacramento, CA, USA). See Table 1 (method types 1 through 5) on page 1103.

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 percent) and false negative rate (α no higher than 0.05 (0.25 for topmelt) at a mean effect of 25 percent) are indeed low.

- 4.3.6.3.3 Fox et al. 2019³ found that the TST approach incentivizes laboratories to produce more precise data and increase statistical power. When within-test variability is low and the percent effect is low, the NOEC approach is more likely to declare a sample toxic than the TST approach. When within-test variability is high and the percent effect is high, the NOEC approach is less likely to declare a sample toxic than the TST approach.
- 4.3.6.3.4 When using the TST approach, the San Diego Water Board staff will have more confidence when making reasonable potential determinations as to whether the discharge is toxic or non-toxic. The use of the TST approach will also allow for better data comparability to the Discharger's previous toxicity results reported under the Previous Order. Additionally, the results will allow for data comparability with toxicity results from other coastal regions that also implement the TST approach for analyzing chronic toxicity data from ocean outfall discharges.
- 4.3.6.3.5 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).
- 4.3.6.3.6 Pollutants, such as TCDD and DDT for example, have method detection limits that are greater than their effluent limitations. Thus, pollutants in excess of the effluent limitation may be discharged without detection, attach to suspended solids, be released into the Pacific Ocean, and harm designated beneficial uses. The effluent could also include harmful levels of pharmaceuticals, personal care products, pesticides, and per- and polyfluoroalkyl substances (PFAS) that don't have effluent limitations or performance goals that could cause toxic conditions in the receiving water.
- 4.3.6.4 For acute toxicity, the Previous Order did not establish any effluent limitations, performance goals, or monitoring requirements. 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

³ Fox J, Denton D, Diamond J, Stuber R. 2019. *Comparison of False-Positive Rates of 2 Hypothesis-Test Approaches in Relation to Laboratory Toxicity Test Performance. Environmental Toxicology and Chemistry*. 38(3): 511–523.

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

mortality, reproduction, and growth. A chemical at a low concentration could have chronic effects but no acute effects until the chemical is 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 goals for chronic toxicity. 4.3.6.6. 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, LC50, and EC25, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by USEPA's 2000 guidance decreased discrepancies in data interpretation for NOEC, LC50, and EC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from 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 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 staff 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.

- 4.3.6.5 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.

- 4.3.6.6 This Order contains a reopener that allows the San Diego Water Board to modify the performance goal for toxicity, if necessary, to make it consistent with any new policy, law, or regulation.

4.4 Final Effluent Limitation Considerations

4.4.1 Satisfaction of Anti-Backsliding Requirements

NPDES permits must conform with Anti-backsliding requirements discussed in section 3.3.4 of this Fact Sheet. These Anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the Previous Order, with some exceptions where limitations may be relaxed. This Order complies with all applicable federal and State Anti-backsliding regulations. The effluent limitations in this Order are at least as stringent as the effluent limitations in the Previous Order.

4.4.2 Satisfaction of Antidegradation Policies

The WDRs for the Discharger must conform with antidegradation requirements discussed in section 3.3.3 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.

This Order complies with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16. This Order does not authorize lowering water quality as compared to the level of discharge authorized in the Previous Order, which is the baseline by which to measure whether degradation will occur. This Order also does not allow for an increased flow or a reduced level of treatment relative to the Previous Order. Thus, the

San Diego Water Board staff determined that this Order is consistent with the antidegradation provisions of 40 CFR section 131.12 and the State Antidegradation Policy.

4.4.3 Stringency of Requirements for Individual Pollutants

This Order contains TBELs and WQBELs 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 4.2 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 federal 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 federal 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 federal CWA.

5 Rationale for Receiving Water Limitations

The Previous Order included generalized receiving water limitations as backstops for unanticipated circumstances or any potential changes to effluent quality that could affect receiving water quality. This Order removes the generalized receiving water limitations contained in the Previous Order that made the Discharger responsible for the quality of the receiving water into which the permittee discharges pollutants, without specifying specific requirements (e.g., effluent limitations) or other actions the discharger must take that apply at or before the discharge point. This action was taken to address the U.S. Supreme Court's decision in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S. Ct. 704, which held that NPDES permits issued by USEPA may not include end-result requirements under Clean Water Act section 301(b)(1)(C). End-result requirements are provisions that do not spell out what a permittee must do or refrain from doing; rather, they make a permittee responsible for the quality of the receiving water into which it discharges pollutants.

The generalized receiving water limitations were derived from the narrative water quality objectives for ocean waters established by the Basin Plan and the Ocean Plan. The San Diego Water Board staff reviewed the remaining permit requirements and have evaluated whether there is reasonable potential for the discharge to cause

or contribute to an exceedance of any narrative or numeric water quality objective in accordance with 40 CFR section 122.44(d). Where the San Diego Water Board staff determined reasonable potential, this Order require more stringent limitations or discharge prohibitions to ensure that the discharge satisfies the requirements of Clean Water Act section 301(b)(1)(C) (33 U.S.C. section 1311(b)(1)(C)). See section 4.3.3.2 of this Fact Sheet. As a result, the discharge does not authorize violations of water quality standards, and the removal of the generalized receiving water limitation does not authorize the additional discharge of pollutants or authorize the violation of water quality standards. This Order does not, therefore, authorize either backsliding or further degradation of water quality.

6 Rationale for Provisions

6.1 Standard Provisions

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

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 permit. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.2 Special Provisions

6.2.1 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, 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; revisions to sludge use or disposal practices; or adoption of new or revised regulations, water quality control plans, or policies by the State Water Board, San Diego Water Board, or USEPA including revisions to the Basin Plan or Ocean Plan.

6.2.2 Construction, Operation, and Maintenance Specifications

This Order retains provisions from the Previous Order to ensure the Facility is protected against a 100-year peak stream flows as defined by the San Diego County Flood Control District .

7 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 section 13383 also authorizes 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 reports required by the MRP are needed to ensure compliance with this Order, protect beneficial uses, and obtain other benefits as described in this Fact Sheet and the MRP. Thus, the burdens, including costs, of the MRP required by this Order bear a reasonable relationship to the need for and benefits to be obtained from the MRP. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for the Facility.

7.1 Core Monitoring Requirements

7.1.1 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 the Previous Order with the following exceptions.

As detailed in section 4.3.3.1 of this Fact Sheet, the San Diego Water Board staff determined reasonable potential for the Facility discharge to cause or contribute to an exceedance of water quality objectives for dieldrin and TCDD equivalents. Thus, this Order replaces the dieldrin and TCDD equivalents performance goals with dieldrin and TCDD equivalents effluent limitations and increases the minimum monitoring frequency for dieldrin and TCDD equivalents from semiannual to monthly.

Refer to section 3.1 of the MRP (Attachment E).

7.1.2 Whole Effluent Toxicity Testing Requirements

This Order contains a chronic toxicity performance goal. This Order retains semiannual monitoring for chronic toxicity from the Previous Order to ensure a sufficient dataset to perform a statistically-sound RPA for the reissuance of this Order.

Consistent with the requirements of the Ocean Plan, section 3.3.7 of the MRP (Attachment E) requires the Discharger to develop an Initial Toxicity Reduction Evaluation (TRE) Work Plan and submit the Initial 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 chronic toxicity performance goal is exceeded.

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, consistent 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 TRE Work Plan and USEPA guidance⁵ 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 4.2.

The above accelerated monitoring (of six tests performed at approximately 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 may be modified at the direction of the San Diego Water Board.

Refer to section 3.2 of the MRP (Attachment E).

⁵ See (a) *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989); *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).

7.2 Receiving Water Monitoring

The City of Escondido and San Elijo Joint Powers Authority conduct receiving water monitoring for their individual discharges to the San Elijo Ocean Outfall⁶. The receiving water monitoring is designed to measure the effects of the SEOO 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 conformance 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 Escondido and San Elijo Joint Powers Authority as they become available on the State Water Board website at <http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportEsmrAtGlanceServlet?inCommand=reset>.

7.3 Regional Monitoring Requirement

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 ocean water beneficial uses. 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 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

⁶ Discharges from the City of Escondido's MFRO Facility and HARRF are regulated by separate WDRs, Order No. R9-2018-0002, NPDES No. CA0107981, *Waste Discharge Requirements for the City of Escondido, Hale Avenue Resource Recovery Facility and Membrane Filtration/Reverse Osmosis Facility Discharge to the Pacific Ocean through the San Elijo Ocean Outfall*.

Discharges from the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility are regulated by separate WDRs, Order No. R9-2018-0003, NPDES No. CA0107999, *Waste Discharge Requirements for the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility Discharge to the Pacific Ocean through the San Elijo Ocean Outfall*.

implementation of new and improved monitoring and assessment programs for ocean waters in the San Diego Region.

Refer to section 5 of the MRP (Attachment E).

7.3.1 Kelp Bed Canopy Monitoring Requirements

Kelp consists of several 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.

Refer to section 5.1 of the MRP (Attachment E).

7.3.2 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 United States residents that engage in a wide variety of industrial, military, and recreational activities. Approximately 5,600 square miles of watersheds, half of which are 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 collaborate in investigating the condition of marine ecosystems across different locations and time periods. This joint effort extends greater protections to the Bight's diverse habitats and natural resources.

Consistent with Appendix III section 1 of the Ocean Plan, the Discharger may be required 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.

8 Public Participation

The San Diego Water Board considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, San Diego Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process in accordance with the requirements of 40 CFR section 124.10 and Water Code section 13167.5.

8.1 Notification of Interested Parties

The San Diego Water Board staff 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 July 28, 2026.

The public had access to the agenda and any changes in dates and locations through the San Diego Water Board's website at:

<http://www.waterboards.ca.gov/sandiego/>.

8.2 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

Written comments on the Tentative Order had to be received by the San Diego Water Board by 5:00 p.m. on August 27, 2026, to be fully responded to by staff and considered by the San Diego Water Board.

8.3 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: **November 10, 2026**
Time: **9:00 AM**
Location: **San Diego Water Board Meeting Room**
2375 Northside Drive, Suite 108
San Diego, CA 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.

8.4 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 California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within

30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

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

Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see the Water Quality Petitions Website at

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

8.5 Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the San Diego Water Board 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 staff by calling (619) 516-1990.

8.6 Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the San Diego Water Board staff, reference this Facility, and provide a name, address, and phone number.

8.7 Additional Information

Requests for additional information or questions regarding this Order should be directed to the Source Control Regulation unit by email at RB9-NPDESpermit@waterboards.ca.gov or by phone at (619) 516-1990.